

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

MERRITT COMMUNITY COLLEGE

CHILD CARE DEVELOPMENT CENTER PROJECT



Prepared for
Peralta Community College District

December 2019

Prepared by
Amy O. Skewes-Cox, AICP
Environmental Planner

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

MERRITT COMMUNITY COLLEGE

CHILD CARE DEVELOPMENT CENTER PROJECT

Prepared for

Peralta Community College District

December 2019

Prepared by

Amy O. Skewes-Cox, AICP
Environmental Planner

In conjunction with

BASLINE ENVIRONMENTAL CONSULTING
ENVIRONMENTAL COLLABORATIVE
LSA ASSOCIATES
NATALIE MACRIS
PARISI TRANSPORTATION CONSULTING
TOM CAMARA GRAPHICS
WORDSMITH WORD PROCESSING

TABLE OF CONTENTS

CHAPTER I	PROJECT DESCRIPTION	1
CHAPTER II	ENVIRONMENTAL CHECKLIST	15
	I. AESTHETICS	15
	II. AGRICULTURAL AND FORESTRY RESOURCES	18
	III. AIR QUALITY	20
	IV. BIOLOGICAL RESOURCES	30
	V. CULTURAL RESOURCES	41
	VI. ENERGY	46
	VII. GEOLOGY AND SOILS.....	47
	VIII. GREENHOUSE GAS EMISSIONS.....	55
	IX. HAZARDS AND HAZARDOUS MATERIALS	59
	X. HYDROLOGY AND WATER QUALITY	65
	XI. LAND USE AND PLANNING	70
	XII. MINERAL RESOURCES	71
	XIII. NOISE	72
	XIV. POPULATION AND HOUSING	83
	XV. PUBLIC SERVICES.....	84
	XVI. RECREATION	86
	XVII. TRANSPORTATION.....	87
	XVIII. TRIBAL CULTURAL RESOURCES.....	89
	XIX. UTILITIES AND SERVICE SYSTEMS.....	91
	XX. WILDFIRE	94
	XXI. MANDATORY FINDINGS OF SIGNIFICANCE	96

APPENDICES

APPENDIX A:	MITIGATION MEASURES TO BE INCORPORATED INTO PROJECT
APPENDIX B:	AIR QUALITY BACKGROUND DATA (available at Peralta Community College District office)
APPENDIX C:	BIOLOGY BACKGROUND INFORMATION

LIST OF FIGURES

Figure 1	Regional and Project Location	3
Figure 2	Merritt Community College Campus Map	4
Figure 3	Site Plan and Grading.....	6
Figure 4	Exterior Elevations No. 1	9
Figure 5	Exterior Elevations No. 2	10
Figure 6 (a-c)	Views of Site	16
Figure 7	Special-Status Plant Species and Sensitive Natural Communities	34
Figure 8	Special-Status Animal Species and Critical Habitat	35

LIST OF TABLES

Table 1	Bay Area Air Quality Management District Project-Level Thresholds of Significance	21
Table 2	Project Consistency with Bay Area Air Quality Management District 2017 Clean Air Plan	23
Table 3	Project Land Use Input Parameters for California Emissions Estimator Model (CalEEMod) Used to Estimate Air Emissions	24
Table 4	Construction Assumptions for California Emissions Estimator Model (CalEEMod).....	24
Table 5	Estimated Project Construction Air Emissions (Pounds per Day)	26
Table 6	Estimated Project Operation Air Emissions	26
Table 7	Health Risks and Hazards at Maximally Exposed Individual Student (MEIS) During Project Construction	29
Table 8	Active Earthquake Faults near Project Site.....	49
Table 9	Project Land Use Input Parameters for California Emissions Estimator Model (CalEEMod) Used to Estimate Greenhouse Gas Emissions.....	57
Table 10	Operation Assumptions for California Emissions Estimator Model (CalEEMod) Estimate of Project Greenhouse Gas Emissions	58
Table 11	Average Greenhouse Gas Emissions from Project Operation	58
Table 12	Definition of Acoustical Terms	73
Table 13	Typical Noise Levels from Construction Equipment (dBA).....	77
Table 14	Calculated Noise Levels at Nearest Noise-Sensitive Receptors for Two Noisiest Pieces of Equipment from Each Project Construction Phase (dBA)	77
Table 15	Vibration Criteria To Prevent Disturbance – RMS (VdB).....	80
Table 16	Vibration Criteria To Prevent Damage To Structures – PPV (In/Sec)	80
Table 17	Reference Vibration Levels and Buffer Distances for Construction Equipment.....	81

CHAPTER I PROJECT DESCRIPTION

1. **Project Title:** Merritt Community College Child Care Development Center (CCDC)
2. **Lead Agency Name and Address:**
Peralta Community College District
333 East 8th Street
Oakland, CA 94606
3. **Contact Person and Phone Number:** Ms. Atheria Smith, Director of Facilities Planning and Development (510-587-7864)
4. **Project Location:**
Merritt Community College
12500 Campus Drive
Oakland, CA 94619
Assessor's Parcel Number (APN): 37A-3141-1-11
5. **Project Sponsor's Name and Address:**
Peralta Community College District
333 East 8th Street
Oakland, CA 94606
6. **General Plan Designation:** Institutional (City of Oakland, 1998)
7. **Zoning:** Hillside Residential (RH-4) (Lots 6,500 to 8,000 square feet) (City of Oakland, 1997)
8. **Description of Project:**

Introduction

The proposed project includes the construction of a two-story (30-foot-tall, excluding rooftop mechanical equipment and screening), 20,000-gross-square-foot Child Care Development Center (CCDC) on the Merritt Community College campus, on an approximately 90,000-square-foot project site east of existing Building E. Similar to the existing Child Care Development daycare program on the campus, the new CCDC building would be licensed to accommodate up to 98 pre-school age students and toddlers/infants (ages 2.9 months to 5 years), 70 to 140 college-age students, and 15 full-time faculty/educational staff. The project site is currently undeveloped and was previously used for temporary portable classrooms.

The Peralta Community College District (PCCD) Board of Trustees will serve as the lead agency for the California Environmental Quality Act (CEQA) document for the CCDC project.

After the adoption of the appropriate document that addresses CEQA, the new building can be approved. Construction will also require the prior approval of the Division of the State Architect (DSA). Detailed floor plans and other drawings can be reviewed at the PCCD offices located at 333 East 8th Street, Oakland, CA and by contacting Ms. Atheria Smith, Director of Facilities Planning and Development, at 510-587-7864.

Project Location and Site Characteristics

The Merritt Community College campus is located on Campus Drive in the eastern hills of the City of Oakland in a neighborhood that primarily consists of single-family homes. Access to the project site is from Campus Drive and Margie Lane, which is internal to the campus. A regional and project location map is provided in **Figure 1**.

Major highway access to the project site is available from Highway 13, about 1.3 miles west of the campus. Redwood Road is a main exit from this highway for those coming from the north, south, and west, and Redwood Road connects with Campus Drive. For those coming from the east, Skyline Boulevard connects to Redwood Road.

The project site is located in the northeastern edge of the campus just east of Building E. This portion of the campus has been disturbed by previous construction related to grading of the site for use for temporary classroom buildings (shown in **Figure 2**) that were removed many years ago, and the addition of underground utilities across the site. The majority of the site is composed of bare, level soil with very limited vegetation. North of the site is a wooded area that is addressed in more detail in Chapter II, Section IV, Biological Resources, of this Initial Study.

Project Need

The existing Child Care Development daycare program is currently split between two existing facilities: 1) a converted prefabricated metal building located in the northern portion of the campus (see Figure 2), and 2) a portion of the 1960s Building "A," which is located adjacent to the metal building and which originally housed the auto shop program. Although these two buildings have been adapted to serve the needs of the program, neither building was intended for this function and spaces lack the programmatic features suggested by PCCD and State of California guidelines. Limited classroom space, minimal office space, lack of formal observation areas, and limited parental/community space result in an insufficient setup for the Child Care Development program (AE3 Partners, 2019a). Furthermore, the buildings are now in excess of 30 years of age and at the end of their lifecycle. Thus, the program is proposed to be relocated to a new campus location. No other uses are currently proposed for the existing Child Care Development daycare program buildings.

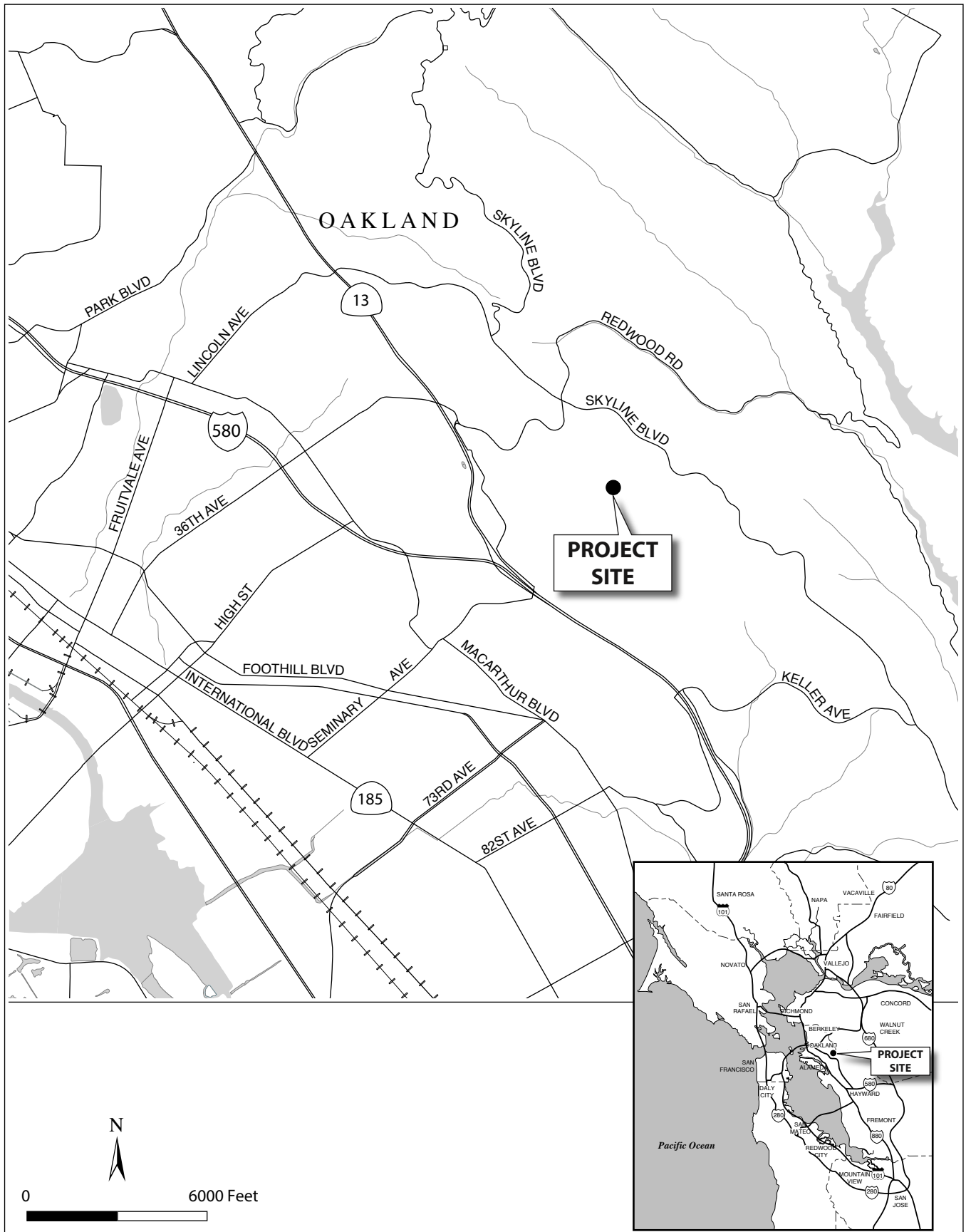
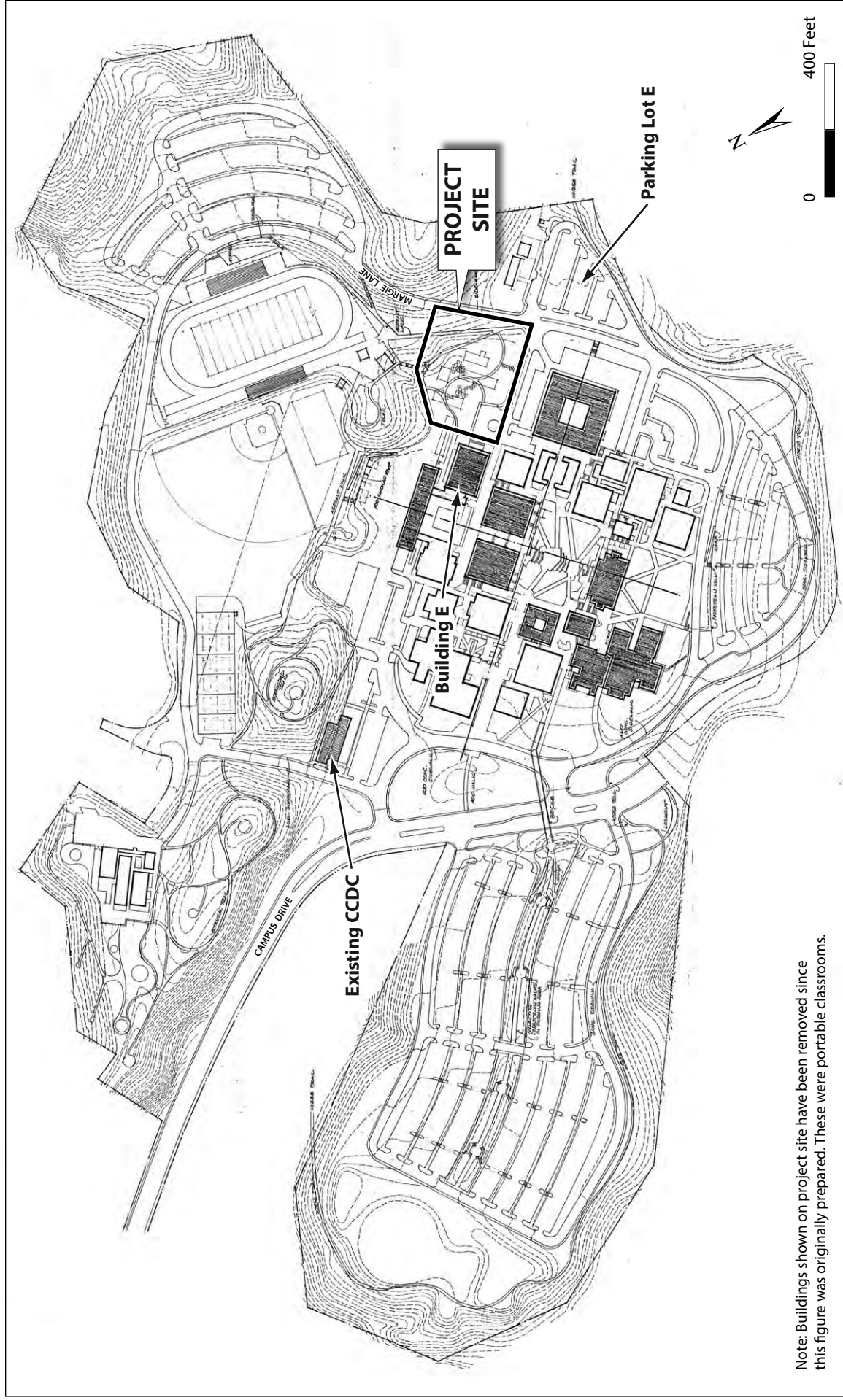


Figure 1

SOURCE: Placemakers, 2012

REGIONAL AND PROJECT LOCATION



Note: Buildings shown on project site have been removed since this figure was originally prepared. These were portable classrooms.

Figure 2

MERRITT COMMUNITY COLLEGE CAMPUS MAP

SOURCE: Reynolds and Chamberlain; Wurster, Bernardi and Emmons, 1976

Project Characteristics

The proposed CCDC would be located on the eastern edge of the Merritt Community College campus, on a project site east of Building E. The new CCDC would be designed to accommodate both child care programs and college student classrooms, with administrative and support spaces, as described further below. Four pre-school classrooms would be provided for the lab practicum, with the possibility to divide one classroom into two spaces that can accommodate eight infants/toddlers each should this be needed.

Two classrooms would be provided for 30 college students each, and these could possibly be shared with Nursing, Nutrition, and Landscape/Horticulture programs as needed. Two additional classrooms for college students would also be provided. Two observation areas are included for the pre-school classrooms. Outdoor areas would include play structures, landscaped areas, a garden area, and fencing/gates.

The CCDC would be used by the children of registered students, faculty, and staff.¹ It would also provide classroom space for students studying Early Childhood Education as part of their program at Merritt Community College. The CCDC would include the following elements:

- Four pre-school classrooms
- Restrooms
- Two observation rooms, each shared between two classrooms
- Two meeting/conference rooms
- Four adult student education classrooms
- Resource room
- Entry lobby
- Food preparation area and storage
- Staff workroom and storage
- Staff and administrative offices (7)
- Nurse room
- Custodial closet/bulk storage
- Electrical/data room
- Play structures
- Hardscape and softscape play areas (approximately 7,000 square feet)
- Irrigated landscaped areas
- Garden area (both ornamental and food)
- Drop-off parking spaces²
- Fencing and gates
- Site lighting

The site plan for the proposed project is shown in **Figure 3**. Site access would be from Margie Lane near Parking Lot E (see Figure 2). A small parking area would be used for drop-off and parking. A total of four Americans with Disabilities Act (ADA) parking spaces and four drop-off spaces would be provided out of the total 16 parking spaces. The drop-off spaces would allow parking for about 10 minutes. It is expected that about eight of the total spaces would be used by on-site staff and other staff would use Parking Lot F on the campus. The proposed project would also include a new service vehicle driveway southeast of the new building.

¹ Any other spaces would be open to the public on a first come/first serve basis.

² There are currently nine parking spaces, four of which are accessible, located at the turnaround south of the proposed project building. This parking area would be renovated to provide eight spaces that would serve the new CCDC.

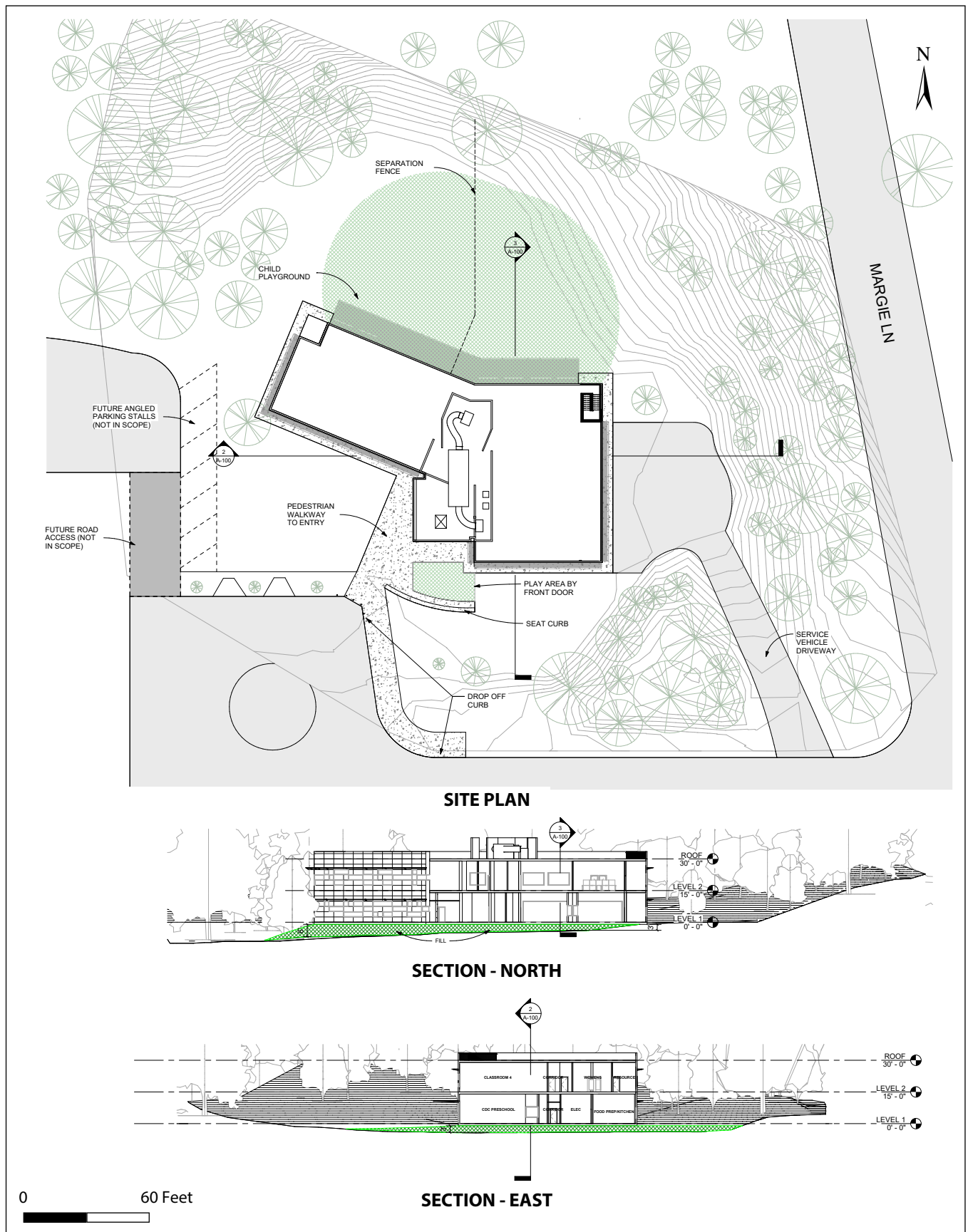


Figure 3

SOURCE: AE3 PARTNERS, 2019

SITE PLAN AND GRADING

Similar to the existing Child Care Development daycare program, the CCDC would be occupied by 40 children but would be licensed for 98 children ages 2.9 months to 5 years. Similar to the existing Child Care Development daycare program, staff would include two teachers, three aides, one director, and one clerical assistant at a time. An estimated 70 to 140 college students would use the CCDC. No students from other programs would use the classrooms provided at the CCDC other than possibly students in Nursing, Nutrition, and Landscape/Horticulture.

No increase in campus population would occur due to this project, because the project would merely be a relocation of an existing facility.

Hours of Operation

The hours of operation when children are to be present would be 7:45 AM to 5:15 PM Monday through Friday. Some of the staff would arrive by 7:30 AM and stay on from 5:15 PM to 5:30 PM to close the CCDC each day. The CCDC would be closed on Saturdays, Sundays, and holidays.

Arrival times for students and staff would be staggered. For pre-school students, it is expected that, on average, 20 to 40 children would arrive between 8:00 AM and 10:00 AM, with only one or two children arriving between 10:00 AM and 11:00 AM. On average, departure times on Mondays through Fridays would be between 2:00 PM and 4:00 PM for about 10 to 30 children and between 4:00 PM and 5:15 PM for about 10 children.

For staff, it is expected that three persons would arrive by 7:30 AM; one would arrive by 8:00 AM; two would arrive by 8:30 AM; and one would arrive by 9:30 AM. Other staff would have varied hours throughout the day. In the afternoon, two staff would leave by 4:30 PM; one would leave by 5:00 PM; and two to four (depending on how many staff are at the site) would leave by 5:30 PM.

Site Preparation, and Tree Removal

Limited site work would be required for the construction of the CCDC. Grading would be required. The site has been previously graded for a time when portable classrooms were located on the site.

Grading of the project site would be balanced as much as possible. At this time, it is estimated that there would be 2,000 cubic yards of cut material that would be used to level the site, thus avoiding off-haul.

Two planted trees on the northern edge of the site (and five dead or dying Monterey pines along Margie Lane to the south of the limits of construction) would be removed from the site.

New Building and Site Characteristics

The new CCDC would have a gross floor area of about 20,000 gross square feet on a site area of about 90,000 square feet (2.06 acres). The building footprint would be about 10,000 square feet. The building height would be 30 feet (two stories) plus rooftop mechanical equipment and a screen wall to visually screen equipment from view. The first floor would include the Lab Practicum/Child

Development Programs and associated support/drop-off areas. Access to outdoor play areas and play structure equipment would be available through the first floor classrooms. All children's areas would be inside of a secure perimeter that would encompass interior spaces and the exterior play area. The second floor would house the adult classrooms, offices, and supporting spaces.

