City of Oakley
Planning Department

Twin Oaks Senior Residence Mixed Use Project

Initial Study/Mitigated Negative Declaration

September 2019

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, • Sacramento • CA • 95834
Office 916.372.6100 • Fax 916.419.6108

TABLE OF CONTENTS

Appendices

INITIAL STUDY

September 2019

A. BACKGROUND

1. Project Title: Twin Oaks Senior Residence Project

2. Lead Agency Name and Address: City of Oakley
Planning Department
3231 Main Street
Oakley, CA 94561

3. Contact Person and Phone Number: Ken Strelo
Principal Planner
(925) 625-7000

4. Project Location: 2605 Main Street
Oakley, CA 94561
APN 035-011-030

5. Project Sponsor's Name and Address: Highridge Costa Development Company, LLC.
330 W Victoria Street
Gardena, CA 90248
(888) 261-8390

6. Existing General Plan Designation: Commercial (CO)

7. Existing Zoning Designation: General Commercial (C)

8. Required Approvals from Other Public Agencies: None

9. Surrounding Land Uses and Setting:

The project site consists of approximately 5.85 acres located within the City of Oakley, California. Currently, the project site consists of vacant land with three coast live oak trees, other non-native trees and ruderal vegetation. The City of Oakley General Plan designates the project site as Commercial (CO) and the site is zoned General Commercial (C). Surrounding land uses include Oakley Town Center Shopping Center to the west, single-family residential development to the north and east, and a multi-family residential development to the southwest. A vacant lot is also present to the south of the project site which includes a drainage basin and riparian vegetation.

10. Project Description Summary:

The proposed project would include development of a 113,909-square foot (sf), three-story affordable housing development for senior citizens and associated amenities such as a pool, shuffle board area, bocce court, lobby, clubhouse, and fitness center. In addition, the project would include approximately 5,667 sf of retail space. The project

would include site improvements such as landscaping, construction of on-site drive aisles and parking, and utility installation. Access to the project site would be provided by an entrance along Main Street, with potential future connection to the Oakley Town Center Shopping Center to the west, as well as potential provision of an Emergency Vehicle Access (EVA) from Edgewood Drive to the east. The project would require approval of a Conditional Use Permit (CUP 02-19), Design Review (DR 07-19) and a Density Bonus Agreement (DBA 01-19).

12. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

    In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to two tribes, including the Torres Martinez Desert Cahuilla Indians and Ione Band of Miwok Indians on August 12, 2019. Consultation requests were not received from either of the tribes.

B. SOURCES

The following documents are referenced information sources used for the purposes of this Initial Study:

1. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
2. California Building Standards Commission. *California Green Building Standards Code*. 2019.
3. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.
4. California Department of Conservation. *Contra Costa County Important Farmland Map.* 2016.
5. California Department of Forestry and Fire Protection. Contra Costa *County, Fire Hazard Severity Zones in LRA*. November 7, 2009.
6. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Potrero Hill Landfill (48-AA-0075)*. Available at: https://www2.calrecycle.ca.gov/swfacilities/Directory/48-AA-0075/. Accessed September 10, 2019.
7. Caltrans. *Transportation Related Earthborne Vibrations. TAV-02-01-R9601*. February 20, 2002.
8. City of Oakley. City of Oakley General Plan Environmental Impact Report. September 2002.
9. City of Oakley. *Oakley 2020 General Plan*. December 16, 2002.
10. City of Oakley. *Strategic Energy Plan*. Fall 2015.
11. City of Oakley Police Department. *2017 Annual Report*. 2017. Available at http://www.ci.oakley.ca.us/wp-content/uploads/2018/04/Annual-Report-2017-2-2.pdf. Accessed September 10, 2019.
12. Contra Costa County Clean Water Program. *Stormwater C.3 Guidebook.* May 17, 2017.
13. Contra Costa County Flood Control District. *Contra Costa County Formed Drainage Areas.* February 7, 2008.
14. Department of Toxic Substances Control. *EnviroStor.* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed September 2019.
15. Diablo Water District. *Final 2015 Urban Water Management Plan.* June 2016.

16. Federal Emergency Management Agency. *Flood Insurance Rate Map 06013C0355G.* Effective March 21, 2017.
17. Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Guidelines.* May 2006.
18. Krazan & Associates, Inc. *Geotechnical Engineering Investigation.* May 8, 2019.
19. Krazan & Associates, Inc. *Phase I Environmental Site Assessment.* February 13, 2019.
20. Krazan & Associates, Inc. *Phase II Limited Subsurface Assessment – Soil Vapor Survey.* April 18, 2019.
21. LSA. *Technical Memorandum: Air Quality and Greenhouse Gas Aanlsyis – Twin Oaks Senior Residence Project*. August 14, 2019.
22. Olberding Environmental, Inc. *Application Form and Planning Survey Report.* May 10, 2019.
23. Olberding Environmental, Inc. *Biological Resources Analysis Report for the Proposed Project.* April 2019.
24. Saxelby Acoustics. *Environmental Noise Analysis, Twin Oaks Senior Residence IS/MND*. September 4, 2019.
25. Sacramento Metropolitan Air District. *Guide to Air Quality Assessment in Sacramento County*. Available at: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed September 2019.
26. TJKM. *Senior Housing Apartments at 2605 Main Street, Traffic Impact Analysis.* June 4, 2019.
27. Tree Management Experts. Arborist Report and Tree Protection Report. May 14, 2019.
28. Wilsey Ham. *Preliminary Drainage Report for Highridge Costa Development, Twin Oaks Senior Residence.* August 15, 2019.
29. Wilsey Ham. *Stormwater Control Report for Highridge Costa Development, Twin Oaks Senior Residence.* August 16, 2019.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ **Aesthetics**	☐ **Agriculture and Forest Resources**	✖ **Air Quality**
✖ **Biological Resources**	✖ **Cultural Resources**	☐ **Energy**
✖ **Geology and Soils**	☐ **Greenhouse Gas Emissions**	☐ **Hazards and Hazardous Materials**
☐ **Hydrology and Water Quality**	☐ **Land Use and Planning**	☐ **Mineral Resources**
✖ **Noise**	☐ **Population and Housing**	☐ **Public Services**
☐ **Recreation**	☐ **Transportation**	☐ **Tribal Cultural Resources**
☐ **Utilities and Service Systems**	☐ **Wildfire**	☐ **Mandatory Findings of Significance**

D. DETERMINATION

On the basis of this initial study:

☐ 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 applicant. 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" 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 pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Ken Strelo, Principal Planner	City of Oakley
Printed Name	For

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. The applicant has submitted this application to the City of Oakley, which is the Lead Agency for the purposes of CEQA review. The IS/MND contains an analysis of the environmental effects of construction and operation of the proposed project.

In December 2002, the City of Oakley adopted the Oakley General Plan and the Oakley General Plan Environmental Impact Report (EIR). The General Plan EIR was a program-level EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.). The General Plan EIR analyzed full implementation of the Oakley General Plan and identified measures to mitigate the significant adverse project and cumulative impacts associated with the General Plan. Pursuant to CEQA Guidelines Section 15150(a), the City of Oakley General Plan and General Plan EIR are incorporated by reference. Both documents are available at the City of Oakley, 3231 Main Street, Oakley, CA 94561.

The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

F. PROJECT DESCRIPTION

The following section provides a comprehensive description of the proposed project in accordance with CEQA Guidelines.

Project Location and Setting

The project site consists of approximately 5.85 acres located within the City of Oakley, California (see Figure 1). The site is located at 2605 Main Street, east of the Oakley Town Center shopping center and west of the terminus of Edgewood Drive (see Figure 2). The site is identified by Assessor's Parcel Number (APN) 035-011-030.

Currently, the project site contains three coast live oak and other non-native trees, and the southern portion of the site consists of a fallow vineyard. Apart from the existing trees and fallow vineyard, the remaining portions of the site are composed of vacant ruderal grassland that appears to be heavily disturbed through routine weed abatement. The topography of the site is relatively flat and does not contain any hills. The site is located approximately 1.3 miles northeast of State Route (SR) 4 and approximately 1.45 miles east of SR 160. The project site is located in an area that is primarily characterized by urban development, including residential uses to the, east and north across Main Street and with existing commercial development located to the west. Vacant land is also located south of the project site and is characterized by a drainage basin and riparian vegetation.

The project site is designated Commercial (CO) per the City's General Plan and is zoned General Commercial (C).

Project Components

The proposed project would include the development of a 130-unit, mixed use structure, with affordable senior residential units and approximately 5,667 sf of retail space. The building would be three stories, consisting of approximately 113,909 sf.

Figure 1
Regional Project Location

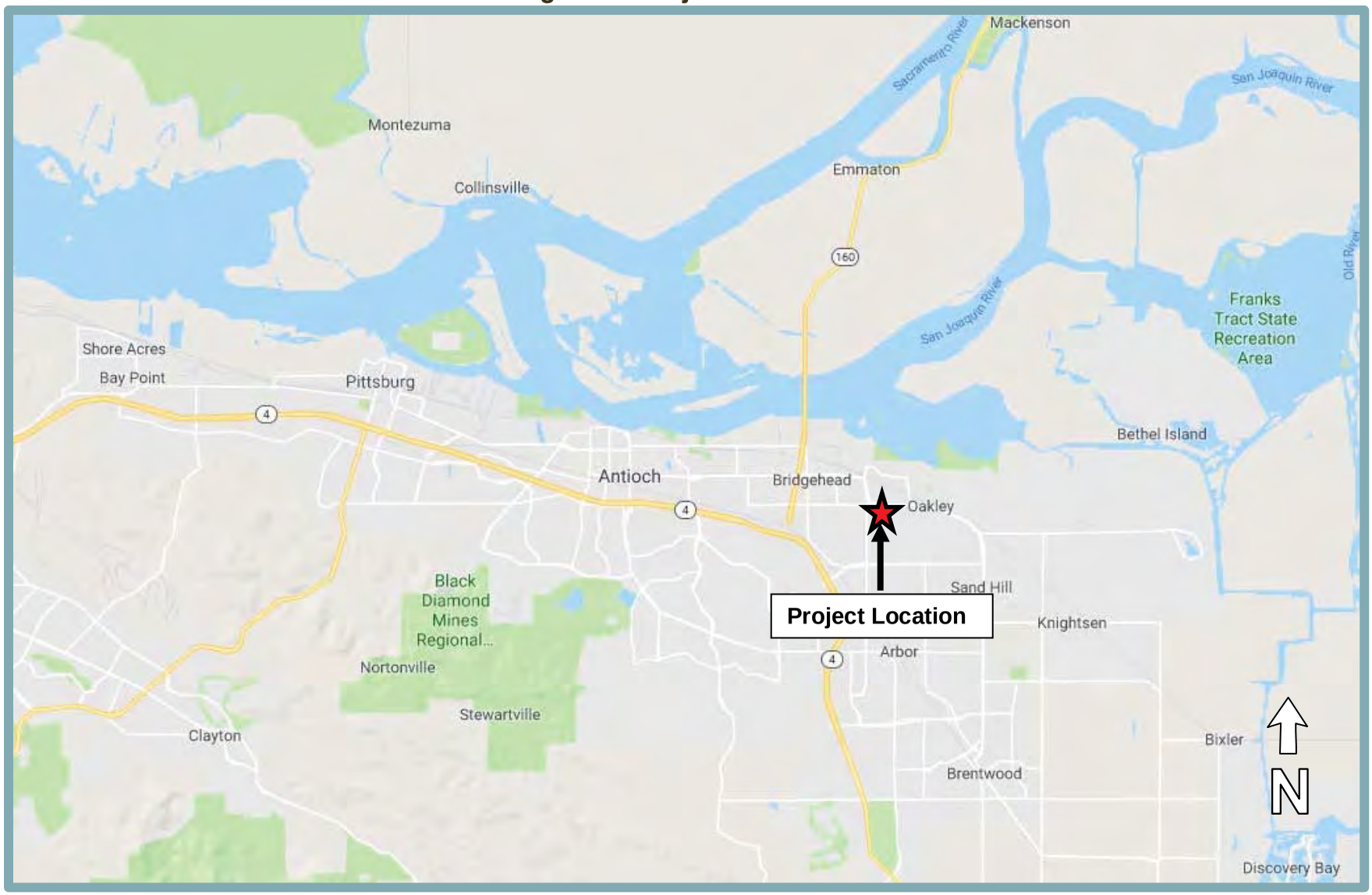


Figure 2
Project Site and Existing Boundaries

The proposed project would include amenities such as a pool and spa, pool cabanas, shuffle board, bocce court, retail space, a lobby, a clubhouse, a fitness center and various associated improvements including, but not limited to, landscaping, circulation improvements, and utility installation. The project would require City approval of a Conditional Use Permit (CUP), Design Review (DR), and a Density Bonus Agreement (DBA). The details of the proposed project are described in further detail below.

Residences and Retail

The proposed project would include a total of 130 residential units. The residential units would include 98 one-bedroom units and 32 two-bedroom units. The residential complex would be designed as affordable housing for seniors. The project would require approval of a DBA in order to allow a 35 percent density bonus. In addition, the proposed project would include 5,667 sf of retail space that would be located in the northwestern portion of the building. East of the retail space would include space for various amenities including a conference room, laundry room, library, fitness room, and storage space (see Figure 3). The building's clubhouse would be situated east of the foregoing amenities, and the lobby would be adjacent to the to the clubhouse. The lobby would act as the main entrance on the front side of the building. East of the lobby would be a designated common area for the residents with a storage and laundry room. The leasing office for the proposed senior housing development would be located in the northeastern portion of the building.

Access, Circulation, and Parking

Access to the project site would be provided by an entry point along Main Street, with proposed connection to the Oakley Town Center Shopping Center to the west, as well as potential provision of an additional Emergency Vehicle Access (EVA) from Edgewood Drive to the east (see Figure 3). The potential EVA would be approximately 26-feet wide, which would allow for emergency vehicle access within the minimum 20-foot street width requirement. It should be noted that the EVA would be for emergency vehicles only and blocked from public access.

A total of 199 parking spaces would be provided in order to accommodate the retail space, residences, and visitors. Retail and visitor parking would be available on the northernmost portion of the project site while resident parking would be primarily available along each side of the proposed building and on the southern portion of the site. Construction of the entry point from the Oakley Town Center and the connection to Edgewood Drive for EVA would require construction activity outside of, but adjacent to, the project site. Such access roadway improvements would be considered off-site. The project proposed project would also include two remote-sensing security gates to monitor vehicle access to resident parking on the eastern and western sides of the proposed building.

Landscaping

As part of the proposed project, three existing coast live oak trees in the center and southeastern portions of the project site would remain undisturbed. The proposed three-story, affordable housing building would be situated to provide residents with a central courtyard while also protecting the existing oak trees on-site. As shown in Figure 4, pathways would circulate throughout the proposed courtyard with various trees and bushes to be planted as part of the proposed landscaping. Landscaping would be required on 25 percent of the open area portions of the site. In addition, tables, chairs, and other patio furniture would be provided within the courtyards for residents.