The remaining portions of the site would be used for service access, entrance to the building, landscaping, hardscape play areas, softscape play areas, and pathways/circulation. Playground space would be behind the building to the northeast, shaded from afternoon sun and protected from prevailing sea breezes. Second floor classrooms could potentially overlook the play area.

Exterior materials are expected to include a mixture of cement plaster, cement fiber board siding, or metal panel/screening systems. The roof is likely to be composed of a single-ply roofing system.

Window design is expected to be clear vision glass in metal/aluminum frames. Skylights are not proposed. Exterior building elevations are shown in **Figure 4** and **Figure 5**.

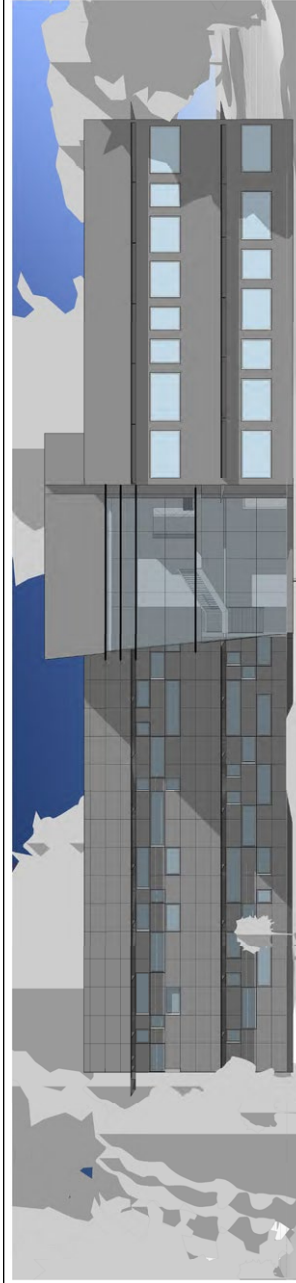
Utilities and Security

Existing domestic water supply to the site is from the East Bay Municipal Utility District (EBMUD) and sanitary sewer service is provided by this same agency. Pacific Gas and Electric Company (PG&E) provides electrical service. Existing utilities on the site include water, gas, storm sewer, sanitary sewer, electrical, telephone, fire alarm, lighting, and security.

The project would include an extension of existing site utility lines to the new CCDC building. The new building has been sited to minimize impacts on existing underground utilities, but a few utilities may require some amount of relocation depending on the final exact location of the building. Existing sanitary sewer, water, and gas lines cut across the center of the site. A storm drain line crosses the western portion of the site and the southern edge of the site. A sanitary sewer crosses the northern portion of the site. Electrical lines come into the northern portion of the site, and a high-voltage line crosses the southern portion of the site. An additional gas line is located near the site's western edge. Relocation plans for these lines have not been finalized, but it is anticipated that the gas line may be the only line to be relocated.

A gray water system has not been proposed for the project. Water conservation features would include low flush toilets, low-flow sinks, and drought-tolerant landscaping in accordance with Leadership in Energy and Environmental Design (LEED) (discussed under "Leadership in Energy and Environmental Design (LEED) Compliance" below).

The CCDC would include a security system that would include controlled access points, an intercom system, limited visual access to classrooms and children's areas, security cameras, internal glazing to allow visual access of children's areas, security fencing for outdoor play areas, and blue safety call stations that meet PCCD standards. The alarm system would connect directly to the Alameda County Sheriff's Office, which has a substation on the campus.



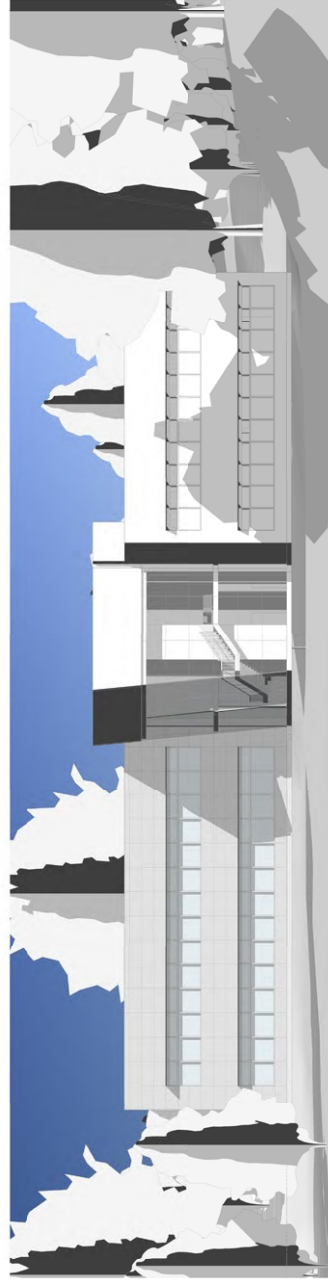
FRONT ELEVATION

0 20 Feet



FRONT ANGLED ELEVATION

0 20 Feet



FRONT ANGLED ELEVATION - ALT

0 20 Feet

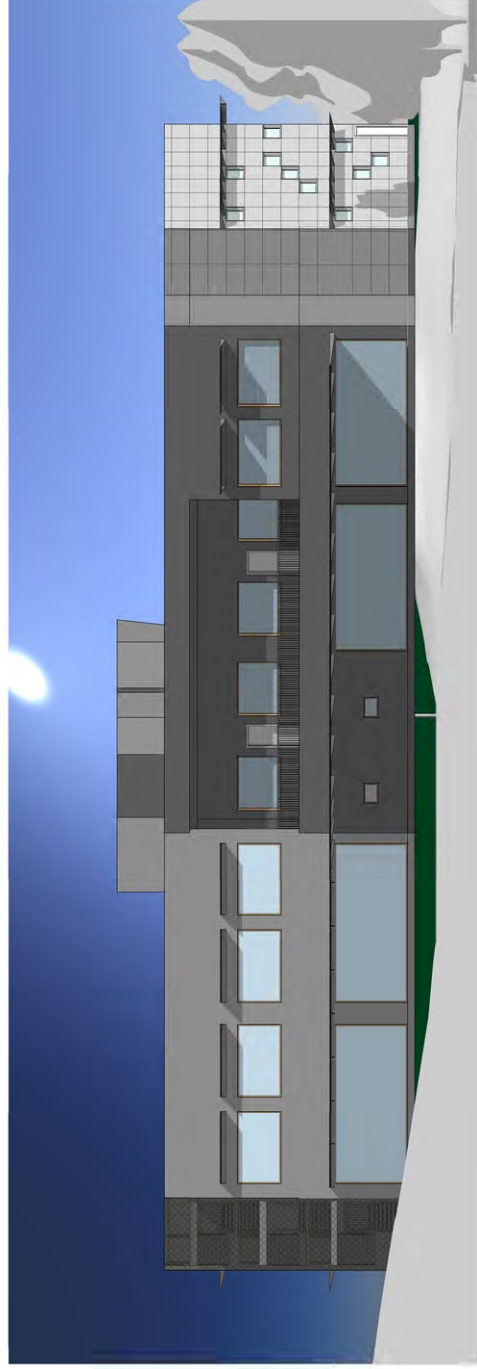
SOURCE: AE3 PARTNERS, 2019

Figure 4

EXTERIOR ELEVATIONS NO. 1



BACK ANGLED ELEVATION



BACK ELEVATION

0 20 Feet

SOURCE: AE3 PARTNERS, 2019



AMY SKEWES-COX
ENVIRONMENTAL PLANNING

Figure 5

EXTERIOR ELEVATIONS NO. 2

Rooftop mechanical equipment may include heating, ventilation, and air conditioning (HVAC) equipment.

Landscaping and Lighting

Landscape plans for the CCDC have not yet been developed. A total of 7,000 square feet of outside softscape and hardscape play area is planned. This area would include play structures, pathways, walls, and turf (either natural or artificial). Fencing would also be provided in this area, with metal and/or wood fencing that is about 6 feet in height.

Lighting at the facility, in addition to interior lighting, would include exterior lights at the entrance, ramps and stairs, walkways, play areas, and rooftop (for servicing equipment).

Outdoor lighting would be designed to maximize public safety and security while minimizing visual intrusion to adjacent residential areas. Outdoor light fixtures would include shrouds and other shielding as appropriate. There would be low-level lighting along pedestrian corridors. To the extent practicable, area lighting and security lighting would be controlled by the use of an energy management system (EMS) and/or motion detector activation to reduce energy consumption.

Phasing of Facilities

Construction of the CCDC is expected to begin in approximately January 2021 and to be completed by approximately June 2022. The project would first entail possible utility relocations (e.g., most likely the on-site gas line) and site preparation, followed by foundation construction, building construction, and landscape improvements. The period of construction is estimated to be 18 months.

Construction Staging

Construction trailers and parking would be located within Parking Lot E just to the south of the project site (see Figure 2).

Leadership in Energy and Environmental Design (LEED) Compliance

The PCCD is committed to meeting certain criteria established by the LEED certification program. LEED allots points for various energy-saving and environmentally preferable features. All design and engineering firms hired by the PCCD to work on bond projects have LEED-certified professionals on their staff assigned to PCCD projects. In addition, the PCCD is using a LEED-certified commissioning agent for enhanced commissioning of all systems on new projects. The PCCD's goal is to meet the criteria of LEED to obtain formal certification.

The green building principles to be integrated into the proposed project include the following:

- Enhanced durability
- Improved occupant comfort

- Energy and water savings such as exceedance of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) energy standards and impounding of rainwater for irrigation
- Reduced maintenance costs
- Conservation of natural resources
- Efficient building systems
- Elimination of waste and pollution
- Preservation of air and water quality
- Enhanced natural daylighting and ventilation
- Improved indoor air quality
- Use of native and drought-resistant plants
- Drainage of hardscape areas into softscape (i.e., landscaped)
- Use of high recycled content materials for design such as high recycled content concrete and steel

Construction Hours

During the construction period, construction would typically occur between 7:00 AM and 5:00 PM, Monday through Friday, and between 9:00 AM and 5:00 PM on Saturdays.

9. Surrounding Land Uses and Setting:

The project site is located on the existing Merritt Community College campus in the Oakland hills. Adjoining the campus are residential neighborhoods that are mostly buffered from the campus by adjacent undeveloped hillside areas. Access to the campus is provided via Campus Drive. Margie Lane provides a circular access within the campus.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

The PCCD is the lead agency that will approve the CEQA document. The Board of Trustees will be responsible for adopting the CEQA document.

The PCCD is the principal authority for the proposed project. The following additional agencies would be involved in discretionary approvals and permits required for various project components:

- **The Division of the State Architect (DSA)** reviews community college project designs to determine compliance with the California Building Code, including fire/life safety, structural integrity, and ADA requirements.
- **The State Fire Marshal's Office** has delegated fire code regulatory responsibilities for community college facilities to DSA.
- **The California Geological Survey** would review the geotechnical report prepared for the project.

The project site is within the City of Oakland boundaries. Although the PCCD will work in collaboration with the City of Oakland, no approvals from the City are required because the PCCD is the lead agency for the Merritt Community College property. For this project, the PCCD plans to adopt a resolution pursuant to Government Code Section 53094 exempting the project and the campus from any zoning ordinances or regulations of the City of Oakland (where the project is located), including, without limitation, the City's Municipal Code, the City's General Plan, and related ordinances and regulations that otherwise would be applicable.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

To date, no California Native American tribe has formally requested consultation notifications with the PCCD in accordance with the requirements of Public Resources Code Section 21080.3.1. Therefore, tribal consultation for the proposed project was not required.

REFERENCES

AE3 Partners, 2019a. Merritt College Child Care Development Center: Draft Project Program & Basis of Design, May 14.

AE3 Partners, 2019b. Merritt College Childcare Development Center (CCDC) 50% Schematic Design, July 30.

City of Oakland, 1997. Oakland Planning Code 1997: A Codification of the General Planning Ordinances of the City of Oakland, CA (amended 2017).

City of Oakland, 1998. *City of Oakland General Plan, Land Use and Transportation Element*.

City of Oakland, 2019. Website for Zoning Map. Available at: <http://oakgis.maps.arcgis.com/apps/webappviewer/index.html?id=3676148ea4924fc7b75e7350903c7224>, accessed on August 21, 2019.

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.

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

Determination. (To be completed by the Lead Agency.)

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 measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all 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.



Signature

12/2/2019

Date

ATHERIA SMITH

Printed Name

For Peralta Community College District

CHAPTER II ENVIRONMENTAL CHECKLIST

The Checklist below addresses 20 environmental topics. Whenever a potentially significant impact is identified, a mitigation measure is identified. A summary of the identified mitigation measures is included as **Appendix A**. At the end of each mitigation measure, the level of significance of the impact after mitigation is shown as “Less than Significant” (LTS) or “Potentially Significant” (PS).³

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

IMPACT EVALUATION

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

Less Than Significant Impact

The project site is part of the developed portion of the Merritt Community College campus and is located just to the east of Building E. **Figure 6 (a-c)** shows views of the project site from the small parking area to the south and southwest of the site. Given the disturbed nature of the site from previous grading and placement of underground utilities, the site would not qualify as a “scenic vista,” nor are

³ This Mitigated Negative Declaration (MND) includes a discussion of impacts of the environment on the project, which, pursuant to recent California Supreme Court authority (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal.4th 369), are not California Environmental Quality Act (CEQA) impacts. The PCCD has included this discussion based on traditional checklist questions in order to be more thorough in the overall analyses.



a. View of southeastern portion of site where new drop-off curb is proposed. A new service vehicle driveway would be located in the background of this viewpoint.



b. Looking east across site from nearby parking lot



c. View looking north across site from nearby parking area. The western and central portions of the CCDC building would be visible from this location. The vegetated oak woodland is visible in the back left portion of this viewing location. Graded portions of the site are visible in the foreground.

Figure 6

VIEWS OF SITE

SOURCE: A. Skewes-Cox, 2019

there scenic vista views that would be affected by the project. The project's impact on scenic vistas would therefore be less than significant.

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

No Impact

The project site is not visible from a State scenic highway, and the project would not affect trees, rock outcroppings, or historic buildings visible from a scenic highway.

- c) *In non-urbanized areas, would the project 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

No Impact

As part of the Merritt Community College campus, the project site is in an urbanized area. The project would not conflict with applicable zoning or other regulations governing scenic quality. The new building would blend architecturally with other campus buildings and would be similar in scale to other campus buildings.

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

Less Than Significant Impact

The new CCDC building would have lighting of interior spaces and lighting of walkways and other external parts of the building for safety purposes. As stated in Chapter I, Project Description, in addition to interior lighting, lighting would include exterior lights at the entrance, ramps and stairs, walkways, play areas, and rooftop (for servicing equipment). This lighting would be shielded to reduce glare and to minimize impacts on the nearest residences. Due to intervening topography and vegetation, the site would not be visible from residences to the northeast. Light and glare impacts would therefore be less than significant.

REFERENCES

Review of Site Plan as shown in Figure 3 and site visit by CEQA author.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL 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 a non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT EVALUATION

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

No Impact

The project site is part of the existing Merritt Community College campus and no agricultural uses occur on the campus. The site is part of the urbanized framework of the City of Oakland and is identified as "Urban and Built Up Land" in the California Farmland Mapping and Monitoring Program (California Department of Conservation, 2018). The project would therefore have no impact on Farmland.

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

No Impact

No zoning for agricultural use applies to the project site.

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

No Impact

No forest land or timberland would be affected by the proposed project. The site has limited vegetation; it was previously used for portable classrooms and has been significantly graded.

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

No Impact

The project site does not contain forest land, and the project would not convert any such land to non-forest use.

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

No Impact

As stated above, the project would not result in conversion of Farmland or forest land.

REFERENCES

California Department of Conservation, Division of Land Resource Protection, 2018. Farmland Mapping and Monitoring Program, Map for Alameda County.

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

INTRODUCTION

The project site is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). In the SFBAAB, the primary criteria air pollutants of concern are ground level ozone formed through reactions of nitrogen oxides (NO_x) and reactive organic gases (ROG), and suspended particulate matter (i.e., respirable particulate matter [PM₁₀] and fine particulate matter [PM_{2.5}]). The BAAQMD's CEQA Air Quality Guidelines (BAAQMD, 2017a) include thresholds of significance to assist lead agencies in evaluating and mitigating air quality impacts under CEQA. The BAAQMD's thresholds established levels at which emissions of ozone precursors (ROG and NO_x), PM₁₀, PM_{2.5}, carbon monoxide (CO), toxic air contaminants (TACs), and odors could cause significant air quality impacts. The scientific soundness of the thresholds is supported by substantial evidence presented in the BAAQMD's Revised Draft Options and Justification Report (BAAQMD, 2009). The BAAQMD's thresholds that relate to the analysis of the project's impacts on the environment are used in this CEQA analysis in conjunction with the BAAQMD's current CEQA Air Quality Guidelines (BAAQMD, 2017a). The thresholds of significance used in this CEQA analysis are summarized in **Table 1**.

TABLE 1 BAY AREA AIR QUALITY MANAGEMENT DISTRICT PROJECT-LEVEL THRESHOLDS OF SIGNIFICANCE

Impact Analysis	Pollutant	Threshold of Significance
Regional Air Quality (Construction)	ROG	54 pounds/day (average daily emission)
	NO _x	54 pounds/day (average daily emission)
	Exhaust PM ₁₀	82 pounds/day (average daily emission)
	Exhaust PM _{2.5}	54 pounds/day (average daily emission)
	Fugitive Dust (PM ₁₀ and PM _{2.5})	Best management practices
Regional Air Quality (Operation)	ROG	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	NO _x	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	Exhaust PM ₁₀	82 pounds/day (average daily emission) 15 tons/year (maximum annual emission)
	Exhaust PM _{2.5}	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
Local Community Risks and Hazards (Operation and/or Construction)	CO	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)
	Exhaust PM _{2.5} (project)	0.3 µg/m ³ (annual average)
	Exhaust PM _{2.5} (cumulative)	0.8 µg/m ³ (annual average)
	TACs (project)	Cancer risk increase > 10 in 1 million Chronic hazard index > 1.0
	TACs (cumulative)	Cancer risk > 100 in 1 million Chronic hazard index > 10.0

Notes: ROG = reactive organic gases; NO_x = nitrogen oxides; PM₁₀ = respirable particulate matter; PM_{2.5} = fine particulate matter; CO = carbon monoxide; TACs = toxic air contaminants; ppm = part per million; µg/m³ = micrograms per cubic meter
Source: BAAQMD, 2017a.

IMPACT EVALUATION

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

Less Than Significant Impact

In accordance with the federal Clean Air Act and California Clean Air Act, the BAAQMD is required to prepare and update an air quality plan that outlines measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve federal and state ambient air quality standards. In April 2017, the BAAQMD adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 CAP), which includes 85 control measures to reduce ROG, NO_x, PM₁₀, PM_{2.5}, TACs, and greenhouse gases (GHGs). The 2017 CAP was developed based on a multi-pollutant evaluation method that incorporates well-established studies and methods on quantifying the health benefits of air quality regulations, computer modeling and analysis of existing air quality monitoring data and emission inventories, and growth projections prepared by the Metropolitan Transportation Commission and the Association of Bay Area Governments (BAAQMD, 2017b).

Based on the BAAQMD's current CEQA Air Quality Guidelines (BAAQMD, 2017a), the following criteria should be considered to determine if a project would conflict with or obstruct implementation of the 2017 CAP:

- Does the project include applicable control measures from the air quality plan?
- Does the project disrupt or hinder implementation of any air quality plan control measures?
- Does the project support the primary goals of the air quality plan?

The 2017 CAP includes control measures that aim to reduce air pollution and GHGs from stationary, area, and mobile sources. The control measures are organized into nine categories: stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants (e.g., methane, black carbon, and fluorinated gases).

As described in **Table 2**, the project would be consistent with applicable control measures from the 2017 CAP. Because the project would not result in any significant and unavoidable air quality impacts related to emissions, ambient concentrations, or public exposures (see Items (b) through (d) below and Section VIII, Greenhouse Gas Emissions, of this Initial Study), the project would support the primary goals of the 2017 CAP. Therefore, based on the BAAQMD's CEQA Air Quality Guidelines (BAAQMD, 2017a), the project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

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

Less Than Significant with Mitigation Incorporated

Construction and operation of the project would generate criteria pollutant emissions that could potentially affect regional air quality. The BAAQMD currently recommends using the most recent version of the California Emissions Estimator Model (CalEEMod Version 2016.3.2) to estimate construction and operational emissions of pollutants for a project. CalEEMod uses widely accepted models for emission estimates combined with appropriate default data for a variety of land use projects that can be used if site-specific information is not available. The default data (e.g., type and power of construction equipment) are supported by substantial evidence provided by regulatory agencies and a combination of statewide and regional surveys of existing land uses. The primary input data used to estimate emissions associated with construction and operation of the project are summarized in **Table 3**. A copy of the CalEEMod report for the project, which summarizes the input parameters, assumptions, and findings, is provided in **Appendix B**, which can be viewed at the PCCD office. To determine if project construction and operation emissions could substantially contribute to existing violations of federal and/or state ambient air quality standards in the SFBAAB, the project's emissions are compared to the BAAQMD's thresholds of significance.

TABLE 2 PROJECT CONSISTENCY WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT 2017 CLEAN AIR PLAN

Control Measures	Proposed Project Consistency
Stationary Sources	The stationary source measures are enforced by the Bay Area Air Quality Management District (BAAQMD) pursuant to its authority to control emissions from permitted facilities. The project would not include any new stationary sources, such as an emergency diesel generator. Therefore, the stationary sources control measures of the 2017 Clean Air Plan (2017 CAP) are not applicable to the project.
Transportation	The transportation control measures are designed to reduce vehicle trips, use, miles traveled, idling, or traffic congestion for the purpose of reducing vehicle emissions. The project operation would not generate any additional vehicle trips compared to the existing conditions. Therefore, the project would be consistent with the transportation control measures of the 2017 CAP.
Energy	The energy control measures are designed to reduce emissions of criteria air pollutants, toxic air contaminants (TACs), and greenhouse gases (GHGs) by decreasing the amount of electricity consumed in the Bay Area, as well as decreasing the carbon intensity of the electricity used by switching to less GHG-intensive fuel sources for electricity generation. Since these measures apply to electrical utility providers and local government agencies (and not individual projects), the energy control measures of the 2017 CAP are not applicable to the project. However, the project's electricity would be supplied by Pacific Gas and Electric Company (PG&E), which supplies about 85 percent of its electric power mix from a combination of renewable and GHG-free sources. ^a
Buildings	The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the building control measures focus on working with local governments that have authority over local building codes to facilitate adoption of best GHG control practices and policies. The project would target Leadership in Energy and Environmental Design (LEED) Silver Certification. Therefore, the project would be consistent with the building control measures of the 2017 CAP.
Agriculture	The agriculture control measures are designed primarily to reduce emissions of methane. Since the project does not include any agricultural activities, the agriculture control measures of the 2017 CAP are not applicable to the project. Any use of the on-site building by the Landscape/Horticulture program would be for educational rather than agricultural purposes.
Natural and Working Lands	The control measures for the natural and working lands sector focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to adopt ordinances that promote urban tree plantings. Since the project does not include the disturbance of any rangelands or wetlands, the natural and working lands control measures of the 2017 CAP are not applicable to the project.
Waste Management	The waste management measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The project would comply with State of California (e.g., California Department of Resources Recycling and Recovery [CalRecycle]) requirements for waste management (e.g., recycling and composting services). Therefore, the project would be consistent with the waste management control measures of the 2017 CAP.
Water	The water control measures to reduce emissions from the water sector will reduce emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works (POTWs), and promoting the use of biogas recovery systems. Since these measures apply to POTWs and local government agencies (and not individual projects), the water control measures of the 2017 CAP are not applicable to the project.
Super GHGs	The super-GHG control measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual projects, the super-GHG control measures of the 2017 CAP are not applicable to the project.

^a Pacific Gas and Electric Company (PG&E), 2019.
Source: BAAQMD, 2017b.

TABLE 3 PROJECT LAND USE INPUT PARAMETERS FOR CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD) USED TO ESTIMATE AIR EMISSIONS

Land Use Type	CalEEMod Land Use Type	Units	Unit Amount
Education	Day-Care Center	1,000 square feet	20
Parking	Parking Lot	spaces	16

Source: CalEEMod (Appendix B).

Construction Emissions

Project construction activities would generate criteria air pollutant emissions that could potentially adversely affect regional air quality. Construction activities would include site preparation, grading, building construction, paving, and applications of architectural coatings. The primary pollutant emissions of concern during project construction would be ROG, NO_x, PM₁₀, and PM_{2.5} from the exhaust of off-road construction equipment and on-road vehicles related to worker vehicles and vendor trucks. In addition, fugitive dust emissions of PM₁₀ and PM_{2.5} would be generated by soil disturbance and demolition activities, and fugitive ROG emissions would result from the application of architectural coatings and paving during construction. Emissions of ROG, NO_x, PM₁₀, and PM_{2.5} during project construction were estimated using the CalEEMod input parameters summarized in **Table 4**.

TABLE 4 CONSTRUCTION ASSUMPTIONS FOR CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

CalEEMod Input Category	Construction Assumptions and Changes to Default Data
Construction Phase and Equipment	Construction is anticipated to occur over 18 months, from January 2021 to June 2022. Total construction emissions from the CalEEMod default construction schedule and equipment use were averaged over the construction duration to obtain the daily average construction emissions.
Material Movement	According to the project description, no soil export is anticipated during site preparation.
Demolition	According to the project description, no major demolition would be included in project construction.

Notes: Default CalEEMod data used for all other parameters not described.

Source: CalEEMod (Appendix B).

Construction Fugitive Dust Emissions

Impact AIR-1: Fugitive dust emissions during project construction could result in a cumulatively considerable net increase in particulate matter concentrations for which the region is non-attainment under federal and state ambient air quality standards. (PS)

Soil disturbance activities during project construction could generate fugitive dust PM₁₀ and PM_{2.5} emissions that could result in a potentially significant impact in relation to ambient air quality standards. The BAAQMD does not have a quantitative threshold of significance for fugitive dust PM₁₀ and PM_{2.5} emissions; however, the BAAQMD considers implementation of Best Management Practices (BMPs) to

control dust during construction sufficient to reduce air quality impacts from fugitive dust to a less-than-significant level. More specifically, the BAAQMD recommends that all construction projects implement the Basic Construction Mitigation Measures from the BAAQMD's CEQA Air Quality Guidelines (BAAQMD, 2017a) to reduce emissions of fugitive dust (regardless of the estimated emissions). The BAAQMD's Basic Construction Mitigation Measures for controlling dust are included in Mitigation Measure AIR-1, below.

Mitigation Measure AIR-1: During project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (BAAQMD) and these measures shall be included in contract specifications:

- *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
- *If any hauling activities would occur, all haul trucks transporting soil, sand, or other loose material off-site shall be covered.*
- *All visible mud or dirt track-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.*
- *A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.*

In addition, an independent construction monitor or a Peralta Community College District (PCCD) staff member shall conduct periodic site inspections, but in no event fewer than four total inspections, during the course of construction to ensure these mitigation measures are implemented and shall issue a letter report documenting the inspection results. Reports indicating non-compliance with construction mitigation measures shall be cause to issue a stop-work order until such time as compliance is achieved. (LTS)

Construction ROG, NO_x, and Exhaust PM₁₀ and PM_{2.5} Emissions

Estimates of construction emissions were averaged over the total working days and compared to the BAAQMD's thresholds of significance in **Table 5**. The project's estimated emissions for ROG, NO_x, and exhaust PM₁₀ and PM_{2.5} were below the applicable thresholds. Therefore, project construction would not result in a considerable net increase in ozone and exhaust particulate matter concentrations for which the region is non-attainment under federal and state ambient air quality standards and the associated impact would be less than significant.

TABLE 5 ESTIMATED PROJECT CONSTRUCTION AIR EMISSIONS (POUNDS PER DAY)

	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}
Unmitigated Construction Emissions	0.8	2.3	0.1	0.1
BAAQMD's Thresholds of Significance	54	54	82	54
Exceed Threshold?	No	No	No	No

Note: BAAQMD = Bay Area Air Quality Management District; ROG = reactive organic gases; NO_x = nitrogen oxides; PM₁₀ = respirable particulate matter; PM_{2.5} = fine particulate matter
Source: CalEEMod (Appendix B).

Operational Emissions

Project operations would generate criteria air pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern during project operation would be ROG, NO_x, and exhaust PM₁₀ and PM_{2.5} from energy use and area sources (e.g., consumer products and architectural coatings). Because the project is not anticipated to generate additional mobile trips compared to the existing conditions, the project would not result in a net increase in mobile emissions of criteria pollutants (AE3 Partners, 2019). Project emissions were estimated for 2022, which is the earliest expected year of operation.

The estimated emissions of criteria pollutants and precursors during the operational phase of the project are compared to the BAAQMD's thresholds of significance in **Table 6**. Because the estimated emissions for ROG, NO_x, and exhaust PM₁₀ and PM_{2.5} were below the thresholds, project operation would not result in a considerable net increase in ozone and particulate matter concentrations for which the region is non-attainment under federal and state ambient air quality standards and the associated impact would be less than significant.

TABLE 6 ESTIMATED PROJECT OPERATION AIR EMISSIONS

Emissions Scenario	Maximum Annual Emissions (Tons)				Average Daily Emissions (Pounds)			
	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}
Area	0.09	<0.01	<0.01	<0.01	0.49	<0.01	<0.01	<0.01
Energy	<0.01	0.02	<0.01	<0.01	0.01	0.09	0.01	0.01
Total Emissions	0.1	<0.1	<0.1	<0.1	0.5	0.1	<0.1	<0.1
Thresholds of Significance	10	10	15	10	54	54	82	54
Exceed Threshold?	No	No	No	No	No	No	No	No

Note: ROG = reactive organic gases; NO_x = nitrogen oxides; PM₁₀ = respirable particulate matter; PM_{2.5} = fine particulate matter
Source: CalEEMod (Appendix B).

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

Less Than Significant Impact

The term “sensitive receptor” refers to a location where individuals are more susceptible to poor air quality. Sensitive receptors include schools, convalescent homes, and hospitals because the very young, the old, and the infirm are more susceptible than the rest of the public to air quality-related health problems. Residential areas are also considered sensitive to poor air quality because people are often at home for extended periods, thereby increasing the duration of exposure to potential air contaminants. The BAAQMD recommends evaluating the potential impacts on sensitive receptors located within 1,000 feet of a project. The project’s potential impacts on sensitive receptors from emissions of CO and TACs are discussed below.

Localized Carbon Monoxide Concentrations

The occurrence of localized CO concentrations, also known as “hotspots,” can affect sensitive receptors in local communities. The source of local CO emissions is often associated with heavy traffic congestion, which most frequently occurs at signalized intersections of high-volume roadways. Because operation of the proposed project would not result in a net increase in mobile trips, the project would not be expected to increase local CO emissions. Therefore, the project would have a less-than-significant impact on nearby sensitive receptors related to local CO concentrations.

Toxic Air Contaminants from Construction

Project construction would generate diesel particulate matter (DPM) and PM_{2.5} emissions from off-road diesel construction equipment and on-road vehicles traveling to and from the project site, and these emissions could affect nearby sensitive receptors. The annual average concentrations of DPM and PM_{2.5} concentrations were estimated within 1,000 feet of the proposed project using the U.S. Environmental Protection Agency (EPA) Industrial Source Complex Short Term (ISCST3) air dispersion model (EPA, 1995). For this analysis, emissions of exhaust PM₁₀ were used as a surrogate for DPM. Because less than 1 percent of the total construction emissions of DPM and PM_{2.5} would be generated by on-road worker and vendor vehicles traveling to and from the project site, only the off-road diesel construction equipment was included in the analysis. The input parameters and assumptions used for estimating emission rates of DPM and PM_{2.5} from off-road diesel construction equipment are included in **Appendix B**, which is available at the PCCD’s office.

The exhaust from off-road equipment was represented in the ISCST3 model as a series of volume sources with a release height of 5 meters to represent the mid-range of the expected plume rise from frequently used construction equipment. Dispersion of air pollutants from off-road construction equipment was modeled using the χ/Q (“chi over q”) method, such that each source has a unit emission rate (e.g., 1 gram per second for volume sources). The annual average concentration profiles from the air dispersion model were then scaled according to the ratio between the unit emission rate and the actual emission rate from each source. Actual emission rates for off-road equipment were based on the actual hours of work and averaged over the entire duration of construction. Daily

emissions from construction were assumed to occur from 7:00 AM to 5:00 PM, Monday through Friday.⁴

A uniform grid of receptors spaced 10 meters apart with receptor heights of 1.8 meters was encompassed around the project site as a means of developing isopleths (i.e., concentration contours) that illustrate the air dispersion pattern from the various emission sources. Terrain variation on and near the project site was incorporated into the ISCST3 model to assign elevations to the emission sources and receptors, based on the United States Geological Survey 7.5-minute Digital Elevation Model data. The ISCST3 model input parameters included 3 years of BAAQMD meteorological data from the Oakland Sewage Treatment Plant weather station located about 7.5 miles northwest of the project site.

Based on the results of the air dispersion model (see **Appendix B**), potential health risks were evaluated for the maximally exposed individual student (MEIS) to the southwest of the project site, assuming that the existing Child Care Development daycare program was located at a campus building approximately 95 feet southwest of the proposed project construction area.⁵ The nearest off-site sensitive receptor is located in a single-family home about 280 feet south of the proposed project; however, since the nearest off-site sensitive receptor is not in the area affected by the plume dispersion of the construction emissions, a health risk analysis was not conducted for the off-site sensitive receptor.

In accordance with guidance from the BAAQMD (2016) and the Office of Environmental Health Hazard Assessment (OEHHA, 2015), a health risk assessment was conducted to calculate the incremental increase in cancer risk and chronic hazard index (HI) to the MEIS from DPM emissions during construction. Analysis of acute non-cancer health hazards from construction activity is not recommended by the BAAQMD, nor has a reference exposure level been approved by OEHHA and the California Air Resources Board (CARB). The annual average concentration of DPM was used to assess health risks at the MEIS. At the MEIS location, the incremental increase in cancer risk from on-site DPM emissions during construction was assessed for a young child exposed to DPM for 18 months starting from the age of 2.9 months, which is the earliest age at which a student can enroll in the Child Care Development program. This exposure scenario represents the most sensitive individuals who could be exposed to adverse air quality conditions in the vicinity of the project site. The input parameters and results of the health risk assessment are included in **Appendix B**.

Estimated health risks at the MEIS from DPM and PM_{2.5} concentrations during construction of the proposed project are summarized and compared to the BAAQMD's thresholds of significance in **Table 7**. The estimated excess cancer risk, the chronic HI, and the annual average PM_{2.5} concentrations at the MEIS were below the BAAQMD's thresholds of significance. Therefore,

⁴ If construction occurs on Saturdays, no change in overall health risks would occur because the longer work hours would be countered by the lower average concentration of pollutants.

⁵ This is a conservative assumption because only adults are currently using the building approximately 95 feet southwest of the construction area where child development courses are taught. The building where children are currently spending time is about 900 feet upwind and northwest of the construction area.

TABLE 7 HEALTH RISKS AND HAZARDS AT MAXIMALLY EXPOSED INDIVIDUAL STUDENT (MEIS) DURING PROJECT CONSTRUCTION

Sensitive Receptor	Diesel Particulate Matter (DPM)		Exhaust PM _{2.5}
	Cancer Risk (per million)	Chronic Hazard Index	Annual Average Concentration (µg/m ³)
Maximally Exposed Individual Student (MEIS)	1.3	<0.01	<0.01
Thresholds of Significance	10	1	0.3

Notes: PM_{2.5} = fine particulate matter; µg/m³ = micrograms per cubic meter
Source: See Appendix B.

construction of the proposed project would have a less-than-significant impact related to the exposure of sensitive receptors to substantial concentrations of DPM and PM_{2.5}.

Toxic Air Contaminants from Operation

Project operations would not introduce a new stationary source of TAC emissions. Therefore, project operations would have no impact on nearby sensitive receptors related to substantial pollutant concentrations.

Cumulative TAC Emissions

There is no existing stationary source or foreseeable future source of TAC within 1,000 feet of the MEIS according to the BAAQMD and the City of Oakland, respectively (BAAQMD, 2019; City of Oakland, 2019). Therefore, the cumulative impact on nearby sensitive receptors from TAC and PM_{2.5} emissions during construction of the proposed project would be less than significant.

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

Less Than Significant Impact

Project construction and operation would not be expected to generate significant odors because the project would not include handling or generation of noxious materials. Therefore, project impacts related to odors would be less than significant.

REFERENCES

AE3 Partners, 2019. E-mail re. "Full List of Merritt CEQA Questions and RESPONSES," from Doug Davis to Amy Skewes-Cox. August 22.

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report, California Environmental Act Thresholds of Significance. October.

- Bay Area Air Quality Management District (BAAQMD), 2016. Air Toxics NSR Program, Health Risk Assessment Guidelines, December.
- Bay Area Air Quality Management District (BAAQMD), 2017a. CEQA Air Quality Guidelines, May.
- Bay Area Air Quality Management District (BAAQMD), 2017b. 2017 Clean Air Plan: Spare the Air, Cool the Climate, April 19.
- Bay Area Air Quality Management District (BAAQMD), 2019. Permitted Stationary Sources 2017. Available at: <https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65>, accessed on August 26, 2019.
- California Air Pollution Control Officers Association, 2016. California Emissions Estimator Model (CalEEMod), Version 2016.3.2.
- City of Oakland, 2019. Major Projects List (as of 2019-04-05). Publish Date: April 16, 2019. Available at: <https://www.oaklandca.gov/documents/major-projects-list-as-of-2019-04-05>, accessed on September 4, 2019.
- Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February.
- Pacific Gas and Electric Company (PG&E), 2019. Exploring Clean Energy Solutions. Available at: https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy, accessed on October 10, 2019.
- U.S. Environmental Protection Agency (EPA), 1995. Industrial Source Complex Short Term (ISCST3) Air Dispersion Model.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

INTRODUCTION

Information regarding biological and wetland resources for the project site is based on the review of available information, including project designs and the occurrence records of the California Natural Diversity Data Base (CNDDB) of the California Department of Fish and Wildlife (CDFW). A systematic survey for rare plants was conducted on May 2, 2019, by the Initial Study botanist together with a field reconnaissance survey by the Initial Study biologist to confirm existing conditions at the project site and assess the potential impacts of the proposed project. An arborist report (Bay Area Plant Consultants, 2019) was prepared for the PCCD by Judy Thomas of Bay Area Plant Consultants to identify trees possibly affected by the project.

The project site is located at the eastern edge of the Merritt Community College campus in the Oakland hills. Most of the site was disturbed and graded in the past and now supports a cover of primarily non-native grassland. Planted landscape trees border the southern and western edge of the site. A largely intact woodland dominated by coast live oak (*Quercus agrifolia*) remains to the northeast of the site. In addition to the native coast live oak, other tree species present on the site and vicinity include sycamore (*Platanus acerifolia*), Monterey pine (*Pinus radiata*), coast redwood (*Sequoia sempervirens*), and eucalyptus (*Eucalyptus sideroxylon*). The arborist report (Bay Area Plant Consultants, 2019) provides an inventory of all trees in the vicinity of the site, including species, trunk size, and condition.

Where the tree canopy is open or sparse, non-native grasses and forbs form the dominant cover over the site. Common species include wild oats (*Avena* spp.), bromes (*Bromus* spp.), filaree (*Erodium* spp.), Festuca (*Festuca* spp.), common vetch (*Vicia sativa* ssp. *sativa*), thistles (*Sonchus* spp.), clovers (*Trifolium* spp.), and dock (*Rumex* spp.), among others. Native grasses and forbs are scattered through the grasslands and include purple needle grass (*Stipa pulchra*), miners lettuce (*Claytonia perfoliate*),

California poppy (*Eschscholzia californica*), common bedstraw (*Galium aparine*), Douglas iris (*Iris douglasiana*), lupines (*Lupinus* spp.), and common bedstraw (*Galium aparine*). These native species do not occur in densities that would qualify as a native grassland and may have been planted as part of habitat enhancement over the years as part of the work performed by the nearby Environmental Education Center. This vegetation includes what appear to be established shrub plantings of common monkeyflower (*Diplacus aurantiacus*), California sagebrush (*Artemisia californica*), California coffeeberry (*Frangula californica*), and coyote brush (*Baccharis pilularis* ssp. *consanguinea*). Invasive species are also spreading through some areas of the site; these species include thickets of French broom (*Genista monspessulana*), poison hemlock (*Conium maculatum*), wild artichoke (*Cynara cardunculus*), petty spurge (*Euphorbia peplus*), Mediterranean mustard (*Hirschfeldia incana*), and sweet fennel (*Foeniculum vulgare*). French broom is particularly problematic throughout the Oakland hills, spreading through grasslands and woodland understory, contributing to fire fuel loads and replacing native cover.

The woodlands and open grasslands provide denning, nesting and foraging opportunities for numerous species of small mammals, reptiles, and birds. Mammals and reptiles found in the site vicinity likely include deer mouse, woodrat, striped skunk, western skink, newts, ensatina, ring-necked snake, and rubber boa. Larger mammals such as black-tailed deer and predatory species such as grey fox, mountain lion, and coyote most likely forage throughout the woodlands and grasslands in the site vicinity, although cyclone fencing around the nearby football field and edge of the campus to the south currently limits movement opportunities for larger terrestrial species. The trees provide nesting cavities, perching and foraging opportunities, and nesting substrate for numerous species of birds, including jays, woodpeckers, kinglets, and bushtits. Several species of raptors use the mature trees for roosting and possibly nesting with foraging in the understory and areas of open grassland. These raptor species include red-tailed hawk, Cooper's hawk, white-tailed kite, turkey vulture, great-horned owl, and barn owl.

IMPACT EVALUATION

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

Less Than Significant with Mitigation Incorporated

A record search conducted by the CNDDB and the other relevant information sources indicate that numerous plant and animal species with special status have either been recorded from or are suspected to occur in the Oakland hills of Alameda County. Special-status species⁶ are plants and

⁶ Special-status species include:

- Officially designated (rare, threatened, or endangered) and candidate species for listing identified by the CDFW;
- Officially designated (threatened or endangered) and candidate species for listing identified by the U.S. Fish and Wildlife Service (USFWS);
- Species considered to be rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines, such as those with a rank of 1 or 2 in the *Inventory of Rare and Endangered Plants of California* maintained by the California Native Plant Society (CNPS); and

animals that are legally protected under the State of California and/or federal Endangered Species Acts⁷ or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species protected by the California Endangered Species Act (CESA) and federal Endangered Species Act (FESA) often represent major constraints to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"⁸ of these species.

Figures 7 and 8 show the distribution of special-status plant and animal species, respectively, as reported by the CNDDB within approximately 5 miles of the project site. According to CNDDB records, no special-status plant or animal species have been reported from the project site or immediate vicinity, but general occurrences have been recorded from the Oakland hills. These include general occurrences of most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*), Diablo helianthella (*Helianthella castanea*), Bay checkerspot butterfly (*Euphydryas editha bayensis*), and American badger (*Taxidea taxus*). Information on the name, status and distribution of each of these and the other species mapped in Figures 7 and 8 is provided in the summary table by the CNDDB contained in **Appendix C**.

Most of the special-status species reported from the Oakland vicinity occur in natural habitats such as coastal salt marsh, riparian woodlands, native grasslands, and forest habitats, all of which are absent from the project site. A number of special-status plant species are known from open woodlands and grasslands of the Oakland hills, but none were detected during the systematic survey of the site and, due to the extent of past grading and other disturbance, none are believed to be present. With the exception of possible presence of nesting birds that would be protected under state and federal regulations when the nests are in active use, no special-status species are suspected to occur on the project site. The site does not contain suitable habitat for the Alameda whipsnake (*Masticophis lateralis euryxanthus*), which is state and federally listed as threatened, or the California red-legged frog (*Rana draytonii*), which is federally listed as threatened. Typical core habitat for Alameda whipsnake is chaparral and open scrub, with abundant prey, though they may disperse through adjacent woodland, grassland, and riparian habitat. California red-legged frog are found in ponds and slow-moving streams with pools with emergent vegetation and protective cover, and individual frogs may disperse through surrounding uplands in search of breeding and foraging habitat. These habitat types are not found on the project site or in adjacent areas. As indicated in Figure 8, designated critical habitat for Alameda

▪ Possibly other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those with a rank of 3 and 4 in the CNPS *Inventory* or identified as animal "Species of Special Concern" (SSC) by the CDFW. Species of Special Concern have no legal protective status under the CESA but are of concern to the CDFW because of severe decline in breeding populations in California.

⁷ The federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of the FESA and pertains to native California species.

⁸ "Take" as defined by the FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the United States Fish and Wildlife Service (USFWS) to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFW also considers the loss of listed species habitat as take, although this policy lacks statutory authority and case law support under the CESA.

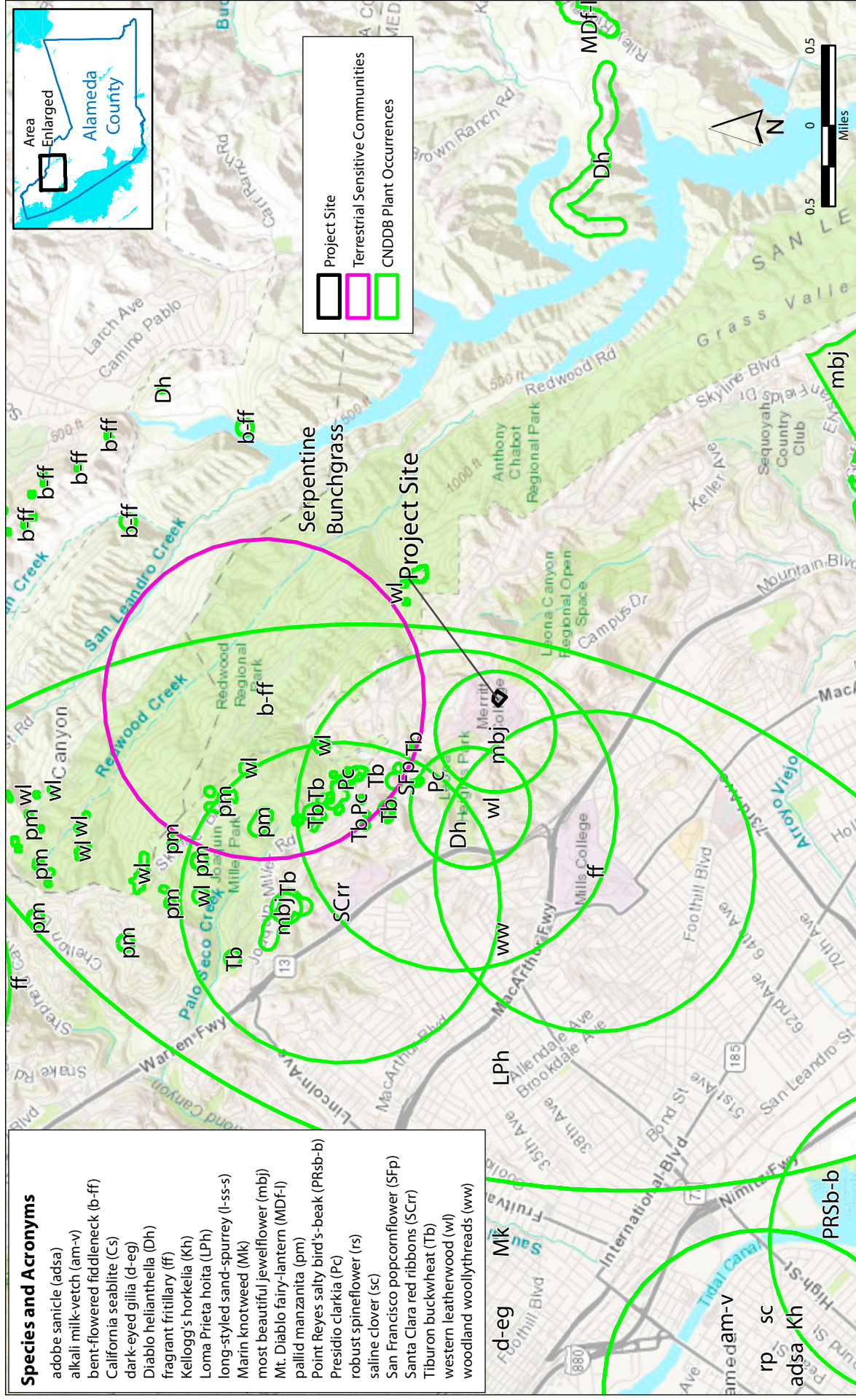


Figure 7

SOURCE: California Natural Diversity Database accessed on August 15, 2019; USGS base map by ESRI and NGS. Map produced by www.digitalmappingsolutions.com on 8/15/2019.