Figure 3
Project Site Plan

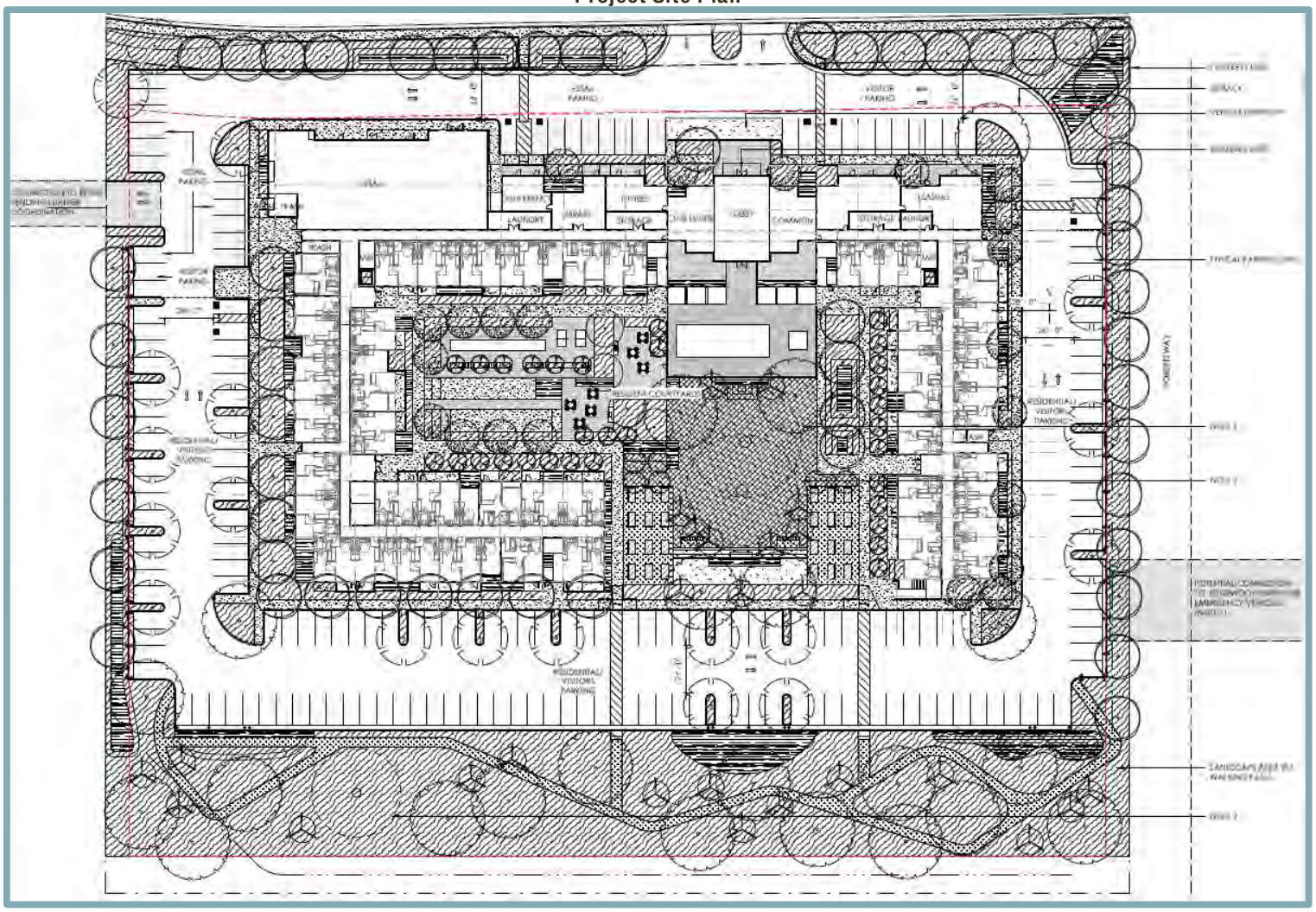
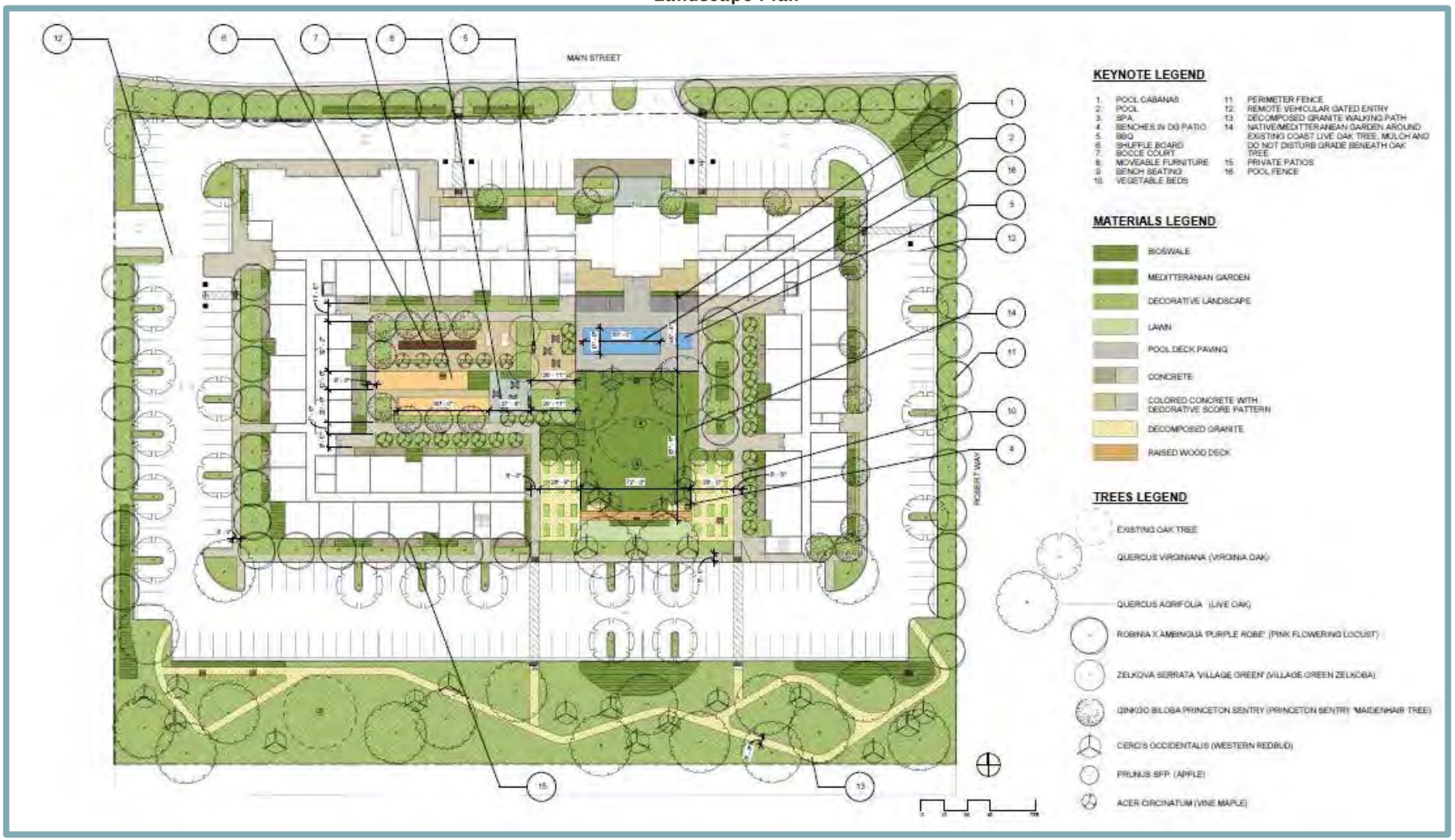


Figure 4
Landscape Plan



Utilities

Potable water service for the project would be provided by the Diablo Water District (DWD). The project would include construction of new water lines that would run throughout the project site and would service all units (see Figure 5). New water lines would connect to an existing water line within Main Street.

Sanitary sewer service is provided to the City by the Ironhouse Sanitary District (ISD). The proposed project would include installation of four- and six-inch sanitary sewer pipelines throughout the project site. The project would include connection of the new sanitary sewer lines to existing an sewer line, located within Edgewood Drive.

Stormwater generated by impervious areas within the project site would be collected by a series of new drain inlets. Stormwater would then be directed to the proposed bioretention basins located in the proposed courtyard, site boundaries, and other various locations throughout the site. Stormwater would be conveyed to the bioretention basins by way of drainage pipes sized at approximately 12-inches. Stormwater would then be discharged into the City's storm drain system by connection to existing infrastructure within Main Street and Edgewood Drive. Each basin would be designed to properly treat stormwater on the project site prior to discharge to the City system.

Design Review and Conditional Use Permit

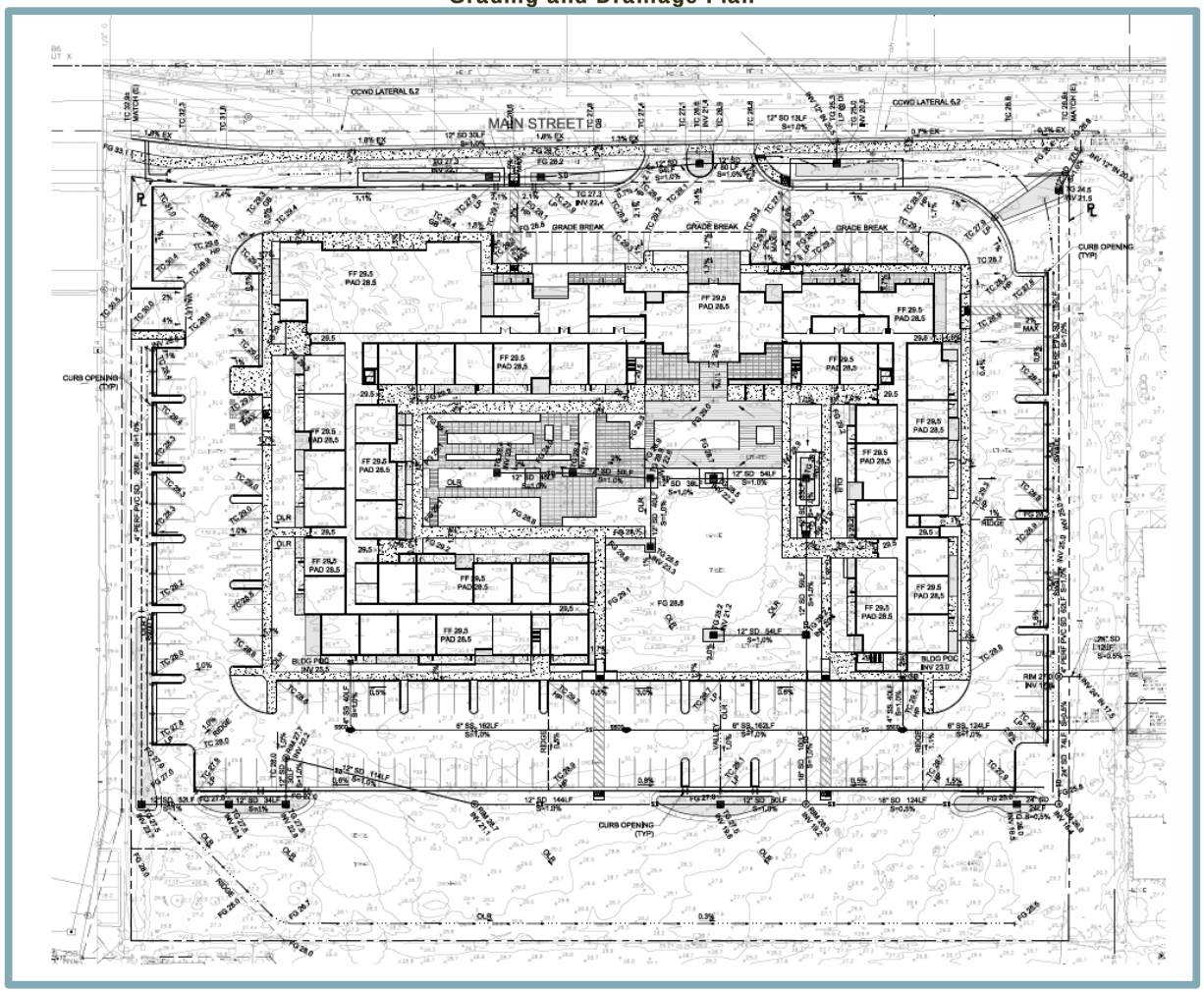
Per Section 9.1.1604 of the City's Municipal Code, the proposed project would be subject to Design Review by the City. The proposed project would be reviewed based on the standards set forth in Section 9.1.1604. Specifically, the site plan would be analyzed based on elements of design, development location, arrangement of all structures, and design in harmony with surrounding facilities. The purpose of the regulations is to allow design review of all developments, signs, buildings, structures, and other facilities in order to further enhance the City's appearance, and the livability and usefulness of properties. In addition, the proposed project would be required to obtain a CUP in order to allow development of the project site with residential uses in a C land use designation. The CUP would be processed pursuant to Section 9.1.1602 of the City's Municipal Code.