SPECIAL-STATUS PLANT SPECIES AND SENSITIVE NATURAL COMMUNITIES

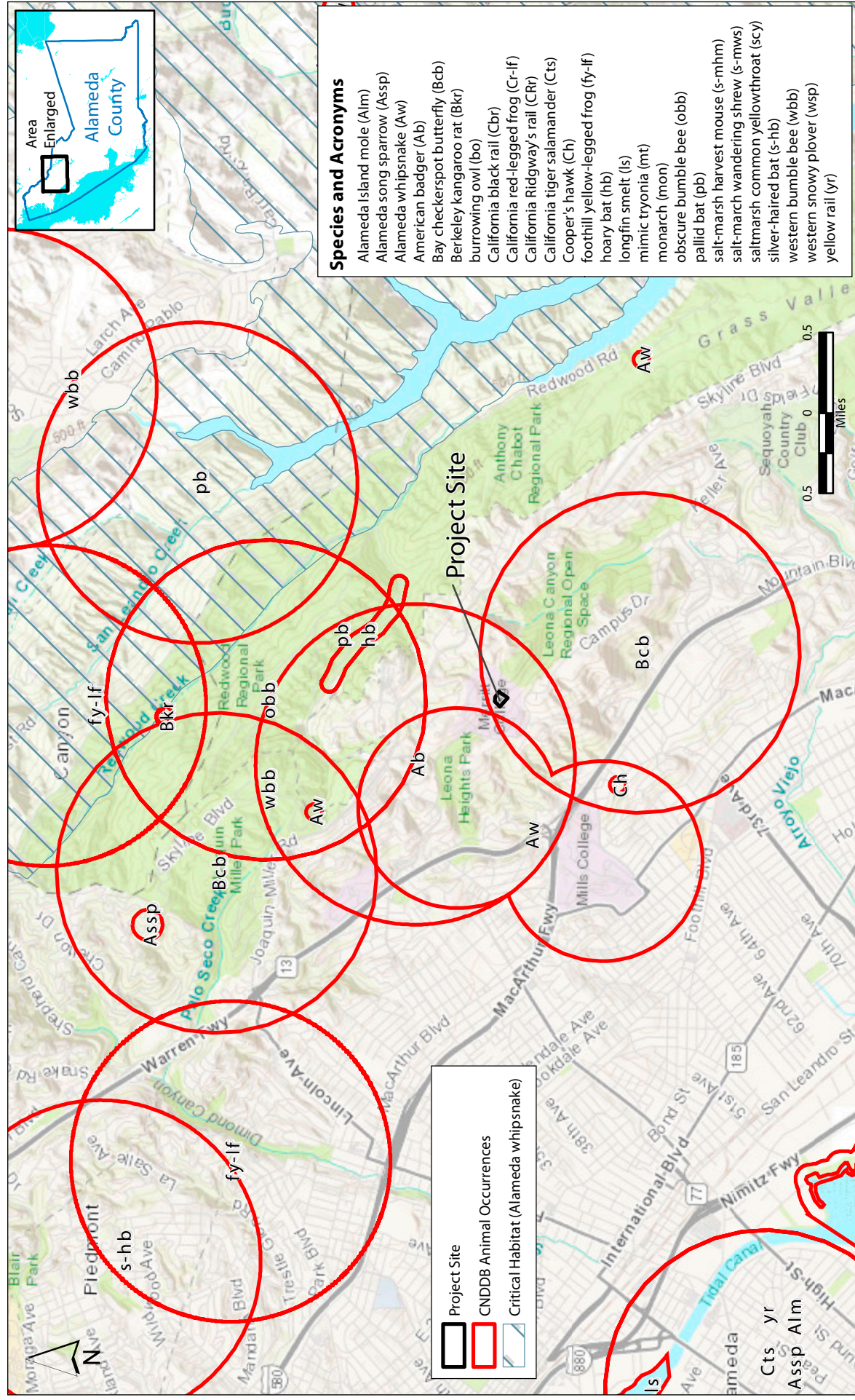


Figure 8

SOURCE: California Natural Diversity Database accessed on August 15, 2019; USGS base map by ESRI and NGS. Map produced by www.digitalmappingsolutions.com on 8/15/2019.

AMY SKEWES-COX
ENVIRONMENTAL PLANNING

whipsnake occurs about 1.5 miles east of the site and no designated critical habitat for California red-legged frog occurs in the Oakland vicinity. The extent of surrounding development precludes the potential for dispersal by either of these species onto the site in the future.

Nests of most bird species are protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code when the nests are in active use. No nesting or roosting locations have been identified by the CNDDDB on the project site or in the immediate vicinity, or were observed during the field surveys. However, trees on and in the vicinity of the site contain suitable nesting substrate for some bird species recognized as Species of Special Concern (SSC) by the CDFW, as well as more common species, and new nests could be established in the future. Species with potential to nest include white-tailed kite, red-shouldered hawk, red-tailed hawk, Cooper's hawk, shrub jay, mourning dove, brown towhee, bush tit, among many others. Tree removal and other construction activities during the breeding season could result in the incidental loss of fertile eggs or nestlings or nest abandonment. This would be considered a potentially significant impact.

A standard method to address the potential for nesting birds is either to initiate construction during the non-nesting season, which in Alameda County is typically from September 1 to January 31, or to conduct a nesting survey within 14 days prior to initial tree removal and construction to determine whether any active nests are present that must be protected until any young have fledged and are no longer dependent on the nest. Protection of the nests, if present, would require that construction setbacks be provided during the nesting and fledging period, with the setback depending on the type of bird species, degree to which the individuals have already acclimated to other ongoing disturbance, and other factors. Without these controls, tree removal and construction activities could have a potentially significant impact on nesting birds. Construction is expected to commence in January 2021, which is during the non-nesting season when active bird nests would be absent. The following mitigation measure would ensure an abundance of caution if the construction schedule changes and would serve to fully mitigate the potentially significant impact of the project on nesting birds protected under state and federal law.

Impact BIOLOGY-1: Removal of trees and other activities during project construction may result in the inadvertent loss of bird nests in active use unless appropriate precautions are followed.
(PS)

Mitigation Measure BIOLOGY-1: Adequate measures shall be taken to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in the nests are active use. This shall be accomplished by taking the following steps:

- *If construction is proposed during the nesting season (February through August), a focused survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 14 days prior to the onset of tree removal or construction, in order to identify any active nests on the project site and in the vicinity of proposed construction.*
- *If no active nests are identified during the survey period, or if development is initiated during the non-breeding season (September through February), construction may proceed with no restrictions.*

- *If bird nests are found, an adequate setback shall be established around the nest location and construction activities restricted within this no-disturbance zone until the qualified biologist has confirmed that any young birds have fledged and are able to function outside the nest location. Required setback distances for the no-disturbance zone shall be based on input received from the California Department of Fish and Wildlife (CDFW), and may vary depending on species and sensitivity to disturbance. As necessary, the no-disturbance zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the construction area.*
- *A report of findings shall be prepared by the qualified biologist and submitted to the Peralta Community College District (PCCD) for review and approval prior to initiation of construction within the no-disturbance zone during the nesting season (February through August). The report either shall confirm absence of any active nests or shall confirm that any young within a designated no-disturbance zone have fledged and construction can proceed.*

Implementation of Mitigation Measure BIOLOGY-1 would reduce potentially significant impacts on nesting birds to a less-than-significant level. (LTS)

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

No Impact

Sensitive natural communities are community types recognized by the CDFW and other agencies because of their rarity. In the Oakland vicinity, sensitive natural community types include coastal salt marsh, brackish water, freshwater marshlands, and native grasslands, among other community types. While the non-native grassland cover on the site includes scattered clumps of native grasses and forbs, such as purple needle grass, these do not occur in high enough densities or aerial extent to be considered a native grassland sensitive natural community type. Sensitive natural community types are absent from the site and vicinity of proposed construction, and no adverse impacts are anticipated. No significant impacts are anticipated and no mitigation is required.

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

No Impact

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions.

The CDFW, U.S. Army Corps of Engineers (Corps), and California Regional Water Quality Control Board (RWQCB) have jurisdiction over modifications to wetlands and other "waters of the United States." Jurisdiction of the Corps is established through provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material without a permit. The RWQCB jurisdiction is established through Section 401 of the Clean Water Act, which requires certification or waiver to control discharges in water quality, and the State Porter-Cologne Act. Jurisdictional authority of the CDFW over wetland areas is established under Sections 1600-1607 of the California Fish and Game Code, which pertain to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream.

A preliminary wetland assessment was conducted during the field reconnaissance survey on May 2, 2019. No indications of any jurisdictional waters, including creeks or other drainages, were observed on the site. A small depression occurs on the graded building pad that once contained a structure on the site, but this is not a naturally occurring feature and has formed on excavated lands in what historically was an upland hillside. Standard Best Management Practices (BMPs) would be used to prevent any sedimentation or erosion, preventing any potential for water quality degradation in downgradient waters, as discussed further in Section X, Hydrology and Water Quality, of this Initial Study. No direct or indirect impacts on the jurisdictional waters are anticipated, and no mitigation is required.

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

Less Than Significant Impact

The proposed project would not have any significant adverse impacts on wildlife movement opportunities or adversely affect native wildlife nursery sites. Following construction of the new building and landscape improvements, the perimeter of the project site would remain open to movement opportunities by terrestrial wildlife and dispersing birds. Grading and construction would temporarily disrupt wildlife use of the immediate vicinity, but this would be a relatively short-term effect on common wildlife species. Wildlife could continue to use the surrounding undeveloped hillside for foraging and other activities and could continue to move through the area, even after completion of the new building and landscape improvements. The conversion of approximately 10,000 square feet of non-native grassland and scrub to the new building would not represent a substantial loss of the non-native grassland and scrub habitat that is abundant in the surrounding area. Pre-construction surveys included in Mitigation Measure BIOLOGY-1 would ensure avoidance of any nesting birds if new nests become established before construction is initiated. No substantial disruption of movement corridors or access to native wildlife nursery sites is anticipated. Potential impacts on wildlife movement opportunities would be less than significant and no mitigation is required.

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

Less Than Significant Impact

The City of Oakland General Plan and provisions in the Oakland Municipal Code provide for the protection of important biological and wetland resources. In addition, the City has established Standard Conditions of Approval that are typically adopted as part of the approval of development applications where sensitive biological resources could be adversely affected. Information on these local policies, regulations, and Standard Conditions of Approval is reviewed below.

It should be noted that the PCCD plans to exempt itself and its projects from local zoning ordinances and general plan provisions, including applicable provisions of the Oakland General Plan and Oakland Municipal Code. Where the PCCD opts to exempt itself, the PCCD strives to conform with applicable local regulations.

Oakland General Plan

The Open Space, Conservation, and Recreation (OSCAR) Element of the Oakland General Plan includes objectives, policies and actions related to the protection of plant and animal resources. These address protecting native plant communities, encouraging native plant restoration, discouraging the removal of large native trees, protecting habitat for special-status species, and protecting wildlife movement corridors.

Other than trees of protected size regulated under the City's Tree Protection Ordinance (addressed below), no sensitive biological resources occur on the site. No impacts on creeks, special-status species, or sensitive natural communities are anticipated as a result of the project. Appropriate measures would be taken to minimize damage or loss of trees, as discussed further below. BMPs would be followed to prevent sediment and other construction-generated pollutants from reaching downstream waters, as described under Item (a) in Section X, Hydrology and Water Quality, of this Initial Study. These BMPs include protecting storm drain inlets, establishing and maintaining construction exits, and creating perimeter controls, among other practices. Pre-construction surveys for possible nesting birds would be conducted as specified in Mitigation Measure BIOLOGY-1, which would ensure avoidance of any nesting birds if new nests become established before construction is initiated. No substantial conflicts with the Oakland General Plan are anticipated as a result of the project, since the site does not contain sensitive resources subject to protection under the OSCAR Element (i.e., creeks, special-status species, or sensitive natural communities) and controls have been incorporated into the project to minimize damage to trees and loss of bird nests when in active use.

Tree Protection Ordinance

Title 12, Chapter 12.36 of the Oakland Municipal Code identifies protected trees that require a permit for removal. According to the ordinance, a tree removal permit must be obtained to remove a "protected tree." A protected tree consists of any coast live oak measuring 4 inches in diameter at breast height (DBH) or any other tree species measuring 9 inches DBH or larger, except non-native

eucalyptus and Monterey pine (*Pinus radiata*). Monterey pine trees must be protected only on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed. Except as noted in the ordinance, eucalyptus and Monterey pine are not protected by the ordinance. Replacement tree plantings are typically required where native tree species are removed. Native protected trees proposed for removal must be replaced at a ratio of 1:1 if the replacement tree is a 24-inch box size and 3:1 if the replacement trees are 15-gallon size trees. Protected trees located within 30 feet of construction must be identified. Adequate protection must also be provided during the construction period for any trees that are to remain in the vicinity of proposed development.

The arborist report (Bay Area Plant Consultants, 2019) provides an inventory of trees in the vicinity of the project site, conclusions regarding removal or risk of damage, and recommendations to protect trees to be retained. As indicated in the arborist report, only two planted trees on the northern edge of the site and five dead or dying Monterey pines along Margie Lane to the south of the limits of construction would be removed by the project. The two live trees to be removed to accommodate the new CCDC building are a stunted 22.2-inch DBH coast redwood and a 16.9-inch DBH Monterey pine. The dead or dying Monterey pines, which are to be removed because of their poor condition and hazard they pose from limb drop and toppling, range in size from 20.2 to 33 inches DBH.

Detailed landscape plans have not yet been prepared for the project but would include new plantings of trees, shrubs, and groundcover species. Appropriate controls would be implemented to ensure that trees on the project site in the vicinity of construction, including those described in the arborist report, are adequately protected. As called for in the arborist report, these controls would include installation of temporary fencing around trees to be retained, inspection of the fencing by the project arborist, avoidance of modifications to soil levels around trees to be retained, and removal of dead wood from trees to be retained, among other treatments. The new landscaping provided as part of the project would serve to replace the two live trees and other landscaping removed to accommodate the new structure and associated improvements. These replacement tree plantings would serve to ensure that there are no major conflicts with the OSCAR Element or Oakland Municipal Code provisions.

As noted above, the PCCD plans to exempt itself and its projects from local zoning ordinances and general plan regulations, including applicable provisions of the Oakland Municipal Code pertaining to tree protection. Where the PCCD opts to exempt itself, the PCCD strives to conform with applicable local regulations. Therefore, the project would be considered to have a less-than-significant impact, and no mitigation measures are necessary.

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

No Impact

There are currently no adopted Habitat Conservation Plans or Natural Community Conservation Plans for the project site or surrounding areas. No adopted Habitat Conservation Plan, Natural Community

Conservation Plan, or other conservation plan applies to the project site, no impacts regarding possible conflicts with an adopted plan are anticipated, and no mitigation would be required.

REFERENCES

Bay Area Plant Consultants, 2019. *Revised Arborist Report on the Second Merritt College Childcare Center Site*, prepared for Atheria Smith, Director of Facilities Planning and Development, Peralta Community College District, by Judy Thomas, September 3.

California Natural Diversity Database (CNDDB). USGS base map by ESRI and NGS. Map produced by www.digitalmappingsolutions.com, accessed on August 15, 2019.

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

IMPACT EVALUATION

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

Less Than Significant with Mitigation Incorporated

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the California Register of Historical Resources), it generally must be 50 years or older. Under CEQA, historical resources can include pre-contact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts.

To identify historical resources at the project site, the following tasks were completed for this Initial Study: 1) a records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System;⁹ 2) geologic and historical maps and information were reviewed to assess the potential for buried pre-contact Native American and historic-period archaeological deposits; and 3) a qualified archaeologist surveyed the project site to identify surface

⁹ The NWIC is an affiliate of the State of California Office of Historic Preservation (OHP) and is the official state repository of cultural resources records and reports for Alameda County.

evidence of archaeological deposits. The results of these tasks are described below. A records search of the Native American Heritage Commission's (NAHC) Sacred Lands File was also conducted; the results are described in Section XVIII, Tribal Cultural Resources, of this Initial Study.

Records Search

The NWIC records search was conducted on April 11, 2019, by E. Timothy Jones, Registered Professional Archaeologist 15531 with LSA. The records search included the project site and a 0.25-mile search radius.

The NWIC database indicates that there are no recorded cultural resources at the project site or within the 0.25-mile search radius.

A previous archaeological study was done for a proposed 700-acre residential development that included the project site (Archaeological Consulting and Research Services, Inc., n.d.). The archaeological pedestrian survey completed for that study identified no archaeological sites.

Map Review

The surface geology of the project site and vicinity consists of rocks formed during the Late Jurassic and Early Cretaceous, long before human occupation of North America (Graymer, 2000; Radbruch, 1969). Buried pre-contact archaeological deposits are not anticipated at the project site due to the age of the surface geology and absence of a depositional environment that could have buried former living surfaces. Pre-contact archaeological materials—should these occur at the project site—would be expected to occur at or near the present-day ground surface.

The historical maps reviewed do not indicate a potential for historic-period archaeological deposits or features. Sanborn Fire Insurance maps do not provide coverage of the project site or vicinity, indicating that physical development was too sparse to warrant inspection by the insurance industry in the late 19th and early 20th centuries (Sanborn Map Company 1889, 1902, 1928). Historical topographic maps published between 1897 and 1973 indicate no buildings or structures at or near the project site prior to construction of Merritt Community College in the 1970s (USGS 1897, 1915, 1947, 1959, 1973).

Field Survey

A Registered Professional Archaeologist surveyed the project site on September 19, 2019. Evidence of previous ground disturbance was observed, including areas of grading, cutting and filling, and soil piles. A concrete pad was noted during the survey, and two concrete footings were seen approximately 15 feet west of the pad. The ground disturbance and concrete features at the project site are associated with college buildings that were at this location during the 1970s and 1980s. The concrete features observed during the survey are too recent and lack potentially significant historical associations that would qualify them for listing in the California Register of Historical Resources. As a result, these features are neither historical nor unique archaeological resources for purposes of CEQA.

Summary

The NWIC records search and field survey did not identify historical resources at the project site. The map review indicates a low potential for buried pre-contact and historic-period archaeological historical resources. Although the potential for identifying archaeological historical resources during project ground disturbance is low, the presence of such resources cannot be entirely discounted. Should such deposits be encountered during project ground disturbance, a substantial adverse change in the significance of a historical resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)) (see Impact CULTURAL-1 and Mitigation Measures CULTURAL-1 below).

Impact CULTURAL-1: The project could unearth archaeological deposits, thereby causing a substantial adverse change in the significance of a historical resource as defined in California Environmental Quality Act (CEQA) Guidelines Section 15064.5. (PS)

Mitigation Measure CULTURAL-1: Should an archaeological deposit be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology contacted to assess the situation, determine if the deposit qualifies as a historical resource, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If the deposit is found to be significant (i.e., eligible for listing in the California Register of Historical Resources), the Peralta Community College District (PCCD) shall be responsible for funding and implementing appropriate mitigation measures. Mitigation measures may include recording of the archaeological deposit, data recovery and analysis, and public outreach regarding the scientific and cultural importance of the discovery. Upon completion of the selected mitigations, a report documenting methods, findings, and recommendations shall be prepared and submitted to the PCCD for review, and the final report shall be submitted to the Northwest Information Center at Sonoma State University. Significant archaeological materials shall be submitted to an appropriate local curation facility and used for future research and public interpretive displays, as appropriate.

The PCCD shall inform its contractor(s) of the sensitivity of the project area for archaeological deposits and shall verify that the following directive has been included in the appropriate contract documents:

"The subsurface of the construction site may be sensitive for Native American archaeological deposits and associated human remains. If archaeological deposits are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall stop and a qualified archaeologist contacted to assess the situation and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any archaeological materials. Archaeological deposits can include shellfish remains; bones; flakes of, and tools made from, obsidian, chert, and basalt; and mortars and pestles. Contractor acknowledges and understands that excavation or removal of archaeological material is prohibited by law

and constitutes a misdemeanor under California Public Resources Code, Section 5097.5 and breach of contract.”

With implementation of the above mitigation measure, the potential impact on historical and archaeological resources would be reduced to a less-than-significant level. (LTS)

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

Less Than Significant with Mitigation Incorporated

According to the CEQA Guidelines, “When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource” (CEQA Guidelines Section 15064.5 (c)(1)). Those archaeological sites that do not qualify as historical resources should be assessed to determine if these qualify as “unique archaeological resources” (California Public Resources Code Section 21083.2). Archaeological deposits identified during project construction should be treated by the PCCD—in consultation with a qualified archaeologist meeting the *Secretary of the Interior’s Professional Qualifications Standards for Archeology*—in accordance with Mitigation Measure CULTURAL-1.

Impact CULTURAL-2: The project could unearth archaeological deposits, thereby causing a substantial adverse change in the significance of an archaeological resource as defined in California Environmental Quality Act (CEQA) Guidelines Section 15064.5. (PS)

Mitigation Measure CULTURAL-2: Mitigation Measure CULTURAL-1 shall be implemented. (LTS)

- c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

No Impact

There are no known historic-period human burials at the project site. Background research and a cultural resources field survey conducted for this Initial Study (see discussion under Item (a) above) did not identify recorded Native American skeletal or cremated remains at the project site. A review of the NAHC’s Sacred Lands File did not indicate that tribal cultural resources are at the project site. (See discussion in Section XVIII, Tribal Cultural Resources, of this Initial Study.)

In the event that human remains are identified during project construction, these remains would be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, as appropriate.

Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined

whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Section 5097.98 of the Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the MLD) it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

With these regulations in place, no impact on human remains is anticipated, and no mitigation is necessary.

REFERENCES

- Archaeological Consulting and Research Services, Inc., n.d. *Report of the Archaeological Reconnaissance of the Proposed Mountain Village Developments, Alameda County, California*. Archaeological Consulting and Research Services, Inc., Mill Valley, California (no date provided).
- Graymer, R.W., 2000. *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*. U.S. Geological Survey, Washington, D.C.
- Jones, E. Timothy, 2019. Archaeological survey of project site, September 19, 2019.
- Northwest Information Center (NWIC), 2019. Review of database materials on file, accessed on April 11, 2019.
- Radbruch, Dorothy H., 1969. *Areal and Engineering Geology of the Oakland East Quadrangle, California*. U.S. Geological Survey, Washington, D.C.
- Sanborn Map Company, 1889. *Oakland, California Sanborn Map*. Sanborn Map Company, New York City.
- Sanborn Map Company, 1902. *Insurance Maps of Oakland, California*. Sanborn Map Company, New York City.
- Sanborn Map Company, 1928. *Insurance Maps of Oakland, California*. Sanborn Map Company, New York City.

U.S. Geological Survey (USGS), 1897. *Concord*. 15-minute topographic quadrangle. USGS, Washington, D.C.

U.S. Geological Survey (USGS), 1915. *Concord*. 15-minute topographic quadrangle. USGS, Washington, D.C.

U.S. Geological Survey (USGS), 1947. *Oakland East, Calif.* 7.5-minute topographic quadrangle. USGS, Washington, D.C.

U.S. Geological Survey (USGS), 1959. *Oakland East, Calif.* 7.5-minute topographic quadrangle. USGS, Washington, D.C.

U.S. Geological Survey (USGS), 1959. *Oakland East, Calif.* 7.5-minutes topographic quadrangle. Photo revised 1973. USGS, Washington, D.C.

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

IMPACT EVALUATION

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

Less Than Significant Impact

The project would not increase the student, faculty, or staff population on the campus, and therefore project operations would not substantially increase overall per capita energy consumption. The project building would likely use less energy than the existing on-campus facilities occupied by the proposed land uses, since new buildings typically use less energy than older ones. The project would not generate new traffic, since the proposed land uses already exist on the campus.

The most current version of the California Emissions Estimator Model (CalEEMod) was used to evaluate energy consumed by the proposed project building. (See additional discussion of CalEEMod in Section VIII, Greenhouse Gas Emissions, of this Initial Study.) CalEEMod uses a combination of statewide and regional surveys to conservatively estimate annual electricity and natural gas consumption for a wide variety of land use types. Based on CalEEMod, the project building is expected

to use approximately 91 kilowatt hours (kWh) of electricity and 329 kilo-British thermal units (kBtu) of natural gas per year. This demand would not be entirely new, since the project would not increase the overall campus population.

As noted in Chapter I, Project Description, of this Initial Study, the PCCD is committed to meeting certain criteria established by the Leadership in Energy and Environmental Design (LEED) certification program, including criteria for energy savings. Possible energy-saving features of the project include exceedance of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) energy standards as required to obtain LEED points, and use of the campus solar grid (Davis, 2019).