Discretionary Actions

The proposed project would require the following approvals from the City of Oakley:

- Adoption of the Initial Study/Mitigated Negative Declaration;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of a Conditional Use Permit (CUP 02-19);
- Design Review (DR 07-19); and
- Density Bonus Agreement (DBA 01-19).

Figure 5
Grading and Drainage Plan



G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

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

Discussion

a. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. A scenic vista includes any such areas designated by a federal, state, or local agency. Scenic vistas in the City of Oakley, as defined by the City's General Plan, include natural landscape features such as the Delta, Dutch Slough, Marsh Creek, the Contra Costa Canal, agricultural and other open space lands, as well as views of Mount Diablo.[1] Views of the Delta, Dutch Slough, Marsh Creek, and the Contra Costa Canal are not affected from the project site. Furthermore, the project site is located in an urbanized area, and, thus, any potential views of Mount Diablo are blocked by surrounding development. Mount Diablo is visible from portions of the project site along Main Street, and from drivers on Main Street (see Figure 6). Development of the site with a three-story affordable housing building could potentially obstruct views of Mount Diablo from the existing residences to the east and north and from motorists on Main Street.

The project site is currently designated by the City of Oakley General Plan as Commercial (CO). While buildout of the site was not anticipated for residential uses, the proposed project would result in similar visual features as that of a commercial use. Such commercial buildings could have been multiple stories and would have similarly impacted views of Mount Diablo from Main Street. The project is within the realm of what has been anticipated for the site and has been analyzed in the General Plan EIR. Furthermore, the height of the building would be a maximum of 36-feet. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista and a ***less-than-significant*** impact would occur.

[1] City of Oakley. *Oakley 2020 General Plan* [pg. 6-26]. December 16, 2002.

Figure 6
Views of the Project Site from Main Street

b. According to the California Scenic Highway Mapping System, a portion of SR 4, from the intersection of SR 4 with SR 160, west toward the Contra Costa County line is eligible for State Scenic Highway designation. The project site is located approximately 1.3 miles northeast of SR 4 and approximately 1.45 miles east of SR 160. Development of the proposed project would not affect views of any scenic resources and views of the project site from either highway are not currently available due to the distance and surrounding urban development. Because the project site is not visible from either highway, the project would not have an adverse effect on the foregoing scenic resources and scenic highways.

Therefore, development of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a ***less-than-significant*** impact would occur.

c. The visual character of the site would be changed from the existing character; however, the affordable housing development would be consistent with urban development in the surrounding area. Currently, the project is zoned C and would require Design Review. Design Review would ensure the aesthetic and architectural appeal of the development would be compatible with surrounding development. The project would use existing architectural expressions from the surrounding development and the main elements such as archways, horizontal elements, pitches and materials. The proposed project would include these design features to blend with the environment and add value to the community. Therefore, the proposed project would be compatible with the surrounding area and the visual quality would not be substantially degraded. Thus, a ***less-than-significant*** impact would occur.

d. The project site does not contain any structures and, thus, does not currently emit any sources of light or glare. Development of a senior affordable housing community would add new sources of light and glare to the site, where none currently exists. As previously discussed, the project site is surrounded by existing development including similar land uses. Light and glare associated with the proposed project would be expected to be similar to that of the surrounding area. In addition, the City's Residential Design Guidelines include standards related to the provision of lighting within projects and the City's Municipal Code includes requirements related to the review of proposed lighting during the City's Design Review process. Compliance with the City's standards and approval of Design Review would ensure that the proposed project would not result in light trespass onto adjacent properties or result in the addition of a substantial source of light or glare. Therefore, any creation of new sources of light and glare by the future project would be considered a ***less-than-significant*** impact.

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

Discussion

a,e. Per the Farmland Mapping and Monitoring Program, the project site is designated as "Urban and Built-Up Land"[2]. The site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, the project site is not currently zoned or designated for agricultural purposes. Therefore, the proposed project would not result in the loss of farmland, Unique Farmland, or Farmland of Statewide Importance, or 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. Thus, the proposed project would result in a ***less-than-significant*** impact.

b. The project site is currently designated CO per the City's General Plan and is currently zoned C; thus, the site is not zoned for agricultural use. Additionally, the site is not under a Williamson Act contract. Thus, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract, and ***no impact*** would occur.

c,d. The project area is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

[2] California Department of Conservation. *Contra Costa County Important Farmland Map.* 2016.

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

Discussion

The following section is largely based on a Technical Memorandum prepared by LSA for the proposed project.[3]

a,b. The City of Oakley 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). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in

[3] LSA. *Technical Memorandum: Air Quality and Greenhouse Gas Analysis – Twin Oaks Senior Residence Project*. August 14, 2019.

developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10} and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for ROG, NO_X, PM_{10}, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

It should be noted that BAAQMD does not maintain quantitative thresholds for fugitive emissions of PM_{10} or $PM_{2.5}$, rather, BAAQMD requires all projects within the district's jurisdiction to implement Basic Construction Mitigation Measures (BCMMs) related to dust suppression.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates, vehicle mix, trip length, average speed, compliance with the California Building Standards Code (CBSC), etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumes the following project and/or site-specific information:

- Construction would begin in June 2020;
- Construction would occur over approximately one year and three months;
- If hearths were included in the proposed residences, all hearths would be natural gas fired only; and
- The vehicle trip rate was adjusted based on project-specific information provided by TJKM traffic consultants.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well. All CalEEMod results are included in the Technical Memorandum prepared for the proposed project by LSA, which is provided as Appendix A to this IS/MND.

Construction Emissions

According to LSA, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG and NO_X, as well as below the thresholds of significance for PM_{10}, and $PM_{2.5}$ from equipment exhaust.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	5.6	54	**NO**
NO_X	19.0	54	**NO**
PM_{10} (exhaust)	0.9	82	**NO**
PM_{10} (fugitive)	1.2	Implementation of BCMMs	**N/A**
$PM_{2.5}$ (exhaust)	0.9	54	**NO**
$PM_{2.5}$ (fugitive)	0.4	Implementation of BCMMs	**N/A**

Source: LSA, August 2019 (see Appendix A).

All projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's BCMMs, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign 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 Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Project emissions would be below the thresholds of significance for ROG and NO_X, as well as for exhaust PM_{10} and $PM_{2.5}$. In addition, project construction would be required to incorporate BAAQMD's BCMMs, which would ensure that emissions of fugitive PM_{10} and $PM_{2.5}$ comply with BAAQMD's standards. the project could result in significant emissions of fugitive dust. Consequently, the proposed project would not conflict with air quality plans during project construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance.

Table 3
Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold ?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	4.9	0.8	54	10	**NO**
NO_X	5.5	0.9	54	10	**NO**
PM_{10}	2.8	0.5	82	15	**NO**
$PM_{2.5}$	0.9	0.1	54	10	**NO**

Source: LSA, August 2019 (see Appendix A).

Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to conflict with air quality plans during project operations.

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would not result in emissions above the applicable thresholds of significance for ROG, NO_X, PM_{10}, or $PM_{2.5,}$ the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State AAQS.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 CAP. Because the proposed project would not result in construction-related or operational emissions of criteria air pollutants in excess of BAAQMD's thresholds of significance, conflicts with or obstruction of the implementation of the applicable regional air quality plans would not occur. In addition, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State AAQS. Thus, a ***less-than-significant*** impact would result.

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptor would be the single-family residences located to the east of the project site, as well as the multi-family residences located to the southwest of the project site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

As discussed in Section XVII, Transportation, of this IS/MND, the addition of project traffic to local roadways would not conflict with any established operational standards for study intersections in the project vicinity. The Contra Costa Transportation Authority (CCTA) prepares traffic forecasts for the applicable congestion management plan (CMP), regional transportation plan, and local congestion management agency plans, based on existing land use and zoning designations within local jurisdictions. The proposed project is an allowable use under existing land use and zoning designations, with approval of a CUP by the City. Affordable senior housing units would likely result in the generation of fewer vehicle trips as opposed to development of the entire site for commercial purposes. Thus, increased traffic from the project site has been anticipated in the CMP, and the increase in traffic generated by the proposed project would likely be less than what has been anticipated for the area. Consequently, the proposed project would be consistent with the applicable CMP, regional transportation plan, and local congestion management agency plans. Furthermore, per the Traffic Impact Assessment prepared for the project by TJKM, all of the study intersections currently experience volumes well below 44,000 vehicles per hour. Furthermore, intersections where air mixing is inhibited do not exist in proximity to the project site. As such, based on the BAAQMD screening criteria, the proposed project would result in a less-than-significant impact related to localized CO emissions concentrations and would not expose sensitive receptors to substantial concentrations of localized CO.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. As noted above, the nearest sensitive receptors to the project site are the residential developments to the north and east of the project site.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Due to the close proximity of the project site to existing sensitive receptors, LSA prepared a health risk analysis to assess the potential impacts resulting from construction-related emissions on nearby receptors.

According to BAAQMD, a project would result in a significant impact if the project would involve operation of a new stationary source that would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10 in one million, increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). Although BAAQMD has established the foregoing thresholds for use in assessing

impacts from new stationary sources, BAAQMD has not established specific thresholds related to the analysis of construction-related TAC emissions. In the absence of specific thresholds from BAAQMD for analysis of construction-related TACs, BAAQMD's thresholds for stationary sources were applied to project-related construction emissions.