Some minor amounts of energy (gasoline for equipment, etc.) would be used during construction, but this consumption would be temporary and would not be a substantial increase. Construction contractors typically have financial incentives to minimize energy use.

For these reasons, project construction and operations would not result in wasteful, inefficient, or unnecessary consumption of energy, and the impact would be less than significant.

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

Less Than Significant Impact

The project would not obstruct any state or local plan for improved energy efficiency or the use of renewable energy. Ultimately, during project operations, energy savings may result from the greater energy efficiency of the project building, compared to the existing facilities occupied by the proposed land uses. The project would abide by all State of California mandates for energy conservation, and final designs would be subject to approval by the Division of the State Architect, which reviews community college project designs to determine compliance with the California Building Code. The project would contain energy-saving features as described under Item (a) above. For these reasons, the impact would be less than significant.

REFERENCES

Davis, Douglas, AIA, MBA, LEED AP, Principal, AES Partners, 2019. E-mail re. "Full List of Merritt CEQA Questions," August 22.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

INTRODUCTION

The project site is located within the central portion of the Coast Ranges geomorphic province, which includes numerous active faults identified by the California Geological Survey (CGS) under the Alquist-Priolo Earthquake Fault Zoning Act. CGS defines an active fault as one that has ruptured during the Holocene Epoch (i.e., the last 11,000 years). The probability of one or more large earthquakes (magnitude 6.7 or greater) occurring in the Bay Area between 2014 and 2044 is about 72 percent (Field, E.H. and the 2014 Working Group on California Earthquake Probabilities, 2015). The probabilities of a large earthquake occurring along an active fault segment near the project site are summarized in **Table 8**. Potential impacts associated with seismic activity at the project site, including fault rupture, ground shaking, ground failure, liquefaction, and landslides, are discussed below.

TABLE 8 ACTIVE EARTHQUAKE FAULTS NEAR PROJECT SITE

Fault Name	Location Relative to Project Site	Probability of Large Earthquake Between 2014 and 2044
Hayward Fault	0.75 miles southwest	14.3%
Calaveras Fault	9 miles east	7.4%
San Andreas Fault	19 miles southwest	6.4%

Notes: The probability of a large earthquake (magnitude 6.7 or greater) was estimated between 2014 and 2044.
Source: Field, E.H. and the 2014 Working Group on California Earthquake Probabilities, 2015.

CGS has mapped Seismic Hazard Zones that delineate areas susceptible to liquefaction and/or landslides that require additional investigation to determine the extent and magnitude of potential ground failure. According to CGS mapping, the project site is not located within a Seismic Hazard Zone for liquefaction or landslides (CGS, 2003).

Geohazard reports for new buildings at California schools, including community colleges, must be submitted to CGS for review and acceptance, and, subsequently, to the California Division of State Architect (DSA) for review (DSA, 2016). Construction plans for new buildings at community colleges must also be submitted to DSA for review. DSA ensures that construction plans are, at a minimum, in compliance with the current California Building Code (Title 24, California Code of Regulations), which provides for stringent construction requirements on projects in areas of high seismic risk. The project design and construction are required to conform with, or exceed, current best standards for earthquake-resistant construction in accordance with the California Building Code and with the generally accepted standards of geotechnical practice for seismic design in Northern California. The California Building Code also requires that a site-specific geotechnical investigation report be prepared by a licensed professional for proposed developments of one or more buildings greater than 4,000 square feet, such as the proposed project, to evaluate geologic and seismic hazards. The purpose of a site-specific geotechnical investigation is to identify seismic and geologic conditions that require mitigation, such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. Requirements for the geotechnical investigation are presented in Chapter 16 "Structural Design" and Chapter 18 "Soils and Foundation" of the California Building Code.

The Field Act, contained in Education Code Sections 17280-17317 and 81130-81149, adds additional seismic safety requirements for California schools, including community colleges. The Field Act includes requirements for seismic design standards, plan review, construction inspections, and testing, which is overseen by DSA through plan review, permitting, and inspection of schools under construction.

A Geotechnical Design and Geological Hazard Evaluation Report (Geotechnical Report) (Terraphase Engineering, 2019) has been prepared for the proposed project. Information presented in the Geotechnical Report is discussed below.

IMPACT EVALUATION

- a) *Would the project 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?*

Less Than Significant Impact

Fault Rupture

Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. Surface rupture generally occurs along an existing (usually active) fault trace. Areas susceptible to surface fault rupture are delineated by the CGS Alquist-Priolo Earthquake Fault Zones and require specific geological investigations prior to development to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-induced ground failure.

The project site is not located within or adjacent to a mapped Alquist-Priolo Earthquake Fault Zone (CGS, 2003). The Alquist-Priolo Earthquake Fault Zone for the Hayward Fault is located approximately 3,000 feet southwest of the project site. Therefore, the project would have a less-than-significant impact related to fault rupture.

Strong Seismic Ground Shaking

Seismic ground shaking generally refers to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The magnitude of a seismic event is a measure of the energy released by an earthquake; it is assessed by seismographs that measure the amplitude of seismic waves. The intensity of an earthquake is a subjective measure of the perceptible effects of a seismic event at a given point. The Modified Mercalli Intensity scale is the most commonly used scale to measure the subjective effects of earthquake intensity. It uses values ranging from I to XII.

The Association of Bay Area Governments (ABAG) and the United States Geological Survey (USGS) have mapped the likely shaking intensities in the Bay Area that would have a 10 percent chance of occurring in any 50-year period (ABAG and USGS, 2019). Based on the ABAG and USGS mapping, the project site is in an area susceptible to very strong ground shaking (VIII on the Modified Mercalli Intensity scale), which would be expected to result in negligible damage to well-designed and constructed buildings.

The Geotechnical Report included a site-specific earthquake ground motion study, which found that the expected peak ground acceleration for the maximum credible earthquake at the project site is 1.01g, where g is the acceleration of gravity at the earth's surface. The Geotechnical Report included seismic

design parameters and recommendations for foundation design to account for the maximum credible earthquake (Terraphase Engineering, 2019).

The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in the California Building Code, DSA review and approval of plans, specifications and construction in accordance with the requirements of the Field Act, and site-specific recommendations from a geotechnical investigation report approved by CGS and DSA. With adherence to these existing regulations and practices, the potential for the project to result in impacts related to ground shaking would be less than significant.

Liquefaction

Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire a “mobility” sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy.

As discussed above, the project site is not located within a Seismic Hazard Zone for liquefaction (CGS, 2003). The Geotechnical Report indicates that the project site is underlain by bedrock, which is not subject to liquefaction (Terraphase Engineering, 2019); therefore, the potential for impacts related to liquefaction would be less than significant.

Lateral Spreading

Lateral spreading is a phenomenon in which surficial soil displaces along a gently sloping ground surface as the result of liquefaction in a subsurface layer. Upon reaching mobilization, the surficial soils are transported downslope or in the direction of a free face by earthquake and gravitational forces.

As discussed above, the project site is underlain by bedrock, which is not subject to liquefaction (Terraphase Engineering, 2019); therefore, potential impacts associated with lateral spreading would be less than significant.

Seismically Induced Settlement

Seismically induced settlement can occur when non-saturated, cohesionless soil is densified by earthquake vibrations. The project site is underlain by bedrock, which is not subject to seismically induced settlement. Up to 4 feet of fill would be placed on the project site under the proposed project. The Geotechnical Report indicates that, because this fill would be compacted, settlement of the fill under the proposed two-story structure should be negligible. The Geotechnical Report recommends that the proposed structure be designed to accommodate up to ¼ inch of differential settlement over 25 feet (Terraphase Engineering, 2019). Compliance with the existing regulations discussed above, including implementation of site-specific recommendations of the Geotechnical Report as required by the Field Act, would ensure that the potential impacts associated with seismically induced settlement would be less than significant.

Landslides

Seismically induced landslides occur as the rapid movement of large masses of soil on unstable slopes during an earthquake. The Seismic Hazard Zones mapped by CGS delineate areas susceptible to seismically induced landslides that require additional investigation to determine the extent and magnitude of potential ground failure.

According to CGS (2003), the project site is not located within a Seismic Hazard Zone for seismically induced landslides; however, there are steep slopes located in the northern and eastern portions of the project site. The Geotechnical Report indicates that the bedrock slope behind the proposed structure has a slope of 3 horizontal to 1 vertical and does not pose a landslide hazard (Terraphase Engineering, 2019). Therefore, the project would have a less-than-significant impact related to seismically induced landslides.

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

Less Than Significant Impact

Soil erosion, which is discussed in detail in Section X, Hydrology and Water Quality, of this Initial Study, could occur during project grading and construction. As described in Section X, compliance with the Construction General Permit, including the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), would reduce the potential impacts related to erosion of topsoil to a less-than-significant level.

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

Less Than Significant Impact

As discussed under Item (a) above, the project site is not susceptible to liquefaction, lateral spreading, seismically induced settlement, or landslides. Placement and compaction of engineered fill in accordance with the recommendations of the Geotechnical Report (Terraphase Engineering, 2019), as required by the Field Act, would ensure that potential impacts related to unstable soils would be less than significant.

Subsidence

Subsidence or collapse can result from the removal of subsurface water, resulting in either catastrophic or gradual depression of the surface elevation of the project site. The only removal of subsurface water that may occur as part of the project is dewatering of shallow excavations that could be required during construction. The dewatering of shallow excavations does not cause significant ground subsidence or collapse, particularly in bedrock. Therefore, this potential impact is less than significant.

Consolidation

Consolidation of soils is a process by which the soil volume decreases as water is expelled from saturated soils under static loads. As the water moves out from the pore space of the soil, the solid particles realign into a denser configuration that results in settlement. Consolidation typically occurs as a result of new buildings or fill materials being placed over compressible soils.

The project site is underlain by bedrock. The placement and compaction of engineered fill in accordance with the recommendations of the Geotechnical Report (Terraphase Engineering, 2019), as required by the Field Act, would ensure that potential impacts associated with consolidation of new fill would be less than significant.

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

Less Than Significant Impact

The proposed structure would be founded on imported engineered fill. The Geotechnical Report contains requirements for the geotechnical properties of imported fill, including requirements that expansive soils not be imported to the project site (Terraphase Engineering, 2019). Implementation of the recommendations of the Geotechnical Report, as required by the Field Act, would ensure that potential impacts related to expansive soil would be less than significant.

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

No Impact

The project would be served by a wastewater collection and conveyance system maintained by the City of Oakland. Wastewater from the City's collection system is conveyed to the East Bay Municipal Utility District (EBMUD) wastewater interceptor system and is treated at EBMUD's wastewater treatment plant. Development of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the proposed project would have no impact related to septic tanks or alternative wastewater disposal systems.

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

Less Than Significant Impact

Paleontological resources include fossilized remains or traces of organisms including plants, vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and microscopic plants and animals (microfossils), including their imprints, from a previous geological period. Collecting localities and the geologic formations containing those localities are also considered paleontological resources as they represent a limited, non-renewable resource and, once

destroyed, cannot be replaced. The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on non-renewable paleontological resources (SVP, 2010). The SVP has helped define the value of paleontological resources and, in particular, states that significant paleontological resources are fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small; uncommon invertebrate, plant, and trace fossils; and other data that provide taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 years) (SVP, 2010).

Based on regional mapping, the native geologic formation on the project site consists of Great Valley complex volcanic rock of the Jurassic period (Graymer et al., 2006, and USGS, 2019). The Geotechnical Report indicates that the bedrock at the project site is Leona Rhyolite (a volcanic rock) underlain at some depth by Knoxville Formation shales and sandstones (Terraphase Engineering, 2019). The results of a search of paleontological localities in the fossil collections database maintained by the University of California Museum of Paleontology identified no vertebrate, plant, or micro fossil localities and 20 invertebrate fossil localities in Jurassic period geologic formations within Alameda County (University of California Museum of Paleontology, 2019). Sixteen of these invertebrate fossil localities were indicated to be within the Knoxville Formation, while four of the locality records did not include a specific formation. The project would not involve deep excavations, and therefore would not be expected to encounter the Knoxville Formation. Because Leona Rhyolite is a volcanic rock, it would not be expected to contain fossils as the heat released during formation of the volcanic rock would have destroyed potential fossils. Therefore, the Leona Rhyolite bedrock formation that would be disturbed by grading and excavation on the project site is considered to have low paleontological sensitivity, and the proposed project would result in less-than-significant impacts on paleontological resources.

REFERENCES

- Association of Bay Area Governments (ABAG) and United States Geological Survey (USGS), 2019. *Sub-Regional Earthquake Hazards and Earthquake Mapping Update*. Shaking Hazard Map.
- California Geological Survey (CGS), 2003. *Earthquake Zones of Required Investigation; Oakland East Quadrangle*, February 14.
- Division of State Architect (DSA), 2016. *IR A-4.13 Geohazard Report Requirements: 2013 & 2016 CBC*, revised October 7.
- Field, E.H. and 2014 Working Group on California Earthquake Probabilities, 2015. *UCERF3: A New Earthquake Forecast for California's Complex Fault System*. U.S. Geological Survey 2015–3009.
- Graymer et al., 2006. Geologic Map of the San Francisco Bay Region.

Society of Vertebrate Paleontology (SVP), 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.

Terraphase Engineering, 2019. Geotechnical Design and Geological Hazard Evaluation Report, Child Development Center, Merritt College, 12500 Campus Drive, Oakland, California, October 4.

University of California Museum of Paleontology, 2019. Collections Database, Locality Search. Available at: <https://ucmpdb.berkeley.edu/loc.html>, accessed on August 9, 2019.

U.S. Geological Survey (USGS), 2019. Bay Area Geologic Map for Google Earth, Available at: <https://earthquake.usgs.gov/learn/topics/geologicmaps/geology.php>, accessed on August 9, 2019.

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

INTRODUCTION

Climate change refers to change in the Earth's weather patterns, including the rise in temperature due to an increase in heat-trapping greenhouse gases (GHGs) in the atmosphere. An increase of GHGs in the atmosphere affects the energy balance of the Earth and results in a global warming trend. Increases in global average temperatures have been observed since the mid-20th century and have been linked to observed increases in GHG emissions from anthropogenic sources. The primary GHG emissions of concern are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Other GHGs of concern include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆), but their contribution to climate change is less than 1 percent of the total GHGs that are well-mixed (i.e., that have atmospheric lifetimes long enough to be homogeneously mixed in the troposphere) (Intergovernmental Panel on Climate Change [IPCC], 2013). Each GHG has a different global warming potential (GWP). For instance, CH₄ traps about 21 times more heat per molecule than CO₂. As a result, emissions of GHGs are reported in metric tons of carbon dioxide equivalents (CO₂e), wherein each GHG is weighted by its GWP relative to CO₂.

According to the IPCC, the atmospheric concentrations of CO₂, CH₄, and N₂O have increased to levels unprecedented in at least the last 800,000 years due to anthropogenic sources (IPCC, 2013). Some of

the potential effects of increased GHG emissions and the associated climate change may include loss in snow pack (affecting water supply), sea level rise, more frequent extreme weather events, more large forest fires, and more drought years. In addition, climate change may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health (Bay Area Air Quality Management District [BAAQMD], 2017a).

In October 2018, the IPCC published a special report on potential long-term climate change impacts based on the projected increases in temperature due to global climate change. The IPCC report found that, due to a 1 degree Celsius (°C) increase over pre-industrial temperatures, the Earth is already seeing the consequences of global warming, such as extreme weather, rising sea levels, and diminishing Arctic sea ice. Temperatures are likely to reach 1.5°C above pre-industrial levels between 2030 and 2052 if global warming continues at the current rate. Some impacts of ongoing global warming could be avoided by limiting future global warming to 1.5°C compared to 2°C. For example, by limiting global warming to 1.5°C or less, the likelihood of an Arctic Ocean free of sea ice in summer would be ten times lower compared to the likelihood under the scenario of a 2°C increase. Beyond the 1.5°C threshold, there would be significant increases in the risk associated with long-lasting or irreversible changes, such as the loss of ecosystems. The IPCC states that in order to limit global warming to 1.5°C, rapid transitions are needed in land, energy, industry, building, transport, and urban sectors to reach the goal of carbon neutrality by 2050, which means that the Earth's production of GHG emissions each year would be removed completely through carbon offsetting, sequestration, or other means (IPCC, 2018).

In 2006, the California State Legislature passed the California Global Warming Solutions Act (Assembly Bill [AB] 32), which requires the California Air Resources Board (CARB) to develop and implement regulatory and market mechanisms that will reduce GHG emissions to 1990 levels by 2020. In 2016, the State Legislature adopted Senate Bill (SB) 32, which requires further reduction of GHG emissions to 40 percent below the 1990 level by 2030. In addition, Executive Order S-3-05 set a GHG reduction goal of 80 percent below 1990 levels by 2050.

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the BAAQMD. The BAAQMD has adopted and incorporated GHG thresholds of significance into its CEQA Air Quality Guidelines (BAAQMD, 2017b) to assist lead agencies in evaluating and mitigating air quality impacts under CEQA. The BAAQMD's GHG thresholds were developed to evaluate whether land-use sector projects would comply with the statewide 2020 GHG reduction goal under AB 32 to reduce GHG emissions to 1990 levels. While the BAAQMD is in the process of updating its CEQA Guidelines to include revised significance thresholds to evaluate long-term GHG reduction goals beyond 2020, the current thresholds of significance were used in this CEQA analysis to demonstrate that the project would not generate substantial GHG emissions.

IMPACT EVALUATION

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

Less Than Significant Impact

The project would generate temporary GHG emissions through construction activities, such as operation of on-site heavy construction equipment and off-site construction vehicle trips, and would generate long-term GHG emissions through project operations related to the direct and indirect use of fossil fuels such as electricity, natural gas, diesel, and gasoline.

The BAAQMD does not recommend a threshold of significance for GHG emissions during construction because there is not sufficient evidence to determine a level at which temporary construction emissions are significant (BAAQMD, 2009). A construction contractor has no incentive to waste fuel during construction and, therefore, it is generally assumed that GHG emissions during construction would be minimized to the maximum extent feasible. Furthermore, the idling times for off-road construction equipment would be limited to a maximum idling time to 5 minutes, as required by the CARB's Airborne Toxic Control Measure to reduce emissions from diesel-fueled vehicles (Title 13, Section 2485 of California Code of Regulations). Therefore, GHG emissions during project construction would have a less-than-significant impact on the environment.

The BAAQMD recommends using the most current version of the California Emissions Estimator Model (CalEEMod versions 2016.3.2) to estimate operation emissions of GHGs for a proposed project. CalEEMod uses widely accepted models for emission estimates combined with appropriate default data for a variety of land use projects that can be used if site-specific information is not available. The default data (e.g., emission factors) are supported by substantial evidence provided by regulatory agencies and a combination of statewide and regional surveys of existing land uses and resources. The primary input data used to estimate GHG emissions associated with construction and operation of the proposed project are summarized in **Table 9**. A copy of the CalEEMod report for the proposed project, which summarizes the input parameters, assumptions, and findings, is provided in **Appendix B**, which is available at the PCCD office.

TABLE 9 PROJECT LAND USE INPUT PARAMETERS FOR CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMod) USED TO ESTIMATE GREENHOUSE GAS EMISSIONS

Land-Use Type	CalEEMod Land-Use Type	Units	Unit Amount
Education	Day-Care Center	1,000 square feet	20
Parking	Parking Lot	spaces	16

Source: CalEEMod, Appendix B.

Project operation was assumed to begin as early as 2022. Additional project-specific information used to calculate GHG emissions in CalEEMod, including changes to default data, is summarized in **Table 10**.

TABLE 10 OPERATION ASSUMPTIONS FOR CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMod) ESTIMATE OF PROJECT GREENHOUSE GAS EMISSIONS

CalEEMod Input Category	Assumptions and Changes to Default Data
Material Movement	According to the project description, no soil export is anticipated during site preparation.
Demolition	According to the project description, no major demolition would be included in project construction.
Vehicle Trips	No additional traffic would be generated by the project.
Utility Provider	The proposed project would obtain electricity from Pacific Gas and Electric Company (PG&E). The default 2008 CO ₂ intensity factor (641 lb/MWh) was updated to PG&E's most recent CO ₂ intensity factor verified by a third party in 2016 (294 lb/MWh). Nearly 70% of PG&E's power in 2016 was from carbon-free sources (nuclear, renewables, and hydroelectric). ^a
Wastewater	Based on the design of the East Bay Municipal Utility District's wastewater treatment plant, emissions estimated from wastewater treatment assumed a process with 100% aerobic biodegradation and 100% anaerobic digestion with cogeneration.
Water Use	The project would implement mandatory measures from the statewide State of California Green Building Standards Code (CALGreen Code) to reduce indoor water use by approximately 20%.

Notes: lb/MWh = pounds per megawatt-hour. Default CalEEMod data used for all other parameters not described.

^a Pacific Gas and Electric Company (PG&E), 2018.

Source: CalEEMod (Appendix B).

The total average annual CO₂e emissions for project operation are compared to the BAAQMD's thresholds of significance in **Table 11**. The estimated unmitigated CO₂e emissions were about 96 percent below the BAAQMD's thresholds of significance for total CO₂e emissions. Therefore, the project would not generate substantial GHG emissions and operation of the proposed project would have a less-than-significant impact on the environment.

TABLE 11 AVERAGE GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION

Emission Source	CO ₂ e, MT/Year
Area	<0.1
Energy	29.9
Waste	13.1
Water	1.9
Total Project Emissions	45
Threshold of Significance	1,100
Exceed Threshold?	No

Notes: CO₂e = carbon dioxide equivalents; MT = metric tons

Source: CalEEMod (Appendix B).

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

Less Than Significant Impact

The BAAQMD's thresholds of significance were designed to ensure compliance with the State of California's AB 32 GHG reduction goals, as set forth in the CARB's Climate Change Scoping Plan (California Air Resources Board, 2017). Since the project would not generate substantial GHG emissions (see Item (a) above), it can be assumed that the project would be consistent, and not in fundamental conflict, with the AB 32 Scoping Plan and the State of California's long-term GHG reduction goals. Furthermore, the project would provide energy-saving measures associated with the

2019 Building Energy Efficiency Standards. Overall, the proposed project would not conflict with applicable plans, policies, or regulations related to GHG emission reductions in the SFBAAB, and the impact would be less than significant.

REFERENCES

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report, California Environmental Act Thresholds of Significance. October.

Bay Area Air Quality Management District (BAAQMD), 2017a. Final 2017 Clean Air Plan, April 19.

Bay Area Air Quality Management District (BAAQMD), 2017b. California Environmental Quality Act Air Quality Guidelines, May.

California Air Resources Board, 2017. California's 2017 Climate Change Scoping Plan, November.

East Bay Community Energy, 2019. Power Mix. Available at: <https://ebce.org/power-mix/>, accessed on October 12, 2019.

Intergovernmental Panel on Climate Change (IPCC), 2013. Climate Change 2013; the Physical Science Basis; Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

Intergovernmental Panel on Climate Change (IPCC), 2018. IPCC Press Release, Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments, October 8.

Pacific Gas and Electric, 2018. Independent Registry Confirms Record Low Carbon Emissions for PG&E. Available at: <https://www.pgecurrents.com/2018/03/26/independent-registry-confirms-record-low-carbon-emissions-for-pge/>, .

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMPACT EVALUATION

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

Less Than Significant Impact

Hazardous materials (e.g., fuel, oils, solvents, and paints) would be routinely transported, stored, and used at the project site used during construction activities. Operation of the project would involve only small quantities of hazardous materials (e.g., cleaning products and paint) that would be used for routine maintenance. The routine transportation, use, and disposal of hazardous materials during construction may pose health and safety hazards to construction workers if the hazardous materials are improperly handled, or to nearby residents and the environment if the hazardous materials are accidentally released into the environment. Potential impacts associated with accidental releases of hazardous materials into the environment are discussed under Item (b) below.

The routine handling and use of hazardous materials by construction workers would be performed in accordance with Occupational Safety and Health Administration (OSHA) regulations, which include training requirements for construction workers and a requirement that hazardous materials are accompanied by manufacturer's Safety Data Sheets (SDSs). California OSHA regulations include requirements for protective clothing, training, and limits on exposure to hazardous materials.

Compliance with these existing regulations would ensure that construction workers are protected from exposure to hazardous materials that may be used on the site.