In order to estimate short-term construction-related impacts, LSA used the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD) dispersion model to translate the CalEEMod estimated emission rate from on-site construction activity to the resulting pollutant concentrations at nearby residential developments. Further details regarding LSA's dispersion modeling are provided in Appendix A of this IS/MND. However, it should be noted that the CalEEMod emissions estimates were modeled under the conservative assumption that the fleet of construction equipment used in project construction would incorporate engines equivalent to the EPA Tier 0 level. Per State regulations, construction fleets within California have begun to integrate equipment with engine tiers greater than Tier 0. Construction equipment meeting engine Tiers between 1 and 4 operate with fewer emissions, and have a reduced potential to result in health risks. Thus, by assuming all construction equipment only meets a Tier 0 standard, the health risk assessment prepared for the proposed project represents a conservative, worst-case approach to analysis, and actual health risks may be lower than what is analyzed in this IS/MND. Table 4 below presents the maximum unmitigated cancer risk, hazard index, and concentration of $PM_{2.5}$ at the maximally exposed individual (MEI).

Table 4
Maximum Unmitigated Cancer Risk, Hazard Index, and $PM_{2.5}$ Concentration Associated with Construction DPM

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
At MEI	105.0	0.073	0.000	0.34
Thresholds of Significance	10	1.0	1.0	0.30
Exceed Thresholds?	**YES**	**NO**	**NO**	**YES**

Source: LSA, August 2019 (see Appendix A).

As shown in Table 4, the risk associated with project construction at the MEI would be 105 in one million, which would exceed the BAAQMD cancer risk of 10 in one million being applied to the project. The total chronic hazard index would be 0.073, which would not exceed the applicable threshold of 1.0. In addition, the total acute hazard index would be 0.000, which would also not exceed the applicable threshold of 1.0. The results of the analysis indicate that the total $PM_{2.5}$ concentration would be 0.34 $\mu g/m^3$, which would exceed the BAAQMD's applicable significance threshold of 0.30 $\mu g/m^3$.

As indicated above, the cancer risk of 105 in one million and $PM_{2.5}$ concentration of 0.34 $\mu g/m^3$ would exceed the BAAQMD's applicable thresholds. Consequently, implementation of the proposed project could result in the exposure of sensitive receptors to substantial concentrations of TACs during project construction.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO. However, the potential exists that

project construction could expose sensitive receptors to substantial concentrations of TACs, which would be considered a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of Mitigation Measure III-2 below would result in health risks as shown in Table 5. As demonstrated in Table 5, following implementation of Mitigation Measure III-1, health risks and $PM_{2.5}$ concentrations at the MEI would be reduced below the BAAQMD's applicable thresholds, and, consequently, construction of the proposed project would not result in exposure of sensitive receptors to a substantial concentration of TACs. Therefore, implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

III-1. *Prior to issuance of a grading permit, the project applicant shall show on the grading plans via notation that the contractor shall ensure that all off-road heavy-duty diesel-powered equipment larger than 50 horsepower (e.g., rubber tired dozers, excavators, graders, scrapers, pavers, paving equipment, and cranes) to be used for each phase of construction of the project (i.e., owned, leased, and subcontractor vehicles) shall meet USEPA emissions standards for Tier 4 engines or equivalent. The grading plans shall be submitted for review and approval by the Public Works and Engineering Department.*

Table 5
Maximum Mitigated Cancer Risk, Hazard Index, and $PM_{2.5}$ Concentration Associated with Construction DPM

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
At Maximally Exposed Receptor	5.0	0.003	0.000	0.02
Thresholds of Significance	10	1.0	1.0	0.30
Exceed Thresholds?	**NO**	**NO**	**NO**	**NO**

Source: LSA, August 2019 (see Appendix A).

d. Emissions of concern include those leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections "a" through "c" above. Therefore, the following discussion focuses on emissions of odors and dust.

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[4] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor. Due to the subjective nature of

[4] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary, and hours of operation for construction equipment would be restricted to the hours of 7:30 AM and 5:30 PM on Monday through Friday per Section 4.2.208 of the City of Oakley Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources, as well as Mitigation Measure III-1 set forth within this IS/MND. The aforementioned regulations and mitigation measure would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

It should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects are minimized or eliminated.

With respect to dust, as noted previously, the proposed project would be required to implement BAAQMD's BCMMs during project construction. The BCMMs would act to reduce construction-related dust by requiring that haul trucks with loose material are covered, reducing vehicle dirt track-out, and limiting vehicle speeds within the project site, among other methods, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, and non-paved areas would be landscaped. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would result.

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

Discussion

The following discussion is based primarily on the Biological Resources Analysis Report (BRA) [5] and a Planning Survey Report (PSR)[6], prepared by Olberding Environmental, Inc., as well as an *Arborist Report and Tree Protection Report* prepared by Tree Management Experts[7] for the proposed project. The BRA, PSR, and Arborist Report are included within Appendix B to this IS/MND.

a. The BRA included a site assessment and a review of results from the California Natural Diversity Database (CNDDB) and the California Native Plant Society's Inventory of Rare and Endangered Plants to determine special-status species potentially occurring within the site. The U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) was also reviewed to help determine potential sensitive habitats in the project site and surrounding area. In addition, Olberding Environmental, Inc. conducted a reconnaissance-level survey of the project site on March 29, 2019.

Special-status species include plant and wildlife species that are listed as endangered or threatened, or are candidates for this listing under the Federal and State Endangered

5 Olberding Environmental, Inc. *Biological Resources Analysis Report for the Proposed Project.* April 2019.
6 Olberding Environmental, Inc. *Application Form and Planning Survey Report.* May 10, 2019.
7 Tree Management Experts. *Arborist Report and Tree Protection Report*. May 14, 2019.

Species Act. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

The project site is located within the boundaries of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCCHCP/NCCP), which is intended to provide an effective framework to protect natural resources in the County, including special-status species. Per the PSR prepared for the proposed project, the site is located within development fee zone three of the ECCCHCP/NCCP. In addition, the PSR also indicated that approximately 4.21 acres of the site are categorized by the Orchard land cover type, and approximately 1.85 acres of the site are characterized Vineyard. It should be noted that the portion of the project site identified as Orchard land has been predominantly cleared, and is now dominated by ruderal lands with only few orchard trees scattered throughout the site. Based on the land cover types found on-site, Olberding Environmental, Inc. conducted planning-level surveys on the project site for western burrowing owl and Swainson's hawk.

The potential for species covered by the ECCCHCP/NCCP and other special-status species to occur on the project site is discussed in further detail below.

Special-Status Plants

Special-status plants generally occur in relatively undisturbed areas within vegetation communities such as vernal pools, marshes and swamps, chenopod scrub, seasonal wetlands, riparian scrub, chaparral, alkali playa, dunes, and areas with unusual soil characteristics. Per the BRA, special-status plant species have been identified in the project vicinity. A query of the CNDDB showed the following seven special-status plant species have a high number of occurrences within five miles of the site: Contra Costa wallflower; San Joaquin spearscale; delta tule pea; Mason's lilaeopsis; delta mudwort; Antioch dunes evening primrose; and Suisun marsh aster. The majority of the foregoing species require tidal marsh, alkaline grassland and/or vernal pool, or island sand dune habitat, none of which are found within the site. Therefore, the seven special-status plant species identified within the project vicinity are not likely to occur at the project site based on the absence of suitable habitat. Furthermore, special-status plant species were not identified during the field survey of the project site.

Special-Status Wildlife

According to the BRA, a total of 11 potential special-status wildlife species have the potential to occur in the project region. Five of the 11 species were dismissed from further consideration based on a lack of suitable habitat on or near the site (i.e., chaparral, salt marshes, rock outcroppings, etc.). The remaining species are discussed below.

Special-Status Amphibians

Both the California red-legged frog (*Rana draytonii*) (CRLF) and the California tiger salamander (*Ambystoma californiense*) (CTS) have identified occurrences within the CNDDB within five miles of the project site. Both species require aquatic habitat, with CRLF requiring aquatic habitats for breeding and non-breeding (foraging or dispersal) habitat, and the CTS requiring aquatic habitat for breeding, and upland habitat for dispersal. The project site does not contain any aquatic habitats, the nearest aquatic habitat is located in an undeveloped property directly to the south of the project site.

CRLF could potentially disperse to the project site from the existing aquatic feature to the south of the site; however, the aquatic feature to the south of the project site is isolated from other aquatic habitats, and is surrounded by development, which precludes CRLF dispersal from other areas to the nearby aquatic feature of the project site. Considering the isolation of the nearby habitat, and the lack of suitable on-site habitat, CRLF are presumed to be absent from the site and implementation of the proposed project is not anticipated to impact CRLF.

While the aquatic feature to the south of the project site could potentially provide habitat to the CTS, the species requires small mammal burrows or other underground habitats (i.e. soil cracks) in upland habitats. The project site does not contain any of the features required by the species for upland habitats. Furthermore, the aquatic habitat to the south of the project site is isolated from other aquatic habitats, and is surrounded by development, which precludes CTS dispersal from other areas to the nearby aquatic feature or the project site. Considering the lack of suitable upland habitat features within the project site, CTS are presumed to be absent from the site and implementation of the proposed project is not anticipated to impact CTS.

Special-Status Reptiles

The Alameda whipsnake (*Masticophis lateralis euryzanthus*) has been identified in the project vicinity in the CNDDB. Ruderal grasslands and vineyards are not considered suitable habitat for the species. Furthermore, suitable habitat does not exist within 500 to 1,000 feet of the project site, which is the known dispersal range of the species. Therefore, Alameda whipsnakes would not have the potential to disperse to the site. Consequently, the species is presumed absent from the site, and implementation of the project would not result in impacts to Alameda whipsnakes.