Because the proposed project would result in soil disturbance greater than 1 acre, management of hazardous materials during construction activities would be subject to the requirements of the Construction General Permit (described in detail under Section X, Hydrology and Water Quality, of this Initial Study), which requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes hazardous materials storage requirements. For example, construction site operators must store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

Compliance with existing regulations described above would ensure that potential impacts from the routine transport, use, or disposal of hazardous materials during construction of the proposed project would be less than significant.

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

Less Than Significant Impact

An accidental release of hazardous materials (e.g., oils, fuels, solvents, paints) during project construction could result in exposure of construction workers, the public, and/or the environment to hazardous materials. As discussed above, the proposed project would be subject to the requirements of the Construction General Permit, which requires preparation and implementation of a SWPPP to reduce the risk of spills or leaks from reaching the environment, including procedures to address minor spills of hazardous materials. Measures to control spills, leakage, and dumping must be addressed through structural as well as non-structural Best Management Practices (BMPs), as required by the Construction General Permit. For example, equipment and materials for cleanup of spills must be available on the site, and spills and leaks must be cleaned up immediately and disposed of properly. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

The transportation of hazardous materials must be performed by a licensed hazardous waste hauler and is subject to regulations of the United States Department of Transportation (DOT), federal Resource Conservation and Recovery Act (RCRA), and the State of California. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill), and is responsible for the discharge cleanup.

The Geotechnical Report prepared for the proposed project indicates that there are large areas of serpentinite bedrock in the vicinity of the project site (Terraphase Engineering, 2019). Serpentinite bedrock commonly contains naturally occurring asbestos. The Geotechnical Report indicates that although the bedrock at the project site is Leona Rhyolite underlain at some depth by Knoxville Formation shales and sandstones, a soil sample from the project site was analyzed for asbestos, and

no asbestos was detected in the soil sample (Terraphase Engineering, 2019). Therefore, potential impacts related to the accidental release of naturally occurring asbestos would be less than significant.

The project site has not been the location of past industrial activities where chemicals could have been released to the subsurface. The site has been undeveloped with the exception of past grading activities for placement of portable classrooms that were formerly on the project site and installation of subsurface utilities on the project site. Therefore, subsurface contamination would not be expected to be encountered at the project site.

Compliance with existing regulations described above would ensure that potential impacts related to accidental releases of hazardous materials would be less than significant.

- c) *Would the project 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 handling or emission of hazardous or acutely hazardous materials near schools must consider potential health effects on children. The existing Child Care Development daycare program at Merritt Community College is located approximately 900 feet northwest of the project site, which is within one-quarter mile of the project. The proposed Child Care Development Center (CCDC) would be located at the project site upon project completion.

Acutely hazardous materials would not be handled at the project site during construction or operation, and only small quantities of hazardous materials (e.g., cleaning products and paint) would be used for routine maintenance during project operation. It is anticipated that any janitorial or painting work would only be done when children are not present on the site. Hazardous materials used during construction would be managed in accordance with applicable laws and regulations. Therefore, the handling or emission of hazardous materials during project construction and operation would have a less-than-significant impact on nearby schools.

- d) *Would the project 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 included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, also known as the "Cortese List" (CalEPA, 2019).

- 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?*

Less Than Significant Impact

Oakland International Airport is the closest airport to the project site. The project site is located approximately 5 miles northeast of the nearest runway at Oakland International Airport. The project site is not located within the Airport Influence Area of Oakland International Airport or in the vicinity of a private airstrip (Alameda County Community Development Agency, 2010). Therefore, the project would not result in aviation-related noise or safety hazards.

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

Less Than Significant Impact

Figure 7.5 of the Safety Element of the City of Oakland General Plan (City of Oakland, 2004) indicates that the emergency evacuation routes in the vicinity of the project site include Redwood Road, Skyline Boulevard, and Mountain Boulevard. The Merritt College Emergency Operation Plan (Merritt College, 2012) does not indicate specific evacuation routes, and indicates that it is expected that most major streets would be open, and as such, evacuation should be easily facilitated. The project would not alter roadways in the vicinity of the project site, or be located on a designated emergency evacuation route. Therefore, the proposed project would have a less-than-significant impact related to impairing or interfering with emergency response or evacuation.

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

Less Than Significant with Mitigation Incorporated

The project site is located in a Local Responsibility Area and is identified as a Very High Fire Hazard Severity Zone as mapped by the California Department of Forestry and Fire Protection (CAL FIRE, 2008). The project site and adjacent areas include steep terrain with dense vegetation and trees, and therefore could be susceptible to wildland fires.

Construction of the project would entail use of construction equipment that could generate sparks (e.g., vehicles, saws, mowers, acetylene torches, and welding equipment) and would involve storage and use of flammable materials (e.g., fuel and compressed gasses) that would temporarily increase fire risks. Operation of the project would also involve the use of vegetation management equipment (e.g., mowers and weed whackers) that could generate sparks and increase fire risks. If vegetation on the project site is not appropriately managed, the project could increase the risk of fire occurring on the project site and spreading from the project site to surrounding areas.

Impact HAZARDS-1: The proposed project could increase the risk of wildfire during both construction and operation due to the site being in a fire hazard area. (PS)

Mitigation Measure HAZARDS-1a: Construction contractors shall ensure the following measures are implemented to minimize the potential for accidental ignition of construction materials and

vegetation: 1) flammable/combustible materials shall be stored away from vegetated areas; 2) spark arrestors shall be fitted on all construction vehicles and equipment; 3) work that generates sparks such metal cutting, torching, and welding shall only be performed in areas where vegetation has been sufficiently cleared and the ground surface has been wetted; and 4) an adequate water source and fire extinguishers shall be available at all times for fire suppression.

Mitigation Measure HAZARDS-1b: The Peralta Community College District (PCCD) shall develop a Vegetation Management and Fire Prevention Plan prior to the start of construction, and shall implement the plan during construction and operation of the project. The Vegetation Management and Fire Prevention Plan shall include, at a minimum, the following measures:

- *Using spark arrestors on all vehicles and equipment used for vegetation management;*
- *Using fire-resistant plants when planting areas for erosion control;*
- *Pruning the lower branches of tall trees;*
- *Clearing out ground-level brush and debris; and*
- *Storing combustible materials away from vegetated areas.*

Implementation of Mitigation Measures HAZARDS-1a and HAZARDS-1b would ensure that the proposed project would result in less-than-significant impacts related to wildfires. (LTS)

REFERENCES

- Alameda County Community Development Agency, 2010. Oakland International Airport, Airport Land Use Compatibility Plan, December.
- California Environmental Protection Agency (CalEPA), 2019. Cortese List data Resources. Available at: <https://calepa.ca.gov/sitecleanup/corteselist/>, accessed on September 9, 2019.
- CAL FIRE, 2008. Alameda County Fire Hazard Severity Zones in LRA, September 3.
- City of Oakland, 2004. General Plan, Safety Element. Amended 2012.
- Merritt College, 2012. Merritt College Emergency Operations Plan. Last Updated October 29, 2014.
- Terraphase Engineering, 2019. Geotechnical Design and Geological Hazard Evaluation Report, Child Development Center, Merritt College, 12500 Campus Drive, Oakland, California, October 4.

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

INTRODUCTION

The project site is located in the Lion Creek Watershed, which originates along Skyline Boulevard in the Oakland hills and drains to San Leandro Bay and ultimately San Francisco Bay. Runoff from the project site is conveyed through an underground storm drain system that discharges into an engineered channel of Horseshoe Creek to the northwest of the project site. Horseshoe Creek transitions into a natural creek and then into an underground culvert and discharges into an artificial pond on the Mills College campus, southwest of the project site. This artificial pond discharges into Lion Creek, which discharges through Damon Slough into San Leandro Bay (Alameda County Flood Control and Water Conservation District, 2014).

IMPACT EVALUATION

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

Less Than Significant Impact

Construction activities related to the proposed project would involve grading and excavation of soil, which could result in erosion and movement of sediments into creeks, particularly during precipitation events. The potential for chemical releases is present at most construction sites due to the use of paints, fuels, lubricants, and other hazardous materials associated with construction activities. Once released, these hazardous materials could be transported to nearby surface waterways in stormwater runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters. The release of sediments and other pollutants during construction could also adversely affect water quality in receiving waters.

The proposed project would disturb greater than 1 acre of land and therefore would be required to obtain coverage under the State Water Resources Control Board's Construction General Permit (State Water Board, 2013a). On-site construction activities subject to the Construction General Permit include clearing, grading, excavation, and soil stockpiling. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. A SWPPP is required to identify all potential pollutants and their sources, including erosion and exposure of construction materials to runoff, and must include a list of Best Management Practices (BMPs) to reduce the discharge of construction-related stormwater pollutants. A SWPPP must include a detailed description of controls to reduce pollutants and outline maintenance and inspection procedures. Typical sediment and erosion BMPs include protecting storm drain inlets, establishing and maintaining construction exits, and creating perimeter controls. A SWPPP also defines proper building material staging and storage areas, identifies paint and concrete washout areas, describes proper equipment/vehicle fueling and maintenance practices, establishes measures to control equipment/vehicle washing and allowable non-stormwater discharges, and includes a spill prevention and response plan.

Operation period municipal stormwater discharges in the City of Oakland are regulated under the San Francisco Bay Regional Water Quality Control Board (RWQCB) Phase I Large Municipal Separate Storm Sewer Systems (MS4s) Municipal Regional Permit (MRP) (RWQCB, 2015). While the MRP is overseen by the RWQCB, compliance with the requirements of the MRP is the responsibility of local municipalities and is enforced through the review and approval of project plans during the permitting of projects by local municipalities. The PCCD is not subject to permitting requirements of local municipalities, and the PCCD is also not listed as a non-traditional permittee on the Phase II Small MS4s General Permit issued by the State Water Resources Control Board (State Water Board, 2013b); however, the project would be subject to the post-construction requirements of the Construction General Permit. The Construction General Permit includes post-construction stormwater performance standards that address water quality and channel protection for projects that are not in an area subject to post-construction standards of an active Phase I or II MS4 Permit with an approved Stormwater

Management Plan. The Construction General Permit requires post-construction runoff to match pre-construction runoff for the 85th-percentile storm event, which not only reduces the risk of impacts on the receiving water's channel morphology but also provides some protection of water quality by reducing the potential for erosion and siltation. The Construction General Permit also requires implementation of post-construction BMPs to reduce pollutants in stormwater discharges that are reasonably foreseeable after all construction phases have been completed, and to establish a long-term maintenance plan. Compliance with the post-construction requirements of the Construction General Permit must be demonstrated by submitting a map and post-construction runoff calculation worksheets with the Notice of Intent to the State Water Resources Control Board (State Water Board, 2013a). The PCCD proposes to control and treat post-construction stormwater runoff by directing runoff into pervious areas and bioretention planters that would retain and treat stormwater prior to the discharge of runoff to the stormwater drainage system that conveys runoff to Horseshoe Creek.

Compliance with the requirements of the Construction General Permit would ensure that the proposed project would result in less-than-significant impacts on water quality.

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

Less Than Significant Impact

The project site is not located within a designated groundwater basin (RWQCB, 2017) and is underlain by bedrock with a relatively low infiltration capacity. The project site is located to the east of the Santa Clara Valley East Bay Plan Basin, which is designated as a "medium priority" groundwater basin under the Sustainable Groundwater Management Act, and a sustainable groundwater management plan has not been established for the Santa Clara Valley East Bay Plan Basin (California Department of Water Resources, 2019). The project is not anticipated to require dewatering during construction and would not use groundwater during operation. While the project would increase impervious surface area, which can reduce infiltration and groundwater recharge, stormwater runoff from the new impervious areas of the project site would be directed to pervious areas and bioretention planters, and therefore would still have the opportunity to infiltrate the ground surface and recharge groundwater. Therefore, the project would result in less-than-significant impacts related to decreasing groundwater supplies, interfering with groundwater recharge, or impeding sustainable groundwater management of the basin.

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

Less Than Significant Impact

The project would not alter the course of a river or stream. The project would create new impervious area and could increase runoff. The project would discharge runoff to the existing storm drain that runs beneath the project site.

Erosion or Siltation

Compliance with the requirements of the Construction General Permit, including implementing a SWPPP during construction, controlling post-construction runoff to match pre-construction runoff for the 85th-percentile storm event, and implementing post-construction BMPs for stormwater discharges, would ensure that the proposed project would result in less-than-significant impacts related to erosion and sedimentation.

Increased Runoff Resulting in Flooding or Exceeding the Capacity of Stormwater Drainage Systems

Compliance with the requirements of the Construction General Permit, including controlling post-construction runoff to match pre-construction runoff for the 85th-percentile storm event, would ensure that the project would result in less-than-significant impacts related to increased runoff.

Additional Sources of Polluted Runoff

Compliance with the requirements of the Construction General Permit would ensure that the proposed project would not result in additional sources of polluted runoff.

Impacts on Flood Flows

The project site is located in an area of minimal flood hazard (i.e., not within 100-year or 500-year flood hazard zones) as mapped Federal Emergency Management Agency (FEMA, 2019), and the project site does not include any drainage courses or low-lying areas that could be susceptible to flooding. Therefore, potential impacts related to impeding or redirecting flood flows would be less than significant.

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

No Impact

The project site is located inland and at an elevation that would ensure it would not be inundated by tsunamis or other coastal flooding hazards (e.g., sea level rise and extreme high tides). A seiche is the oscillation of a body of water. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors. They can be triggered in an otherwise still body of water by strong winds, changes in atmospheric pressure, earthquakes, tsunamis, or tides. There are no bodies of water near the project site that could result in inundation of the project site due to a seiche. As discussed under Item (c) above, the project site is located in an area of minimal flood hazard (i.e., not within 100-year or

500-year flood hazard zones) as mapped by FEMA (FEMA, 2019). The project site does not include any drainage courses or low-lying areas that could be susceptible to flooding. Therefore, potential impacts related to the release of pollutants during flooding inundation would not occur.

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

Less Than Significant Impact

As discussed under Item (b) above, the project site is not located within a designated groundwater basin (RWQCB, 2017). The project site is located to the east of the Santa Clara Valley East Bay Plan Basin, which is designated as a “medium priority” groundwater basin under the Sustainable Groundwater Management Act, and a sustainable groundwater management plan has not been established for the Santa Clara Valley East Bay Plan Basin (California Department of Water Resources, 2019). Therefore, the project would not conflict with or obstruct a sustainable groundwater management plan.

The applicable water quality control plan for the project site is the RWQCB's San Francisco Bay Basin Water Quality Control Plan (Basin Plan) (RWQCB, 2017). As discussed above, stormwater runoff from the project site drains through Horseshoe Creek, Lion Creek, Damon Slough, and into San Leandro Bay and San Francisco Bay. The Basin Plan identifies Lion Creek as a water body with beneficial uses of cold and warm water habitat, wildlife habitat, and water contact and noncontact recreation. Compliance with existing regulations, as described under Item (a) above, would ensure that the project would not result in significant impacts on water quality that could create conflicts with the water quality goals and beneficial uses of water bodies established in the Basin Plan. Therefore, the proposed project would result in less-than-significant impacts related to conflicting with or obstructing implementation of a water quality control plan.

REFERENCES

- Alameda County Flood Control and Water Conservation District, 2014. Lion Creek Watershed Map. Available at: <https://acfloodcontrol.org/resources/explore-watersheds/lion-creek-watershed/>, accessed on September 9, 2019.
- California Department of Water Resources, 2019. SGMA Data Viewer. Available at: <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer>, accessed on September 9, 2019.
- Federal Emergency Management Agency (FEMA), 2019. National Flood Hazard Layer Viewer, Map Number 06001C0095G, effective August 3, 2009, Available at: <https://www.fema.gov/national-flood-hazard-layer-nfhl>, accessed on August 22, 2019.
- San Francisco Regional Water Quality Control Board (RWQCB), 2015. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19.

San Francisco Regional Water Quality Control Board (RWQCB), 2017. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Incorporating all amendments as of May 4.

State Water Resources Control Board (State Water Board), 2013a. Construction General Permit Fact Sheet, 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ, updated January 23.

State Water Resources Control Board (State Water Board), 2013b. Phase II Small MS4 General Permit Order No. 2013-0001-DWQ – Attachment B, Non-Traditional Small MS4 Permittees, NPDES General Permit No. S000004, updated July 3.

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

IMPACT EVALUATION

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

No Impact

The project site is currently vacant, having been used previously for portable classrooms that were removed from the site. No established community would be divided by the proposed project.

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

Less Than Significant Impact

The site is designated in the City of Oakland General Plan as “Institutional” and is zoned “Hillside Residential (RH-4) (Lots 6,500 to 8,000 square feet).” The City’s General Plan includes a number of policies intended to protect the environment. These issues are addressed throughout this Initial Study, which identifies mitigation measures for potentially significant environmental impacts. It should be noted that the PCCD plans to exempt itself and its projects from local zoning ordinances and general plan provisions, including applicable provisions of the Oakland General Plan and Oakland Municipal Code. Where the PCCD opts to exempt itself, the PCCD strives to conform with applicable local regulations. It should be noted that the proposed Child Care Development Center (CCDC) use of the site is consistent with the site’s zoning.

REFERENCES

City of Oakland, 1997. Oakland Planning Code 1997: A Codification of the General Planning Ordinances of the City of Oakland, CA (amended 2017).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT EVALUATION

- a) *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?*

No Impact

The site is within an area designated as MRZ-2(a), which is a designation that can apply to areas of significant aggregate deposits (California Department of Conservation, 1982). However, when this kind of material is found in an urbanized area, it is not designated as a “production” area. Therefore, with the project site being within an urbanized area of the City of Oakland, the project would not remove a production zone of value.

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

No Impact

No locally important mineral resource recovery sites have been identified at the site in the City of Oakland General Plan.

REFERENCES

California Department of Conservation, 1982. Mineral Land Classification Map (Aggregate Resources Only) for Alameda and Contra Costa Counties.

California Department of Conservation, Division of Mines and Geology, 1987. Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area.

City of Oakland, 2019. Website for City's General Plan. Available at: <http://www2.oaklandnet.com/oakca1/groups/ceda/documents/webcontent/oak035250.pdf>, accessed on October 15, 2019.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

INTRODUCTION

Noise Concepts and Terminology

Noise is commonly defined as unwanted sound that annoys or disturbs people and can have an adverse psychological or physiological effect on human health. Sound is measured in decibels (dB), which is a logarithmic scale. Decibels describe the purely physical intensity of sound based on changes in air pressure, but they cannot accurately describe sound as perceived by the human ear since the human ear is only capable of hearing sound within a limited frequency range. For this reason, a frequency-dependent weighting system is used and monitoring results are reported in A-weighted decibels (dBA). Technical terms used to describe noise are defined in **Table 12**.

It should be noted that because decibels are based on a logarithmic scale, they cannot be added or subtracted in the usual arithmetical way. For instance, if one noise source emits a sound level of 90 dBA, and a second source is placed beside the first and also emits a sound level of 90 dBA, the combined sound level is 93 dBA, not 180 dBA. When the difference between two co-located sources of noise is 10 dBA or more, the higher noise source dominates and the lower noise source makes no perceptible difference in what people can hear or measure. For example, if the noise level is 95 dBA, and another noise source is added that produces 80 dBA noise, the noise level will still be 95 dBA.

TABLE 12 DEFINITION OF ACOUSTICAL TERMS

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound on a logarithmic scale. Sound described in decibels is usually referred to as sound or noise "level." This unit is not used in this analysis because it includes frequencies that the human ear cannot detect.
Vibration Decibel (VdB)	A unit describing the amplitude of vibration on a logarithmic scale.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
Equivalent Noise Level (L_{eq})	The average A-weighted noise level during the measurement period. For this CEQA evaluation, L_{eq} refers to a one-hour period unless otherwise stated.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured during the night between 10:00 PM and 7:00 AM.
Maximum Sound Level (L_{max})	The maximum A-weighted sound level measured by the sound level meter over a given period of time.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Peak Particle Velocity (PPV)	The maximum instantaneous peak of a vibration signal.
Root Mean Square (RMS) Velocity	The average of the squared amplitude of a vibration signal.

Source: Charles M. Salter Associates Inc., 1998. Federal Transit Administration, 2018.

In an unconfined space, such as outdoors, noise attenuates with distance according to the inverse square law. Noise levels at a known distance from point sources are reduced by 6 dBA for every doubling of that distance for hard surfaces such as cement or asphalt surfaces, and 7.5 dBA for every doubling of distance for soft surfaces such as undeveloped or vegetative surfaces (Caltrans, 1998). Noise levels at a known distance from line sources (e.g., roads, highways, and railroads) are reduced by 3 dBA for every doubling of the distance for hard surfaces and 4.5 dBA for every doubling of distance for soft surfaces (Caltrans, 1998). A greater decrease in noise levels can result from the presence of intervening structures or buffers.

A typical method for determining a person's subjective reaction to a new noise is by comparing it to existing conditions. The following describes the general effects of noise on people (Charles M. Salter Associates Inc., 1998):

- A change of 1 dBA cannot typically be perceived, except in carefully controlled laboratory experiments;
- A 3-dBA change is considered a just-perceivable difference;
- A minimum of a 5-dBA change is required before any noticeable change in community response is expected; and
- A 10-dBA change is subjectively perceived as approximately a doubling (or halving) in loudness.

Groundborne Vibration Concepts and Terminology

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors to vibration include structures (especially older masonry structures), people (especially residents, children, the elderly, and the sick), and vibration-sensitive equipment. Vibration amplitudes are usually expressed as either peak particle velocity (PPV) or the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous peak of the vibration signal. PPV is appropriate for evaluating potential damage to buildings, but it is not suitable for evaluating human response to vibration because it takes the human body time to respond to vibration signals. The response of the human body to vibration is dependent on the average amplitude of a vibration. The RMS of a signal is the average of the squared amplitude of the signal and is more appropriate for evaluating human response to vibration. PPV and RMS are normally described in units of inches per second (in/sec), and RMS is also often described in vibration decibels (VdB).

IMPACT EVALUATION

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

Less Than Significant with Mitigation Incorporated

Operation Period Noise

During operation, the proposed project would not increase traffic noise because there would be no addition to the population of existing students, staff, or faculty due to the proposed project.

The operation of the proposed CCDC building would include the use of rooftop mechanical equipment, which may include new mechanical heating, ventilation, and air conditioning (HVAC) systems. The project is expected to be exempt from the operational standards of the Oakland Municipal Code upon action by the PCCD Board of Trustees to exempt the project under California Government Code Section 53094. However, this analysis still evaluates the project's consistency with local regulations for the purposes of CEQA compliance.

Chapter 17.120.050 of the Oakland Municipal Code establishes performance standards to control dangerous or objectionable environmental effects of noise. Under this ordinance, noise from HVAC systems is prohibited from exceeding the established nighttime noise limits. The standard limits are adjusted to equal the ambient noise level if the ambient noise level exceeds the standard limits already, indicating the existing ambient noise levels are considered acceptable. The systems are required to be housed within an enclosure if located within 200 feet of a residential zone.

Consistent with the Municipal Code requirements, a screen wall would be installed to visually screen the rooftop mechanical equipment from view, as well as provide a sound barrier for noise emissions from the mechanical equipment so that the HVAC system operation would not substantially increase the ambient noise levels. This wall would reduce noise from mechanical equipment to the extent feasible. In addition, because the vicinity of the project site includes campus buildings, which generate noise from similar rooftop mechanical equipment, noise generated by the proposed building's mechanical equipment would be consistent with existing noise sources and land uses surrounding the project site. Adding a similar noise source would not significantly add to the ambient noise levels (FTA, 2018), and therefore the proposed project would not have the potential to generate a substantial increase in ambient noise levels surrounding the project site. Because the existing ambient noise levels are considered acceptable according to the Municipal Code, operation of the proposed project would not exceed the operational standards in the Municipal Code.

Construction Period Noise

During construction, the proposed project would involve the use of heavy construction equipment for site preparation, grading, building construction, paving, and architectural coating, which would temporarily increase noise levels in the vicinity of the project site. Noise impacts related to temporary noise generated by the operation of heavy construction equipment are discussed below.

Exposure of Construction Workers to Noise

Construction workers could be exposed to excessive noise from heavy equipment used during construction of the proposed project. Noise exposure of construction workers is regulated by the California Occupational Safety and Health Administration (Cal/OSHA). Title 8, Subchapter 7, Group 15, Article 105 of the California Code of Regulations (Control of Noise Exposure) sets noise exposure limits for workers and requires employers that have workers who may be exposed to noise levels above these limits to establish a hearing conservation program, make hearing protectors available, and keep records of employee noise exposure measurements. The Cal/OSHA also requires backup warning alarms that activate immediately upon reverse movement on all vehicles that have a haulage capacity of 2.5 cubic yards or more (Title 8, California Code of Regulations). The backup alarms must be audible above the surrounding ambient noise level at a distance of 200 feet. In order to meet this requirement, backup alarms are often designed to emit a sound as loud as 82 to 107 dBA L_{max} at 4 feet (NCHRP, 1999). The construction contractor for the proposed project would be subject to these regulations, and compliance with Cal/OSHA regulations would ensure that the potential for construction workers to be exposed to excessive noise would be less than significant.

Exposure of Noise-Sensitive Receptors to Construction Noise

Noise-sensitive receptors are defined as land uses where noise-sensitive people may be present or where noise-sensitive activities may occur. The nearest noise-sensitive receptors to the project site include 1) on-campus Building E (which includes classrooms) located 35 feet northwest of the project site; 2) on-campus Building A (which includes classrooms and use for child development) located 95

feet southwest of the project site; and 3) an off-site single-family home located 280 feet south of the project site.¹⁰

The project site is located within the Merritt Community College campus. The primary noise source in the vicinity of the project site is traffic noise. Based on the roadway noise contours for the year 2025 in the City of Oakland General Plan, traffic noise levels are less than 60 dBA L_{dn} at the project site and in its vicinity (City of Oakland, 2005). Classroom activities and track and field activities are also sources of noise at the project site. However, classroom activities are not considered substantial noise sources because they are characterized by people talking and are mainly indoors. Activities at the track and field facilities are only expected to generate noise periodically. Therefore, noise from classroom and track and field activities is not expected to contribute significantly to the existing ambient noise levels, which are dominated by traffic noise and are below 60 dBA L_{dn} .

Table 13 shows typical noise levels associated with various types of construction equipment that may be used at the project site. To evaluate potential construction noise impacts associated with the proposed project, this analysis quantified the noise levels that would result from the simultaneous operation of the two noisiest pieces of equipment expected to be used during each construction phase (a standard analytical approach used in acoustical analysis to estimate construction noise associated with proposed projects) (FTA, 2018). The addition of the two noisiest pieces of equipment is presented in **Table 14** to characterize the potential noise impact from the proposed project at the nearest noise-sensitive receptors in the vicinity of the project site.

Based on the construction noise estimates presented in Table 14, the three nearest noise-sensitive receptors could be subject to noise levels of up to 91 dBA, 82 dBA, and 69 dBA, depending on distance from the project site. At the two closest noise-sensitive receptor locations, construction noise could be 10 dBA higher than the ambient noise levels (below 60 dBA L_{dn}), which is subjectively perceived as approximately a doubling in loudness.

Pursuant to California Government Code Section 53094, school and community college districts may exempt themselves from the zoning ordinances of a county or city. The PCCD plans to adopt a resolution for this exemption. However, this analysis still evaluates the project's consistency with local regulations for the purposes of CEQA compliance.

Chapter 8.18.020 of the Oakland Municipal Code prohibits noises that would disturb the peace and comfort of any person from between the hours of 9:00 PM and 7:00 AM. Construction of the proposed project would occur between 7:00 AM and 5:00 PM, Monday through Friday and between 9:00 AM and 5:00 PM on Saturdays. The potential temporary noise impacts of construction activities would be mitigated, in part, by the project's compliance with the working hours limitations specified in the Municipal Code.

¹⁰ All the distances are calculated from the closest point of the project site and the construction staging area to the nearest receptor.

TABLE 13 TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT (dBA)

Phase ^a	Equipment ^a	Amount	Noise Level at 50 Feet
Site Preparation	Graders	1	85
	Tractors/Loaders/Backhoes	1	84
Grading	Concrete/Industrial Saws	1	90
	Rubber Tired Dozers	1	85
	Tractors/Loaders/Backhoes	2	84
Building Construction	Cranes	1	85
	Forklifts	2	NA
	Tractors/Loaders/Backhoes	2	84
Paving	Cement and Mortar Mixers	4	85
	Pavers	1	85
	Rollers	1	85
	Tractors/Loaders/Backhoes	1	84
Architectural Coating	Air Compressors	1	80

Notes: NA = Not available. Forklifts are not considered heavy construction equipment and therefore their noise levels are not available.

^a The construction phases and types of construction equipment are based on the California Emissions Estimator Model (CalEEMod) equipment list. The construction of the proposed project would break down into different phases, which are demolition, site preparation, foundation construction, building construction, and landscape improvements. However, it is expected that similar noise levels would be generated from the default equipment of CalEEMod.

Source: U.S. Department of Transportation (DOT), 2006.

TABLE 14 CALCULATED NOISE LEVELS AT NEAREST NOISE-SENSITIVE RECEPTORS FOR TWO NOISIEST PIECES OF EQUIPMENT FROM EACH PROJECT CONSTRUCTION PHASE (dBA)

Phase	At 35 Feet from Project Site	At 95 Feet from Project Site	At 280 Feet from Project Site
Site Preparation	91	82	69
Grading	94	85	72
Building Construction	91	82	69
Paving	91	82	69
Architectural Coating	83	74	61

Notes: According to Table 13, the two noisiest pieces of equipment during each construction phase are 1) one grader and one tractor/loader/backhoe (site preparation); 2) one concrete/industrial saw and one rubber tired dozer (grading); 3) one crane and one tractor/loader/backhoe (building construction); 4) two of the following: four cement and mortar mixers, one paver, or one roller (paving); and 5) one air compressor (architectural coating).

Source: Caltrans, 1998.

In addition, the Oakland Municipal Code includes the following construction noise control measures:

- a) All construction equipment powered by internal combustion engines shall be properly muffled and maintained.
- b) Unnecessary idling of internal combustion engines is prohibited.
- c) All stationary noise-generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences.
- d) Quiet construction equipment, particularly air compressors, are to be selected whenever possible.
- e) Use of pile drivers and jack hammers shall be prohibited on Sundays and holidays, except for emergencies and as approved in advance by the Building Official.

Implementation of the following mitigation measures would reduce potential impacts related to construction noise, similar to the requirements of the Oakland Municipal Code.

Impact NOISE-1: Project construction could result in significant increases in ambient noise levels. (PS)

Mitigation Measure NOISE-1a: The Peralta Community College District (PCCD) shall require the construction contractor to develop a set of procedures for tracking and responding to complaints received pertaining to construction vibration and noise and implement the procedures during construction. At a minimum, the procedures shall include:

- 1. Designation of an on-site construction complaint and enforcement manager for the project;*
- 2. Protocols specific to on-campus and off-campus receptors for receiving, responding to, and tracking received complaints; and*
- 3. Maintenance of a complaint log that records received complaints and how complaints were addressed.*

Mitigation Measure NOISE-1b: Nearby residents, college students, and staff shall be informed of construction activity through informational notices posted on the fence line of the construction site, nearby buildings, and classrooms. The notices shall state the date of planned construction activity and include the contact information of the construction complaint and enforcement manager identified in Mitigation Measure NOISE-1a.

Mitigation Measure NOISE-1c: To the maximum extent practicable, the construction contractor shall coordinate construction activities so that noisier construction activities do not occur during established testing periods (e.g., finals week).

Mitigation Measure NOISE-1d: For all project construction activities, the PCCD shall require the construction contractor to implement measures to reduce noise impacts related to construction. Noise reduction measures include, but are not limited to, the following:

1. *Equipment and trucks used for project construction shall use reasonable noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds), wherever feasible.*
2. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall, to the extent feasible, be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available; this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, to the extent feasible, whenever such procedures are available and consistent with required construction procedures. These recommendations shall be included in contract specifications.*
3. *To the extent feasible, stationary noise sources shall be located as far from nearby receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures to provide reasonably equivalent noise reduction as feasible.*

The combination of the above mitigation measures would reduce the impact to a less-than-significant level. (LTS)

b) *Would the project result in generation of excessive ground borne vibration or ground borne noise levels?*

Less Than Significant with Mitigation Incorporated

The Oakland General Plan (City of Oakland, 2005) does not provide a definition for vibration-sensitive receptors. According to the Federal Transit Administration (FTA) (2018), the on-campus buildings are classified as “Category 3, Institutional,” which includes institutions that have the potential for activity interference such as schools. The off-site single-family home is classified as “Category 2, Residential,” which includes all residential land uses and buildings where people normally sleep. Therefore, the on-campus buildings and the single-family home are considered vibration-sensitive.

In addition, in some cases extreme vibration can cause minor cosmetic or substantial building damage. If the project resulted in excessive vibration, potential vibration effects related to cosmetic or substantial building damage could also occur at the on-campus buildings and the single-family home.

Consistent with guidance from the FTA, vibration impacts from the proposed project would be considered potentially significant if they would exceed the FTA’s recommended vibration thresholds to prevent disturbance to people from “Occasional Events” (see **Table 15**) or damage to buildings (see **Table 16**). Specifically, in this analysis, vibration would be considered a potentially significant impact if it would exceed the following thresholds: 75 VdB at a nearby home where people normally sleep, 78 VdB at on-campus buildings where school activities are located, or 0.3 in/sec PPV for potential cosmetic damage at nearby buildings.

TABLE 15 VIBRATION CRITERIA TO PREVENT DISTURBANCE – RMS (VdB)

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Buildings where vibration would interfere with interior operations	65	65	65
Residences and buildings where people normally sleep	72	75	80
Institutional land uses with primarily daytime use	75	78	83

Notes: RMS = root mean square; VdB = vibration decibels

^a More than 70 vibration events of the same kind per day or vibration generated by a long freight train.

^b Between 30 and 70 vibration events of the same kind per day.

^c Fewer than 30 vibration events of the same kind per day.

Source: Federal Transit Administration, 2018.

TABLE 16 VIBRATION CRITERIA TO PREVENT DAMAGE TO STRUCTURES – PPV (IN/SEC)

Building Category	Peak Particle Velocity
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

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

Source: Federal Transit Administration, 2018.

Vibration Disturbance

Construction activities associated with the proposed project would result in varying degrees of groundborne vibration, depending on the equipment type, activity, and soil conditions. Published reference vibration levels for construction equipment that could be used at the project site are presented in **Table 17**. Table 17 also presents the buffer distances that would be required to reduce vibration levels to below the 75-VdB threshold for the single-family home, 78-VdB threshold for the on-campus buildings, and the 0.3-in/sec PPV threshold for potential cosmetic damage to occur at the nearby buildings. The impacts associated with vibration disturbance and vibration damage are discussed in detail below.

The closest single-family home is located 280 feet south of the project site. Building A is located 95 feet southwest of the project site. Based on the buffer distances presented in Table 17, the closest single-family home (280 feet away) is located outside of the buffer distance of 107 feet and Building A (95 feet away) is located outside of the buffer distance of 85 feet.. Therefore, these uses would not be exposed to vibration levels that exceed the 75-VdB and 78-VdB disturbance threshold, respectively. However, Building E is located within 85 feet (approximately 35 feet away) and therefore could be exposed to vibration levels that exceed the 78-VdB disturbance threshold.

TABLE 17 REFERENCE VIBRATION LEVELS AND BUFFER DISTANCES FOR CONSTRUCTION EQUIPMENT

Equipment	RMS at 25 Feet (VdB) ^a	PPV at 25 Feet (in/sec) ^b	Buffer Distances for Vibration Disturbance (Feet)	Buffer Distances for Vibration Disturbance (Feet)	Buffer Distances for Vibration Damage (Feet)
			Single-Family Home (75-VdB Threshold)	On-Campus Buildings (78-VdB Threshold)	Single-Family Home and On-Campus Buildings (0.3 in/sec PPV Threshold)
Vibratory roller	94	0.210	107	85	18
Large bulldozer	87	0.089	63	50	8.3
Loaded trucks	86	0.076	58	46	7.2
Small bulldozer	58	0.003	7	5	0.4

Notes: Receptors within the buffer distance could be affected by construction-generated vibration.

Buffer distances are calculated based on the following equations:

$$PPV2 = PPV1 \times (D1/D2)^{1.1}$$

Where:

PPV1 is the reference vibration level at the reference distance (25 feet), and PPV2 is the calculated vibration level (in this case 0.3 in/sec).

D1 is the reference distance (in this case 25 feet), and D2 is the distance from the equipment to the receiver (in this case the buffer distance).

$$RMS2 = RMS1 - 30 \log_{10} (D2/D1)$$

Where:

RMS1 is the reference vibration level at the reference distance (25 feet), and RMS2 is the calculated vibration level (in this case 75 VdB and 78 VdB).

D1 is the reference distance (in this case 25 feet), and D2 is the distance from the equipment to the receiver (in this case the buffer distance).

^a RMS = root mean square, VdB = vibration decibel.

^b PPV = peak particle velocity, in/sec = inches per second.

Source of Equation: Federal Transit Administration, 2018; California Department of Transportation (Caltrans), 2013.

Impact NOISE-2: Project construction could expose persons to or generate excessive groundborne vibration levels for Building E near the project site. (PS)

The following mitigation measures would reduce the potential vibration disturbance impacts.

Mitigation Measure NOISE-2: Mitigation Measures NOISE-1a, NOISE-1b, NOISE-1c, and NOISE-1d shall be implemented.

The above mitigation measures would require the development of a noise complaint tracking and response system; notification to nearby students and staff of planned construction activities; construction to be scheduled to avoid disrupting established testing periods scheduled at Building E, as feasible; and the implementation of measures to reduce noise generated by construction to the maximum extent feasible. These measures are relevant because high noise-generating construction activities often generate high vibration levels. These measures would reduce the potential vibration impact to a less-than-significant level. (LTS)

Vibration Damage

The closest single-family home and the closest on-campus buildings are located outside of the buffer distance of 18 feet and therefore would not be exposed to vibration levels that exceed the 0.3-in/sec damage threshold. Therefore, the potential for construction-generated vibration to result in building damage 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 2 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?*

Less Than Significant Impact

The nearest public use airport to the project site is Oakland International Airport approximately 5 miles to the southwest of the project site (FAA, 2019). The project site is not within the area of a public airport land use plan or in the vicinity of a private airstrip (Alameda County Community Development Agency, 2010). Therefore, the proposed project would not expose people at the project site to excessive noise levels from any private airstrip or public use airport.

REFERENCES

Alameda County Community Development Agency, 2010. Oakland International Airport, Airport Land Use Compatibility Plan, December.

City of Oakland, 2005. City of Oakland General Plan, Noise Element, March.

City of Oakland Municipal Code Section 17.120.050, Noise.

California Code of Regulations, Title 8, Subchapter 7, Group 15, Article 105.

California Department of Transportation (Caltrans), 1998. Technical Noise Supplement-A Technical Supplement to the Traffic Noise Analysis Protocol.

California Department of Transportation (Caltrans), 2013. Transportation and Construction Vibration Guidance Manual, September.

Charles M. Salter Associates Inc., 1998. *Acoustics – Architecture, Engineering, the Environment*.

Federal Aviation Administration (FAA), 2019. Airport Data and Contact Information. Effective: September 12, 2019. Database searched for both public-use and private-use facilities in Alameda County. Available at: http://www.faa.gov/airports/airport_safety/airportdata_5010/, accessed on September 24, 2019.

Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment Manual, FTA Report No.0123, September.

National Cooperative Highway Research Program (NCHRP), 1999. Mitigation of Nighttime Construction Noise, Vibrations, and Other Nuisances. NCHRP Synthesis 218.

U.S. Department of Transportation (DOT), 2006. FHWA Highway Construction Noise Handbook.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT EVALUATION

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

No Impact

No campus growth would be associated with the project. The new CCDC would replace an existing Child Care Development daycare program currently located in another area of the campus. No major infrastructure would be extended that could induce unplanned population growth.

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

No Impact

No people or housing would be displaced by the proposed project. The existing Child Care Development daycare program would continue to operate during construction.

REFERENCES

Site analysis by CEQA authors.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) 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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IMPACT EVALUATION

- a) *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: Fire protection, police protection, schools, parks, other public facilities?*

Less Than Significant Impact

Since the project would not increase student, faculty, or staff population on the campus, it would not cause any substantial increase in demand for public services. Therefore, no new or altered fire, police, school, park, library, or other public facilities would be needed to serve the project, and no related environmental impacts of constructing such facilities would occur.

Fire Protection and Police Services

The campus is located within the Oakland city limits, an area served by the Oakland Police Department and the Oakland Fire Department. For police services on the campus, the PCCD contracts with the Alameda County Sheriff's Office, which bases its Peralta Police Services at 333 East 8th Street in Oakland, approximately 9.5 miles west of the campus (PCCD, 2019; Alameda County Sheriff's Office, 2019). The Sheriff's Office also has a substation on the campus. The campus is served by Oakland Fire Department Engine 21, located at 13150 Skyline Boulevard about 2.5 miles west of the campus; and Engine 23, located at 7100 Foothill Boulevard about 4 miles south of the campus (City of Oakland,

2019a and 2019b; Placemakers, 2012). (For discussion of wildfire hazards, see Section IX, Hazards and Hazardous Materials, and Section XX, Wildfire, of this Initial Study.)

The project site already contains water and fire alarm utilities, and the project would include a secure alarm system connected directly to the Alameda County Sheriff's Office. The CCDC would contain a security system that would include controlled access points, an intercom system, limited visual access to classrooms and children's areas, security cameras, internal glazing to allow visual access to children's areas, security fencing for outdoor play areas, and blue safety call stations in accordance with PCCD standards. Lighting at the facility, in addition to interior lighting, would include exterior lights at the entrance, ramps and stair, walkways, play areas, and rooftop. The State of California's Division of the State Architect would review the project to determine compliance with the California Building Code and fire safety requirements. (See Chapter I, Project Description, of this Initial Study.)

During construction, the project site would be served by existing emergency response personnel, but any emergency response demands would not result in the need for new or altered facilities to be built. Once the project is in operation, no new fire or police facilities or staffing would be needed because the project would include required safety and security features and would not increase the population on the campus.

Emergency access for the project is addressed in Section IX, Hazards and Hazardous Materials, and Section XVII, Transportation, of this Initial Study.

Schools

The project is not expected to create a need for new or altered public school facilities, since the project itself is intended to replace aging public school-related facilities on an existing public community college district campus and would not increase the campus population.

Parks

No new or altered parks are expected to be needed to serve the project, as the campus already contains recreational facilities and the project would provide recreational facilities and would not increase the population on the campus. The project would not change the level of use at local or regional parks in the vicinity. Thus, the impact on park facilities is considered less than significant. See further discussion in Section XVI, Recreation, of this Initial Study.

Other Public Facilities

No other public facilities such as libraries are expected to be affected by the project, as the campus population would not change as a result of the project.

REFERENCES

Alameda County Sheriff's Office, 2019. "Contact." Available at: https://www.alamedacountysheriff.org/contact_mail.php, accessed on September 25, 2019.

City of Oakland, 2019a. "Fire Stations." Available at: <https://www.oaklandca.gov/topics/fire-stations>, accessed on September 25, 2019.

City of Oakland, 2019b. "High Fire Severity Zone with Fire Station Locations." Available at: <https://data.oaklandnet.com/Public-Safety/High-Fire-Severity-Zone-with-Fire-Station-Location/7bh2-6xdj>, accessed on September 25, 2019.

Peralta Community College District (PCCD), 2019. "Peralta Police Services Home." Available at: <http://web.peralta.edu/police-services/>, accessed on September 25, 2019.

Placemakers, 2012. "Notice of Intent to Adopt a Mitigated Negative Declaration for the Merritt College Center for Science and Allied Health," Initial Study, page 55.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMPACT EVALUATION

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

Less Than Significant Impact

The project would not cause substantial physical deterioration of existing neighborhood or regional parks or other recreational facilities, since 1) the campus already contains recreational facilities; 2) the project would not increase the student, faculty, or staff population on the campus; and 3) the project would include recreational facilities (see Item (b) below). The impact would therefore be less than significant.

- 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?*

Less Than Significant with Mitigation Incorporated

The project includes construction and expansion of on-site recreational facilities, the environmental impacts of which are evaluated throughout this Initial Study. As described in Chapter I, Project Description, of this Initial Study, the project would include play structures, hardscape and softscape play areas, and a garden area. A total of 7,000 square feet of outside play area is planned. This area would include play structures, pathways, walls, and turf (either natural or artificial). Fencing would also be provided in this area.

The project would not require construction or expansion of off-site recreational facilities; refer to Item (a) above and the discussion in Section XV, Public Services. The PCCD would comply with all mitigation measures identified in this Initial Study/Mitigated Negative Declaration. Compliance with these measures would ensure that the impact of recreational facilities included in the project would be reduced to a less-than-significant level.

REFERENCES

Project description information.

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

IMPACT EVALUATION

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

No Impact

The project would not conflict with any applicable City of Oakland transportation and circulation plans, policies, or ordinances addressing the safety or performance of the circulation system, including transit

roadways, bicycle lanes, and pedestrian paths, as outlined in the City of Oakland General Plan, the City of Oakland Pedestrian Plan, the City of Oakland Bike Plan, and the City of Oakland Interim Update to Transportation CEQA Thresholds and Guidelines. The proposed project would not result in an increase in the Merritt Community College population and therefore would not increase traffic on the campus or vehicle miles traveled compared to existing conditions.

During project construction activities, the peak daily number of construction truck trips is estimated at five, and the peak number of construction workers is estimated at 30. Construction workers would park at designated areas on the campus; construction personnel would not park on surrounding neighborhood streets. Construction-related traffic entering the project site would coincide with the AM commute peak hour (typically from 7:00 AM to 9:00 AM). However, construction traffic would be a temporary condition and is not considered a significant impact.

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

No Impact

As discussed under Item (a) above, because the proposed project is not expected to increase the campus population, the proposed project would not generate an increase in vehicle miles traveled compared to existing conditions and therefore would not exceed an applicable threshold of significance. The project would therefore have no impact.

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

No Impact

The project would not create any circulation hazards on the campus. Access and egress from Merritt Community College would not be affected.

d) Would the project result in inadequate emergency access?

No Impact

The project would continue to provide adequate emergency services access and would not affect site emergency access. Pursuant to the Merritt College Childcare Development Center 50% Schematic Design document, dated July 30, 2019, emergency response access to the building would be provided via a service vehicle driveway off of Margie Lane. See also Item (f) in Section IX, Hazards and Hazardous Materials, of this Initial Study.

REFERENCES

AE3 Partners, 2019. Merritt College Childcare Development Center (CCDC) 50% Schematic Design, July 30.

City of Oakland, 1998. *City of Oakland General Plan, Land Use and Transportation Element*.

City of Oakland. 2016. Oakland Planning and Building Department. Interim Update to Transportation CEQA Thresholds and Guidelines. Available at: <http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak062796.pdf>, accessed on November 1, 2019.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
a) 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 this is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT EVALUATION

- a) *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: (i) 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 ii) 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?*

No Impact

Assembly Bill 52 (AB 52), which became law on January 1, 2015, provides for consultation with California Native American tribes during the CEQA environmental review process, and equates significant impacts to “tribal cultural resources” with significant environmental impacts.

The consultation provisions of the law require that a public agency consult with local Native American tribes that have requested placement on that agency’s notification list for CEQA projects. Within 14 days of determining that a project application is complete, or a decision by a public agency to undertake a project, the lead agency must notify tribes of the opportunity to consult on the project, should a tribe have previously requested to be on the agency’s notification list. California Native American tribes must be recognized by the Native American Heritage Commission (NAHC) as traditionally and culturally affiliated with the project site, and must have previously requested that the lead agency notify them of projects. Tribes have 30 days following notification of a project to request consultation with the lead agency.

The purpose of consultation is to inform the lead agency in its identification and determination of the significance of tribal cultural resources. If a project is determined to result in a significant impact on an identified tribal cultural resource, the consultation process must occur and conclude prior to adoption of a Negative Declaration or Mitigated Negative Declaration, or certification of an Environmental Impact Report (Public Resources Code Sections 21080.3.1, 21080.3.2, 21082.3).

Tribal Outreach

The NAHC in West Sacramento was contacted on April 10, 2019, to review its Sacred Lands File to identify registered Native American sacred sites in or near the project site. Gayle Totton, NAHC Associate Governmental Program Analyst, stated in a letter dated April 12, 2019, “A record search of the Native American Heritage Commission Sacred Lands File was completed.... The results were negative.”

To date, no California Native American tribe has formally requested consultation notifications with the PCCD in accordance with the requirements of Public Resources Code Section 21080.3.1. Therefore, tribal consultation for the proposed project was not required for this project.