Special-Status Birds

Three special-status birds as well as three state protected raptors were identified as having the potential to occur within the project site in a nesting or foraging capacity. The CDFW fully-protected white-tailed kite (*Elanus leucurus*), as well as the state protected red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), and Cooper's hawk (*Accipiter cooperii*) all have a high potential to occur within the project site in a nesting or foraging capacity. However, Olberding Environmental, Inc. did not identify any nests on-site during field surveys. Swainson's hawks (*Buteo swainsoni*) were identified by Olberding Environmental, Inc. as having a moderate potential to occur. Although Olberding Environmental, Inc. did not identify Swainson's hawks on-site, based on the land cover types identified in the PSR prepared for the project site, the use of the project site by the species is assumed. Olberding Environmental, Inc. concluded that the current on-site conditions do not provide suitable habitat for burrowing owls (*Athene cunicularia*).

However, based on the land cover types identified in the PSR prepared for the project site, the use of the project site by burrowing owls is assumed.

In addition to the foregoing species, the vineyard and ruderal grassland habitats on-site, as well as the existing on-site trees could provide suitable nesting and foraging habitat for migratory birds protected under the MBTA. For instance, Olberding Environmental, Inc. observed an American kestrel (*Falco sparverius*) foraging within the project site, although the site was determined to lack the cavities necessary for nesting of American kestrel.

Construction activities that adversely affect the nesting success of special-status birds, raptors, and/or migratory birds (i.e., lead to the abandonment of active nests) or result in mortality of individual birds constitute a violation of State and federal laws. Thus, in the event that special-status species or MBTA-protected bird species occur on-site during the breeding season, project construction activities could result in an adverse effect to special-status birds and/or birds protected under the MBTA.

Special-status Bats

Special-status bats with the potential to occur on-site include the hoary bat (*Lasiurus cinereus*) and the Western red bat (*Lasiurus blossevilli*). Both species generally roost in riparian areas with large trees. The project site does not include any riparian areas or riparian trees; however, the coast live oak trees within the site could be considered suitable habitat due to the dense foliar cover of the trees. Although not present within the project site, riparian habitat does exist in conjunction with the aquatic features on the property to the south of the project site. The riparian habitat to the south of the site would be considered suitable habitat, and the project site could provide foraging habitat for any bats roosting south of the project site. Consequently, the hoary bat and the western red bat have a moderate potential to roost or forage within the project site.

Implementation of the proposed project would involve disturbance in proximity to the existing coast live oak trees, and would involve conversion of potential foraging habitat on-site to urban uses. Consequently, the proposed project could result in an adverse effect to special-status bat species.

Conclusion

Based on the above, the proposed project would not result in any impacts to special-status plant species. Although the field survey did not identify any special-status wildlife species within the project site and the site is considered low-quality habitat, implementation of the proposed project could potentially result in adverse effects to the western burrowing owl, Swainson's hawk, white-tailed kite, other raptors, bird species protected by the MBTA, and/or special-status bats. Therefore, a ***potentially significant*** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

IV-1. *Prior to the approval of a grading permit, the developer shall pay the applicable ECCCHCP/NCCP per-acre fee in effect for the applicable zone in compliance with Section 9.2.712 of the Oakley Municipal Code.*

Western Burrowing Owl

IV-2(a). *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant shall retain a USFWS/CDFW-approved biologist to conduct a pre-construction survey for western burrowing owls within the disturbance footprint and within 500 feet from the perimeter of the footprint where possible. Surveys shall take place no more than 30 days prior to construction and shall be conducted near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. During the breeding season (February 1 to August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. Written results of the preconstruction survey shall be submitted to the City of Oakley Community Development Department. If western burrowing owls are not discovered, then further mitigation is not necessary.*

IV-2(b). *If burrowing owls are found during the breeding season (February 1 to August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 to January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (described below).*

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. Such doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Swainson's Hawk

IV-3(a). *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, which are conducted during the nesting season (March 15 to September 15), a qualified biologist shall conduct a preconstruction survey no more than one month prior to construction in order to establish whether occupied Swainson's hawk nests are located on or within 1,000 feet of the project site. A written summary of the survey results shall be submitted to the City of Oakley Community Development Department. If occupied nests are not found during the survey, further mitigation is not required.*

IV-3(b). *If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).*

During the nesting season (March 15 to September 15), covered activities within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the project applicant shall coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, covered activities may proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant may apply to the City of Oakley Community Development Department for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer may take place. All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent according to the requirements below.

The loss of non-riparian Swainson's hawk nest trees shall be mitigated by the project proponent by:

- *If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least five mature trees established for every tree lost according to the requirements listed below.*

  AND either

  1) *Pay the City of Oakley an additional fee to purchase, plant, maintain, and monitor 15 saplings on the ECCCHCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR*

  2) *The project proponent shall plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the City of Oakley Community Development Department (e.g.,*

within an ECCCHCP/NCCP Preserve or existing open space linked to ECCCHCP/NCCP preserves), according to the requirements listed below.

The following requirements shall be met for all planting options:

- *Tree survival shall be monitored at least annually for five years, then every other year until year 12. All trees lost during the first five years shall be replaced. Success shall be reached at the end of 12 years if at least five trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.*
- *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.*
- *Native trees suitable for the project site shall be planted. When site conditions permit, a variety of native trees shall be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (five to 10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.*
- *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.*
- *Whenever feasible and when site conditions permit, trees shall be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).*
- *Whenever feasible, plantings on the site shall occur closest to suitable foraging habitat outside the Urban Development Area.*
- *Trees planted in the ECCCHCP/NCCP preserves or other approved offsite location shall occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.*

White-Tailed Kite and Nesting and Migratory Birds

IV-4. *If project construction-related activities would take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors (birds of prey) within the property and the large trees within the adjacent riparian area shall be conducted by a competent biologist 14 days prior to the commencement of tree removal or site grading activities. If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone shall be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds and a minimum of 200 feet for*

raptors. The distance shall be determined by a competent biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a competent biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).

Special-Status Bats

IV-5. *Prior to removal of any on-site trees within the project site a qualified wildlife biologist experienced in surveying for and identifying bat species shall survey the portion of the site with large trees and prepare a bat habitat assessment to determine suitability of bat roost habitats on the site. If any special–status bats reside in the trees proposed for removal, such bats should be removed without harm. Bat exclusion and eviction shall only occur between February 15 and April 15, and from August 15 through October 30, in order to avoid take of non–volant (non–flying or inactive, either young, or seasonally torpid) individuals, and may only be conducted under supervision of a qualified wildlife biologist. Should exclusion and eviction be conducted on-site bat houses sufficient to shelter the number of bats removed should be erected in open space areas that would not be disturbed by project development. The bat habitat assessment and any plans related to the exclusion or eviction of identified bats shall be submitted to the City's Community Development Department for review and approval.*

b,c. The project site is currently vacant and consists of ruderal vegetation and trees. Although grassland and riparian vegetation are known to occur south of the site, the project site does not contain any wetlands, riparian habitat, or vernal pools. Therefore, the project would not have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, and regulations or by the CDFW or USFWS, and would not 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. Thus, a ***less-than-significant*** impact would occur.

d. Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or by areas of human disturbance or urban development. Topography and other natural factors in combination with urbanization can fragment or separate large open-space areas. The fragmentation of natural habitat can create isolated "islands" of vegetation and habitat that may not provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity.

The proposed project site is surrounded by urban development including existing residential development to the north, east, and south and commercial development to the west. An undeveloped parcel exists to the south of the project site; however, given the developed nature of the surrounding area, both the project site and the parcel to the south are isolated from other undeveloped areas, and neither the site or the parcel to the south would be considered a wildlife movement corridor. Consequently, the proposed project

would not interfere with the movement of any resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, and a ***less-than-significant*** impact would occur.

e. The following discussion is based on an *Arborist Report and Tree Protection Report*, prepared for the proposed project by Tree Management Experts.[8] Currently the project site contains eight trees, five of which would be removed as part of the proposed project. On-site trees include coast live oak, peach, and white mulberry.

Section 9.1.1112 of the Municipal Code defines protected trees and establishes requirements governing the removal of such. Based on the City's Municipal Code standards, the Arborist Report prepared for the project determined that three existing on-site trees would be considered protected. All three of the protected trees would be retained on-site with implementation of the proposed project, while the remaining five trees would be removed.

Construction activity such as grading, site preparation, or utility trenching in proximity to the three protected trees identified for retention could have the potential to damage the protected trees. Damage of protected trees could conflict with the City's Tree Preservation Ordinance, which would be considered a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

IV-6. Prior to the issuance of grading permits, the applicant shall develop a tree preservation plan for three protected trees in accordance with the recommendations presented in the Arborist Report and Tree Preservation Report prepared for the project. The tree preservation plan would be anticipated to include measure including, but not limited to, following practices:

1. *Install protective fencing at the edge of the dripline radius of the protected trees;*
2. *Place appropriate signage on the fencing indicating that the trees are protected and construction activity should not take place under the canopy of the protected trees. The fencing and signage should remain in place for the duration of the construction;*
3. *For tree #107, excavation, grading, and trenching should be done in a way to prevent damage to the roots of the trees. Roots greater than one inch in diameter that need to be cut for trenching or grading should be done in accordance with ANSI standards, under the direction of a qualified project arborist; and*
4. *Any pruning of the canopy of protected tree #107 to facilitate construction should be performed in accordance with ANSI standards, under the direction of a qualified project arborist.*

The tree preservation plan shall be submitted to the Community Development Department for review and approval.

[8] Tree Management Experts. *Arborist Report and Tree Protection Report.* May 14, 2019.

f. The project site is located within the boundaries of the ECCCHCP/NCCP, which establishes an effective framework to protect natural resources in eastern Contra Costa County, while improving and streamlining the environmental permitting process for impacts on endangered species and provides guidance for the mitigation of impacts to covered species. As noted previously, the site is within the range of potential habitat for several wildlife species covered under the ECCCHCP/NCCP. The PSR and field survey for the proposed project were conducted in adherence with requirements by the ECCCHCP/NCCP. Applicable Avoidance and Minimization Measures for western burrowing owl, Swainson's hawk, and nesting and migratory birds, as adapted from Chapter 6 of the ECCCHCP/NCCP, have been included in Mitigation Measures IV-2 through IV-5 of this IS/MND. Additionally, the proposed project would be subject to pay all applicable fees according to the Fee Zone Map of the ECCCHCP/NCCP prior to construction (Mitigation Measure IV-1). The developer would be required to pay the appropriate fees based on the applicable fee calculator at the time of development. Therefore, the proposed project would not conflict with the applicable provisions of the ECCCHCP/NCCP and a ***less-than-significant*** impact would occur related to conflicts with an adopted HCP, NCCP, or other approved local, regional, or State HCP.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	✖	☐	☐
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	✖	☐	☐

Discussion

a,b,c. Historical resources are features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics. According to the City's General Plan EIR, the City of Oakley does not contain any officially designated historic structures.[9]

A records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the proposed project area. The CHRIS search concluded that the project site does not contain any recorded archaeological resources, historic buildings or structures included in any lists of historic resources, nor does the project site contain Native American resources.[10] In addition, a records search by the Native American Heritage Commission (NAHC) of the Sacred Lands File resulted in negative findings of cultural resources on the project site.[11]

While historic resources have not been recorded at the project site, the potential exists for resources to occur. Thus, ground-disturbing activity related to project construction could encounter such resources. Therefore, the proposed project could cause a substantial adverse change in the significance of a historic or archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of formal cemeteries during construction. Thus, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

V-1. *If any prehistoric or historic artifacts, or other indications of cultural deposits are found once ground disturbing activities are underway, all work within the vicinity of the find(s) shall cease, the Community Development*

[9] City of Oakley. *City of Oakley General Plan Environmental Impact Report* [page 3-149]. September 2002.
[10] Northwest Information Center. Re: *Record search results for the proposed Twin Oaks Senior Residence Project, Oakley, California.* September 12, 2019.
[11] Native American Heritage Commission. *Re: Twin Oaks Senior Residence Project, Contra Costa County.* August 29, 2019.

Department shall be notified, and the find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique paleontological or archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available (CEQA Guidelines Section 15064.5). Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place (Public Resources Code Sections 21083 and 21087).

V-2. *In the event of the accidental discovery or recognition of any human remains, further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur until the County Coroner has been notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 48 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City's Community Development Department.*

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	✖	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	✖	☐

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CAL Green Code) and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2019 California Green Building Code is a portion of the California Building Standards Code (CBSC), otherwise known as the CAL Green Code (CCR Title 24, Part 11), which will become effective on January 1, 2020.[12] The purpose of the CAL Green Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CAL Green standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CAL Green Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 sf to ensure that all are working at their maximum capacity according to their design efficiencies; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

[12] California Building Standards Commission. *California Green Building Standards Code*. 2019.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2016 Building Energy Efficiency Standards resulting in a seven percent reduction in energy consumption from the 2016 standards for residential structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has recently prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),[13] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

[13] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of residential and commercial uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed residential and commercial development.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the CAL Green Code Building Energy Efficiency Standards. Adherence to the most recent CAL Green Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewables Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this IS/MND, the project site is located in an urban area with access to several public transit lines. Transit would provide access to several grocery stores, restaurants, banks, and schools within close proximity to the project site. The site's access to public transit and proximity to such uses would reduce VMT and, consequently, fuel consumption associated with the proposed affordable housing development, thereby providing for increased pedestrian connectivity with the surrounding area and resulting in reduced vehicle use.

Strategic Energy Plan (SEP)

The City of Oakley adopted a Strategic Energy Plan (SEP) in fall of 2015.[14] The City's SEP was prepared to help meet State mandates for required energy use and GHG emission reductions. The proposed project would be consistent with the goals of the SEP as the proposed project would comply with the latest CBSC standards regarding energy conservation and green building standards.

[14] City of Oakley. *Strategic Energy Plan*. Fall 2015.

Conclusion

Based on the above, construction and operations of the senior citizen residential community, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

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

Discussion

ai-ii. A geotechnical report was prepared for the proposed project by Krazan & Associates, Inc (see Appendix C).[15] According to the geotechnical report, the closest fault zone to the project site is the Great Valley Fault, which is located approximately six miles northeast of the project site. However, active fault traces do not exist in the project vicinity. Given that known surface expressions of fault traces do not exist within the project vicinity, including the site, fault rupture hazard is not a significant geologic hazard at the site. In addition, Alquist-Priolo Earthquake Fault Zones are not known to exist near the project site.

Earthquake of moderate to high magnitude generated by the above faults could cause considerable ground shaking. According to the geotechnical report, the Great Valley Fault is capable of producing an earthquake magnitude of 6.5. However, proper engineering of the proposed buildings in compliance with the existing standards of the CBSC would ensure that the project would not be subject to substantial risks related to seismic ground

[15] Krazan & Associates, Inc. *Geotechnical Engineering Investigation.* May 8, 2019.

shaking. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance with the design standards is enforced through building plan review and approval by the City. Based on the above, a ***less-than-significant*** impact would occur related to seismic surface rupture and strong seismic ground shaking.

aiii,aiv,
c. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, and subsidence/settlement are discussed in detail below.

Liquefaction

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths.

Free groundwater was encountered on the project site at a depth of approximately 15 feet. The geotechnical report included an evaluation of the potential for soil liquefaction to occur during a seismic event. Based on the evaluation, soils above a depth of 14-feet are non-liquefiable due to the absence of groundwater. Below 14-feet, soils have a slight to low potential for liquefaction due to predominantly medium dense silty sand and sand soils and the anticipated low seismicity in the project area. However, without implementation of relevant design standards, the proposed project could expose people or structures to potential risk of loss, injury, or death involving liquefaction.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The project site is relatively flat and is not located near any slopes. Therefore, landslides would not represent a likely hazard at the site.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. Given that the project site does not contain any free faces, such as those stated above, lateral spreading would not present a likely hazard at the site.

Subsidence/Settlement

Loose unsaturated sandy soils have the potential to settle during strong seismic shaking. Liquefaction can often result in subsidence or settlement. According to the geotechnical report, differential settlement caused by a seismic event is estimated to be less than two-thirds of an inch. The anticipated differential settlement is estimated over the width of the project site. While the estimated amount of settlement is relatively low, the potential still exists for subsidence or settlement to occur at the site.

Conclusion

Based on the above, the proposed project would not be subject to substantial risks related to landslides or lateral spreading. Based on the above, the potential exists for liquefaction, subsidence, or settlement to occur at the project site. Without implementation of the necessary minimization measures, the proposed project could cause substantial adverse effects related to such. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-1. *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report prepared for the proposed project by Krazan & Associates, Inc. are properly incorporated and utilized in the project design.*

b. The proposed project would include grading of the project site prior to construction of the senior residences, retail space, and parking areas. During construction activities, topsoil would be moved and graded, leading to disturbed soils. Such disturbed soils could suffer from wind and water erosion while the topsoil is exposed. Following development of the site, all exposed soils would be covered with impervious surfaces or landscaping, and, thus, long-term erosion would not occur.

Per the City of Oakley Municipal Code Sections 6.9.308 and 6.11.212, preparation of an Erosion Control Plan and Stormwater Pollution Prevention Plan (SWPPP) prior to construction activities and implementation of Best Management Practices (BMPs) during construction is required. The erosion control measures required for implementation on the proposed project by both the SWPPP and the Erosion Control Plan would ensure that the proposed project would not result in substantial soil erosion or the loss of topsoil. Therefore, impacts from soil erosion resulting from grading of the project area would be considered ***less than significant***.

d. Expansive soils can undergo significant volume changes with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of withstanding the potential damaging movements of the soil. Per the geotechnical report prepared for the proposed project, expansive soils were not encountered at the site. Because the project site is not located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property, a ***less-than-significant*** impact would occur.

e. The proposed project would connect to existing City sewer services. Thus, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, ***no impact*** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

f. The City's General Plan does not note the existence of any unique geologic features within the City. Consequently, implementation of the proposed project would not be anticipated to have the potential to result in direct or indirect destruction of unique geologic features. The City's General Plan indicates that few paleontological resources are known to occur within the City Planning Area.

In addition, the majority of the surrounding area is developed and paleontological resources have not been encountered in the vicinity. Thus, existing paleontological resources are not expected to occur on the site. Nonetheless, the potential exists for previously unknown paleontological resources could exist within the project site. Ground-disturbing activity such as grading, trenching, or excavating associated with implementation of the proposed project would have the potential to disturb or destroy such resources if present. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-2. Implement Mitigation Measures V-1 and V-2.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✖	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr.