As discussed in Section V, Cultural Resources, of this Initial Study, the Northwest Information Center (NWIC) records search and the archaeological survey completed for the project did not identify evidence of Native American archaeological deposits or ancestral remains. The proposed project would have no impact on known tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources, nor has the PCCD identified a tribal cultural resource at the project site.

REFERENCES

Native American Heritage Commission (NAHC), 2019. *Merritt College Child Care Center Project*, April 12.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IMPACT EVALUATION

- a) *Would the project 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 campus receives water from the East Bay Municipal Utility District (EBMUD) through a 12-inch main line that runs through the campus. The campus discharges sewage flows into a gravity system that ties into an 8-inch main line in Campus Road and ultimately into the regional wastewater treatment facility. The campus receives electricity and natural gas services from PG&E (WLC Architects, 2009).

The project site contains water, sanitary sewer, electrical, gas, and other utility lines, and the project would include extension of these lines to the new building. (See Chapter I, Project Description, of this Initial Study.)

Since the project would not increase the student, faculty, or staff population on the campus, overall demand for water, wastewater, energy, and other utilities and services would not increase and no new or expanded facilities would be needed. Demand for these services may increase slightly during project

construction, but any increases would be temporary and would not create a need for new or expanded facilities.

Relocation of some existing utility lines on the project site may be necessary, depending on the final location of the proposed building and the locations of existing utilities on the project site. (See Chapter I, Project Description, of this Initial Study.) The building has been sited to avoid most of the underground lines, but it may be necessary to relocate a few utilities, including buried gas line that crosses the site. Given the existing disturbed nature of the site, the impact of relocating such lines is anticipated to be less than significant, and it is not expected that lines would need to be relocated in areas of sensitive vegetation such as the oak woodland north of the project site given the amount of disturbed area surrounding the building site.

Project impacts on energy resources and stormwater drainage are addressed in Section VI, Energy, and Section X, Hydrology and Water Quality, of this Initial Study, respectively.

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

Less Than Significant Impact

Refer to Item (a) above. EBMUD provides water service to the campus. The project would not increase overall water demand, since it would not increase the student, faculty, or staff population on the campus. Water demand may increase slightly during project construction, but any increases would be temporary and would not create a need for new or expanded water entitlements.

Project operations would generate demand for about 6,650 gallons of water per day (not including landscape irrigation) (Muttayan, 2019), but this demand would not affect water supplies since the overall demand for water would not change as a result of the project. Similarly, irrigation water demand from the project is not expected to exceed current demand, since the project would not create significant new landscaping on the campus.

As noted in Chapter I, Project Description, the PCCD is committed to meeting certain criteria established by the Leadership in Energy and Environmental Design (LEED) certification program, including criteria for water savings. The project's water conservation features would include low-flush toilets, low-flow sinks, and drought-tolerant landscaping. Water-efficient irrigation would be used and rainwater may be impounded for irrigation (Davis, 2019). In addition, the Division of the State Architect would review the project to determine its compliance with water conservation requirements of the State of California Green Building Standards Code (CALGreen Code). These requirements address both indoor and outdoor water use (DSA, 2017).

For these reasons, water supplies are expected to be sufficient for the project, and the impact would be less than significant.

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

Less Than Significant Impact

Refer to Item (a) above. The campus discharges sewage flows into a gravity system that ties into an 8-inch main line in Campus Road and ultimately into the regional wastewater treatment facility. The project would not change overall existing demand for wastewater treatment, since it would not increase the student, faculty, or staff population on the campus. Project operations would generate approximately 6,530 gallons of sewage per day (Muttayan, 2019), but this flow would not affect wastewater treatment capacity since the overall demand for wastewater treatment would not change as a result of the project. Therefore, impacts on wastewater treatment capacity would be less than significant.

- d) *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less Than Significant Impact

The project would not increase the student, faculty, or staff population on the campus, and therefore project operations would not generate new solid waste that would affect landfill capacity. Project construction would generate waste, some of which would require disposal at a landfill. The Altamont Landfill, which accepts solid waste from Oakland and other areas of Alameda County, has an estimated permitted capacity of 124.4 million cubic yards, a daily permitted capacity of 11,150 tons, and an estimated remaining capacity of 65.4 million cubic yards as of 2014 (CalRecycle, 2019). Construction waste from the project would represent a very small percentage of the landfill's remaining capacity, and therefore it is reasonable to assume that adequate landfill capacity would be available for this minor amount of construction debris. In addition, as part of LEED certification, the project may include use of high-recycled-content concrete and steel (Davis, 2019), which would help to reduce waste from project construction. The project would also be subject to CALGreen Code requirements for construction waste reduction and recycling (see Item (e) below).

For these reasons, the project would not be expected to generate waste in excess of applicable standards or infrastructure capacity, or otherwise impair attainment of solid waste reduction goals. The impact would be less than significant.

- e) *Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?*

Less Than Significant Impact

By law, the project must comply with all applicable federal, state, and local statutes and regulations related to solid waste. The project would be subject to the CALGreen Code, which includes requirements for waste reduction and recycling; these include requirements that a minimum of

65 percent of non-hazardous construction and demolition waste be recycled and/or salvaged for reuse, that a construction waste management plan be prepared, and that readily accessible areas be provided to allow recycling by project occupants (DSA, 2017). The Division of the State Architect would review the project to verify compliance with State of California requirements, including the CALGreen Code. In addition, as noted under Item (d) above, as part of LEED certification, the project may include use of high-recycled-content concrete and steel (Davis, 2019), which would help to reduce waste from project construction. The project therefore is not expected to cause any conflicts with statutes or regulations related to solid waste.

REFERENCES

- California Department of Resources Recycling and Recovery (CalRecycle), 2019. "Facility/Site Summary Details: Altamont Landfill & Resource Recovery (01-AA-0009)." Available at: <https://www2.calrecycle.ca.gov/swfacilities/Directory/01-AA-0009/>, accessed on September 25, 2019.
- Davis, Douglas, AIA, MBA, LEED AP, Principal, AES Partners, 2019. E-mail re. "Full List of Merritt CEQA Questions," August 22.
- Division of the State Architect (DSA), 2017. "Project Submittal Guideline: CALGreen Code." Available at: <https://www.dgs.ca.gov/DSA/Publications>, accessed on September 25, 2019.
- Muttayan, Lavanya, Associate, Plumbing, Integral Group, 2019. E-mail re. "Utility Demand," August 23.
- WLC Architects, Inc., 2009. *Merritt College Facilities Master Plan*, pages 82, 86, and 89. Available at: https://web.peralta.edu/general-services/files/2011/07/Merritt_3-6-09_REVISED_FINAL_DRAFT_Merritt_Master_Plan.pdf, accessed on September 25, 2019.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT EVALUATION

- a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact

Project impacts on adopted emergency response or emergency evacuation plans would be less than significant. Access roads to and from the project site would be unchanged, and the project site would be easily accessible by emergency vehicles. See also Item (f) in Section IX, Hazards and Hazardous Materials, of this Initial Study.

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

Less Than Significant with Mitigation Incorporated

As discussed for Impact HAZARDS-1, the project could increase the risk of wildfire during construction and operation due to the site being located within a fire hazard area. The project site is located in a "Local Responsibility Area" and is identified as a Very High Fire Hazard Severity Zone as mapped by the California Department of Forestry and Fire Protection (CAL FIRE, 2008). Refer to the discussion under Impact HAZARDS-1 and the mitigation measures included for that impact.

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

Less Than Significant Impact

While the project would be located in a fire hazard area, it would be within an already-developed college campus and would not require installation or maintenance of infrastructure that would exacerbate fire risk.

- d) *Would the project 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?*

No Impact

No significant risks would be created as a result of post-fire slope stability, runoff, or drainage changes. The site is level and the project would not create any significant drainage changes on the site.

REFERENCES

CAL FIRE, 2008. Fire Hazard Severity Zones. Website map for Oakland viewed on October 23, 2019.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMPACT 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 with Mitigation Incorporated

Impact BIOLOGY-1 addresses the potential impact on nesting birds, and mitigation measures have been included for this potential impact. Impacts CULTURAL-1 and CULTURAL-2 address potential impacts on historical and archeological resources, respectively, and mitigation measures have been included for these potential 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

The City of Oakland database on current projects ("Accela") was reviewed to determine if any significant development projects were proposed within 1,000 feet of the edge of the Merritt Community College campus (City of Oakland, 2019). The only project of significance that was identified was a 20-lot residential subdivision on Campus Drive about 500 feet south of the campus. With implementation of the mitigation measures for the CCDC, the project would not result in cumulatively considerable impacts. In addition, it is assumed that environmental review would be required for the proposed 20-lot subdivision and would have mitigation measures required as needed for potential environmental impacts if the subdivision project proceeds.

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

Less Than Significant with Mitigation Incorporated

With implementation of the mitigation measures for the CCDC, the project would not have substantial adverse effects on human beings, either directly or indirectly.

REFERENCES

City of Oakland, 2019. Website search of current projects. Available at: <https://aca.accela.com/OAKLAND/Cap/CapHome.aspx?module=Planning&TabName=Planning>; accessed on October 23, 2019.

APPENDIX A

MITIGATION MEASURES TO BE INCORPORATED INTO PROJECT

Mitigation Measure AIR-1: During project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (BAAQMD) and these measures shall be included in contract specifications:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- If any hauling activities would occur, all haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-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.
- A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.

In addition, an independent construction monitor or a Peralta Community College District (PCCD) staff member shall conduct periodic site inspections, but in no event fewer than four total inspections, during the course of construction to ensure these mitigation measures are implemented and shall issue a letter report documenting the inspection results. Reports indicating non-compliance with construction mitigation measures shall be cause to issue a stop-work order until such time as compliance is achieved. (LTS)

Mitigation Measure BIOLOGY-1: Adequate measures shall be taken to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in the nests are active use. This shall be accomplished by taking the following steps:

- If construction is proposed during the nesting season (February through August), a focused survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 14 days prior to the onset of tree removal or construction, in order to identify any active nests on the project site and in the vicinity of proposed construction.
- If no active nests are identified during the survey period, or if development is initiated during the non-breeding season (September through February), construction may proceed with no restrictions.

- If bird nests are found, an adequate setback shall be established around the nest location and construction activities restricted within this no-disturbance zone until the qualified biologist has confirmed that any young birds have fledged and are able to function outside the nest location. Required setback distances for the no-disturbance zone shall be based on input received from the California Department of Fish and Wildlife (CDFW), and may vary depending on species and sensitivity to disturbance. As necessary, the no-disturbance zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the construction area.
- A report of findings shall be prepared by the qualified biologist and submitted to the Peralta Community College District (PCCD) for review and approval prior to initiation of construction within the no-disturbance zone during the nesting season (February through August). The report either shall confirm absence of any active nests or shall confirm that any young within a designated no-disturbance zone have fledged and construction can proceed.

Implementation of Mitigation Measure BIOLOGY-1 would reduce potentially significant impacts on nesting birds to a less-than-significant level. (LTS)

Mitigation Measure CULTURAL-1: Should an archaeological deposit be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology contacted to assess the situation, determine if the deposit qualifies as a historical resource, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If the deposit is found to be significant (i.e., eligible for listing in the California Register of Historical Resources), the Peralta Community College District (PCCD) shall be responsible for funding and implementing appropriate mitigation measures. Mitigation measures may include recording of the archaeological deposit, data recovery and analysis, and public outreach regarding the scientific and cultural importance of the discovery. Upon completion of the selected mitigations, a report documenting methods, findings, and recommendations shall be prepared and submitted to the PCCD for review, and the final report shall be submitted to the Northwest Information Center at Sonoma State University. Significant archaeological materials shall be submitted to an appropriate local curation facility and used for future research and public interpretive displays, as appropriate.

The PCCD shall inform its contractor(s) of the sensitivity of the project area for archaeological deposits and shall verify that the following directive has been included in the appropriate contract documents:

"The subsurface of the construction site may be sensitive for Native American archaeological deposits and associated human remains. If archaeological deposits are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall stop and a qualified archaeologist contacted to assess the situation and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any archaeological materials. Archaeological deposits can include shellfish remains; bones; flakes of, and tools made from, obsidian, chert, and basalt; and mortars and pestles. Contractor acknowledges and understands that excavation or removal of archaeological material is prohibited by law and constitutes a misdemeanor under California Public Resources Code, Section 5097.5 and breach of contract."

With implementation of the above mitigation measure, the potential impact on historical and archaeological resources would be reduced to a less-than-significant level. (LTS)

Mitigation Measure CULTURAL-2: Mitigation Measure CULTURAL-1 shall be implemented. (LTS)

Mitigation Measure HAZARDS-1a: Construction contractors shall ensure the following measures are implemented to minimize the potential for accidental ignition of construction materials and vegetation: 1) flammable/combustible materials shall be stored away from vegetated areas; 2) spark arrestors shall be fitted on all construction vehicles and equipment; 3) work that generates sparks such metal cutting, torching, and welding shall only be performed in areas where vegetation has been sufficiently cleared and the ground surface has been wetted; and 4) an adequate water source and fire extinguishers shall be available at all times for fire suppression.

Mitigation Measure HAZARDS-1b: The Peralta Community College District (PCCD) shall develop a Vegetation Management and Fire Prevention Plan prior to the start of construction, and shall implement the plan during construction and operation of the project. The Vegetation Management and Fire Prevention Plan shall include, at a minimum, the following measures:

- Using spark arrestors on all vehicles and equipment used for vegetation management;
- Using fire-resistant plants when planting areas for erosion control;
- Pruning the lower branches of tall trees;
- Clearing out ground-level brush and debris; and
- Storing combustible materials away from vegetated areas.

Implementation of Mitigation Measures HAZARDS-1a and HAZARDS-1b would ensure that the proposed project would result in less-than-significant impacts related to wildfires. (LTS)

Mitigation Measure NOISE-1a: The Peralta Community College District (PCCD) shall require the construction contractor to develop a set of procedures for tracking and responding to complaints received pertaining to construction vibration and noise and implement the procedures during construction. At a minimum, the procedures shall include:

1. Designation of an on-site construction complaint and enforcement manager for the project;
2. Protocols specific to on-campus and off-campus receptors for receiving, responding to, and tracking received complaints; and
3. Maintenance of a complaint log that records received complaints and how complaints were addressed.

Mitigation Measure NOISE-1b: Nearby residents, college students, and staff shall be informed of construction activity through informational notices posted on the fence line of the construction site, nearby buildings, and classrooms. The notices shall state the date of planned construction activity and include the contact information of the construction complaint and enforcement manager identified in Mitigation Measure NOISE-1a.

Mitigation Measure NOISE-1c: To the maximum extent practicable, the construction contractor shall coordinate construction activities so that noisier construction activities do not occur during established testing periods (e.g., finals week).

Mitigation Measure NOISE-1d: For all project construction activities, the PCCD shall require the construction contractor to implement measures to reduce noise impacts related to construction. Noise reduction measures include, but are not limited to, the following:

1. Equipment and trucks used for project construction shall use reasonable noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds), wherever feasible.
2. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall, to the extent feasible, be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available; this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, to the extent feasible, whenever such procedures are available and consistent with required construction procedures. These recommendations shall be included in contract specifications.
3. To the extent feasible, stationary noise sources shall be located as far from nearby receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures to provide reasonably equivalent noise reduction as feasible.

The combination of the above mitigation measures would reduce the impact to a less-than-significant level. (LTS)

Mitigation Measure NOISE-2: Mitigation Measures NOISE-1a, NOISE-1b, NOISE-1c, and NOISE-1d shall be implemented.

The above mitigation measures would require the development of a noise complaint tracking and response system; notification to nearby students and staff of planned construction activities; construction to be scheduled to avoid disrupting established testing periods scheduled at Building E, as feasible; and the implementation of measures to reduce noise generated by construction to the maximum extent feasible. These measures are relevant because high noise-generating construction activities often generate high vibration levels. These measures would reduce the potential vibration impact to a less-than-significant level. (LTS)

APPENDIX B

AIR QUALITY BACKGROUND DATA

Available at Peralta Community College District office

APPENDIX C

BIOLOGY BACKGROUND INFORMATION



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extrap.	Extrap.
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	G5T1 S1	Threatened None	XERCES_CI-Critically Imperiled	500 1,300	30 S:2	0	0	0	0	2	0	2	0	0	0	2
<i>Extriplex joaquiniana</i> San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden		127 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Falco peregrinus anatum</i> American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	0 0	56 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Fissidens pauperculus</i> minute pocket moss	G3? S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	985 985	22 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Fritillaria liliacea</i> fragrant fritillary	G2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	200 200	82 S:3	0	0	0	0	1	2	3	0	2	1	0
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	G5T3 S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	0 0	112 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Gilia millefoliata</i> dark-eyed gilia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive		54 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Helianthella castanea</i> Diablo helianthella	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	500 1,800	107 S:21	4	5	2	0	0	10	6	15	21	0	0
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	G3T1 S1S2	None None	IUCN_DD-Data Deficient	1,400 1,400	6 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Hoita strobilina</i> Loma Prieta hoita	G2? S2?	None None	Rare Plant Rank - 1B.1		34 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	G4T1? S1?	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	20 20	58 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Juglans hindsii</i> Northern California black walnut	G5 S5	None None	Rare Plant Rank - CBR USDA-US Dept of Agriculture	550 550	5 S:1	0	0	0	0	0	1	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Oakland East (3712272) OR Las Trampas Ridge (3712271) OR San Leandro (3712262))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extrap.	Extrap.
<i>Accipiter cooperii</i> Cooper's hawk	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	260 950	117 S:2	0	0	1	0	0	1	0	2	2	0	0
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	20 1,111	1199 S:3	0	1	0	0	1	1	2	1	2	0	1
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	575 1,611	93 S:12	0	1	1	0	0	10	1	11	12	0	0
<i>Anomobryum julaceum</i> slender silver moss	G5? S2	None None	Rare Plant Rank - 4.2		13 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Antrozous pallidus</i> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBGW_H-High Priority	210 770	420 S:7	0	0	0	0	0	7	7	0	7	0	0
<i>Aquila chrysaetos</i> golden eagle	G5 S3	None None	BLM_S-Sensitive CDFW_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,560 1,560	321 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Arctostaphylos pallida</i> pallid manzanita	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	1,120 1,500	9 S:6	0	0	4	1	1	0	1	5	5	1	0
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.2	5 20	65 S:3	0	0	0	0	3	0	3	0	0	2	1



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	2 5	1985 S:3	0	0	1	0	0	2	3	0	3	0	0
<i>Bombus caliginosus</i> obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	300 1,200	181 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Bombus occidentalis</i> western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	25 1,000	282 S:7	0	0	0	0	0	7	7	0	7	0	0
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	G2 S2	None None	Rare Plant Rank - 1B.2	1,200 1,250	52 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Centromadia parryi</i> ssp. <i>congonii</i> Congdon's tarplant	G3T1T2 S1S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	9 40	98 S:4	0	0	2	0	1	1	2	2	3	0	1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	G3T3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	3 5	138 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	G4?T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive		68 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	G2T1 S1	Endangered None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	30 30	20 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Circus hudsonius</i> northern harrier	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	5 5	53 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	G5?T3 S3	None None	Rare Plant Rank - 4.3	400 400	20 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Clarkia franciscana</i> Presidio clarkia	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	1,000 1,000	4 S:1	0	1	0	0	0	0	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	710 710	635 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Coturnicops noveboracensis</i> yellow rail	G4 S1S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	0 20	45 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	G4T2T3 S2S3	None None	USFS_S-Sensitive	5 25	383 S:4	0	1	1	0	0	2	0	4	4	0	0
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	G3G4T1 S1	None None		580 1,400	8 S:5	0	0	0	0	0	5	4	1	5	0	0
<i>Dirca occidentalis</i> western leatherwood	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	660 1,400	71 S:14	1	5	2	0	0	6	4	10	14	0	0
<i>Eferia antiochi</i> Antioch effertian robberfly	G1G2 S1S2	None None		350 350	4 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	440 560	1376 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Eriogonum luteolum var. caninum</i> Tiburon buckwheat	G5T2 S2	None None	Rare Plant Rank - 1B.2	850 950	26 S:3	0	0	1	0	0	2	0	3	3	0	0
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	G2 S2	None None	Rare Plant Rank - 1B.2	675 675	19 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Eucyclogobius newberryi</i> tidewater goby	G3 S3	Endangered None	AFS_EN-Endangered CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	5 5	127 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lasionycteris noctivagans</i> silver-haired bat	G5 S3S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	400 400	139 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lasius cinereus</i> hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	325 660	238 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Lasthenia conjugens</i> Contra Costa goldfields	G1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	5 5	36 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lateralus jamaicensis coturniculus</i> California black rail	G3G4T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	1 6	303 S:4	1	1	0	0	1	1	2	2	3	1	0
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	G4T2 S2	Threatened Threatened		260 1,600	164 S:33	10	9	4	1	0	9	15	18	33	0	0
<i>Meconella oregana</i> Oregon meconella	G2G3 S2	None None	Rare Plant Rank - 1B.1	1,300 1,550	9 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Melospiza melodia pusillula</i> Alameda song sparrow	G5T2? S2S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	5 1,300	38 S:7	0	2	0	0	0	5	4	3	7	0	0
<i>Microcina leei</i> Lee's micro-blind harvestman	G1 S1	None None		600 600	2 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Monolopia gracilis</i> woodland woollythreads	G3 S3	None None	Rare Plant Rank - 1B.2		68 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Neotoma fuscipes annexens</i> San Francisco dusky-footed woodrat	G5T2T3 S2S3	None None	CDFW_SSC-Species of Special Concern	667 713	41 S:2	0	1	1	0	0	0	0	2	2	0	0
<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	G3 S3.2	None None		10 10	53 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Northern Maritime Chaparral</i> Northern Maritime Chaparral	G1 S1.2	None None		1,300 1,300	17 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	G1Q S1	None Endangered	Rare Plant Rank - 1B.1	920 920	17 S:1	0	0	1	0	0	0	1	0	1	0	0
<i>Polygonum marinense</i> Marin knotweed	G2Q S2	None None	Rare Plant Rank - 3.1		32 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	G5T1 S1	Endangered Endangered	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	0 10	99 S:9	0	5	3	1	0	0	1	8	9	0	0
<i>Rana boylei</i> foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	300 1,101	2411 S:6	0	1	0	0	5	0	6	0	1	0	5
<i>Rana draytonii</i> California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	300 840	1526 S:8	2	4	1	0	0	1	3	5	8	0	0
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	G1G2 S1S2	Endangered Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	1 3	144 S:4	2	0	0	0	0	2	2	2	4	0	0
<i>Rynchops niger</i> black skimmer	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_YWL-Yellow Watch List USFWS_BCC-Birds of Conservation Concern	3 3	7 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Sanicula maritima</i> adobe sanicle	G2 S2	None Rare	Rare Plant Rank - 1B.1 USFS_S-Sensitive		17 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Scapanus latimanus parvus</i> Alameda Island mole	G5THQ SH	None None	CDFW_SSC-Species of Special Concern	10 20	8 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	G2 S2.2	None None		1,120 1,120	22 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	G5T1 S1	None None	CDFW_SSC-Species of Special Concern	1 2	12 S:3	0	0	0	0	0	3	3	0	3	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status			Presence	
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extrap.	Extrap.
<i>Spergularia macrotheca</i> var. <i>longistylis</i> long-styled sand-spurrey	G5T2 S2	None None	Rare Plant Rank - 1B.2		22 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Spirinchus thaleichthys</i> longfin smelt	G5 S1	Candidate Threatened		0 0	46 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Sternula antillarum browni</i> California least tern	G4T2T3Q S2	Endangered Endangered	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	5 6	75 S:3	1	0	0	0	1	1	2	1	2	0	1
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	G2T2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	800 900	103 S:5	0	0	1	0	0	4	3	2	5	0	0
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> slender-leaved pondweed	G5T5 S2S3	None None	Rare Plant Rank - 2B.2	1,600 1,600	21 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Suaeda californica</i> California seabite	G1 S1	Endangered None	Rare Plant Rank - 1B.1		18 S:3	0	0	0	0	2	1	2	1	1	1	1
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	700 1,000	590 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Trifolium hydrophilum</i> saline clover	G2 S2	None None	Rare Plant Rank - 1B.2		49 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	G2 S2	None None	IUCN_DD-Data Deficient	0 0	39 S:2	0	0	0	0	2	0	2	0	0	0	2
<i>Viburnum ellipticum</i> oval-leaved viburnum	G4G5 S3?	None None	Rare Plant Rank - 2B.3	600 600	38 S:1	0	0	0	0	0	1	0	1	1	0	0