A series of recent court cases have called into question the BAAQMD's thresholds of significance for GHG emissions. However, because the BAAQMD's thresholds of significance are supported by substantial evidence and remain the best available option, the City, as lead agency, has chosen to use the BAAQMD's thresholds of significance for evaluation of the proposed project. In recognition of the current uncertainty regarding BAAQMD's thresholds for GHG emissions, the project's consistency with applicable plans and policies for GHG emissions reductions is provided below in addition to an analysis of project-related emissions.

It should be noted that construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. In addition, neither BAAQMD nor the City has adopted thresholds of significance for construction-related GHG emissions. Nevertheless, GHG emissions resulting from construction and operations of the proposed project were modeled using the CalEEMod emissions model under the same assumptions as discussed in Section III, Air Quality, of this IS/MND. In order to evaluate the project's consistency with California's goals, the CO_2 intensity factor within CalEEMod was adjusted to reflect PG&E's progress towards achieving the State's Renewable Portfolio Standard (RPS) goals for the operational year of 2021. In addition, a Technical Memorandum prepared by LSA was used to address project consistency with State and local GHG emission standards. All modeling outputs are included in Appendix A to this IS/MND.

The project's estimated maximum annual construction emissions of 771.3 $MTCO_2e$ would be well below BAAQMD's adopted operational threshold of 1,100 $MTCO_2e$/yr. Furthermore, construction-related emissions of GHGs would be further reduced by implementation of BAAQMD's BCMMs and Mitigation Measure III-2, which would reduce equipment idling and require Tier 4 engines be used in all construction equipment. Accordingly, the proposed project would not be expected to have a significant impact related to GHG emissions during construction. Nevertheless, in order to provide a conservative estimate of emissions, the proposed project's construction GHG emissions have been amortized over the anticipated operational lifetime of the project and included with the total annual operational emissions.

The BAAQMD does not recommend any specific operational lifetimes for use in amortizing construction-related GHG emissions; however, the emissions were amortized based on information from California Executive Order D-16-00 and the U.S. Green Building Council's 2013 report on *The Costs and Financial Benefits of Green Buildings.*[16] In the absence of specific BAAQMD recommendations, a 25-year operational lifetime is used for this analysis. Construction of the proposed project would occur over one year and three months and would result in annual GHG emissions of 771.3 $MTCO_2e$. Thus, the total construction emissions amortized over 25 years would be 30.9 $MTCO_2e$/yr.

The proposed project's annual operational emissions were determined to be 735.9 $MTCO_2e$/yr. With consideration of the amortized construction emissions, total annual project GHG emissions would be approximately 766.8 $MTCO_2e$/yr. Consequently, even if project operational and amortized construction emissions were considered together, the total annual GHG emissions of 766.8 $MTCO_2e$/yr would be below BAAQMD's threshold of 1,100 $MTCO_2e$/yr. Therefore, neither construction nor operations of the proposed project would be anticipated to result in significant emissions of GHGs.

Consistency with Greenhouse Gas Reduction Plans

As discussed in Section VI. Energy, of this IS/MND, the City of Oakley adopted a SEP to help the City meet State mandates for required energy use and GHG emission reductions. The proposed project would be consistent with the goals of the SEP as the proposed project would comply with the latest CBSC standards regarding energy conservation and green building standards.

[16] Sacramento Metropolitan Air District. *Guide to Air Quality Assessment in Sacramento County*. Available at: http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed September 2019.

Absent any other local or regional Climate Action Plan, the proposed project was analyzed for consistency with the goals of AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197.

AB 32 is aimed at reducing GHG emissions to 1990 levels by 2020. AB 32 requires CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

Executive Order Executive Order B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[17] to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B- 30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving the year 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

As identified above, the AB 32 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by AB 32, Executive Order B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficiency measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, such measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As identified above, the proposed project would comply with the latest CBSC requirements, including the requirements related to energy conservation and green building standards. Therefore, the proposed project would comply with applicable energy efficiency measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with the latest CBSC, which includes a variety of measures related to water use efficiency, including reduction of water use and reduction of wastewater production. In addition, the proposed project would be required to comply with Chapter 31, Water-Efficient Landscape Requirements, of the City's Municipal Code. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

[17] California Air Resources Board. *California's 2017 Climate Change Scoping Plan*. November 2017.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. Vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. Moreover, the proposed project is a mixed-use senior housing project. By virtue of the location of the project site and the uses proposed, future residents would be located in close proximity to commercial uses, which would allow residents to walk to commercial uses. In addition, existing residents in the surrounding area would be able to walk to the proposed commercial use. By encouraging walking in the project vicinity, the proposed project would reduce the use passenger vehicles. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

Considering the above, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197 and would be consistent with applicable state plans and programs designed to reduce GHG emissions.

Conclusion

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

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

Discussion

a. A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Future operations on the project site could involve the use of common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount that could reasonably be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

b. A Phase I Environmental Site Assessment (ESA) was prepared for the project site by Krazan & Associates, Inc. on February 13, 2019 (see Appendix D).[18] The Phase I ESA included a survey of the site, review of records and an evaluation of potential recognized environmental conditions (RECs) associated with the project site.

[18] Krazan & Associates, Inc. *Phase I Environmental Site Assessment.* February 13, 2019.

According to the Phase I ESA, the project site was historically used for agricultural purposes. Although the potential exists that environmentally persistent pesticides/herbicides were historically applied to crops grown on the subject site, structures do not exist on site, material evidence of the use of pesticides/herbicides was not discovered, and any pesticides/herbicides that may occur on-site would be dislocated and diluted as a result of grading and trenching operations.

In addition, existing structures do not currently exist on the project site and have not since at least 1939. Therefore, the potential for asbestos-containing material and lead-based paint to be present on-site does not exist. It should also be noted that wells, septic systems, underground storage tanks or above ground storage tanks do not exist on-site. Based on the Phase I ESA, RECs do not exist within the project site; however, a dry-cleaning facility is located to the west of the project site. A Phase II Limited Subsurface Assessment – Soil Vapor Survey (Phase II Vapor Survey) was prepared for the project site (see Appendix D) to determine the concentration of soil vapor at the project site.[19]

According to the Phase II Vapor Survey prepared for the project site, records on file indicate that a Custom Cleaners conducted dry cleaning operations at the neighboring shopping center between the years of 1990 to 2009. The Phase II Vapor Survey included the collection of groundwater samples and vapor samples from soil vapor borings. A soil vapor encroachment condition (VEC) can exist when there is the potential for elevated volatile organic compound (VOC) vapors to migrate from former on-site activities and or from nearby VOC sources. Groundwater samples were taken for analysis of VOCs. Per the Phase II Vapor Survey, soil vapor analytical results detected various concentration of several VOCs with a reported concentration of tetrachloroethene (PCE). Based upon the soil sampling results, one minor exceedance of the screening level for residential exposure to PCE was observed.

Soil vapor samples reported various concentrations of several VOCs above laboratory reporting limits. With the exception of PCE reported at 17 micrograms per meter cubed ($\mu g/m^3$) which is very slightly above the Residential Exposure Level for PCE (15 $\mu g/m^3$) in sample SV-6, none of the other reported VOC concentrations exceeded the respective Residential Exposure. Furthermore, Soil Sample SV-6 was conducted on the western portion of the site which would be paved over with a parking area and drive aisles, and, thus, soil vapor at this location within the site would not present a significant hazard to the residences. The Phase II Vapor Survey also determined that even though the PCE concentration was found to be slightly above the Residential Exposure Level threshold for one soil sample, the potential for VOCs to pose a significant risk is relatively low. Thus, the proposed project would not have the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a ***less-than-significant*** impact would occur.

c. The nearest schools relative to the project site are Little Wonders Preschool, located approximately 0.5-mile northeast of the site, and Orchard Park School, located approximately 0.6-mile northwest of the site. Because schools are not located within a quarter mile of the site, the proposed project would result in ***no impact*** related to

[19] Krazan & Associates, Inc. *Phase II Limited Subsurface Assessment – Soil Vapor Survey.* April 18, 2019.

hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. A list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 was provided in the Phase I ESA. Based on the Phase I ESA, the project site has not been listed as a past or present hazardous materials site. Therefore, the project would have ***no impact*** with respect to being located on a hazardous materials site.

e. The closest airport to the project site is the Byron Airport, located approximately 13 miles to the south of the project site. Therefore, the project site is not located within two miles of any public airports and does not fall within an airport land use plan area. Accordingly, ***no impact*** would result related to a safety hazard or excessive noise for people residing or working in the project area.

f. During operation, the proposed project would provide adequate access for emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. The project would not substantially alter the existing circulation system in the surrounding area. As a result, the project would have a ***less-than-significant*** impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.

g. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a Very High Fire Hazard Severity Zone.[20] In addition, the site is located in an urbanized area of the City and is predominantly surrounded by existing residential and commercial development. The site is not located adjacent to wildlands. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a ***less-than-significant*** impact would occur.

[20] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. November 7, 2007.

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

Discussion

a,ci. During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Given that the proposed project would disturb 5.6 acres of land, the proposed construction activities would be subject to applicable SWRCB regulations. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes BMPs to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. Preparation of an Erosion

Control Plan and SWPPP prior to construction activities and implementation of BMPs during construction is required by Sections 6.9.308 and 6.11.212 of the City's Municipal Code.

Following completion of project buildout, the site would be largely covered with impervious surfaces and landscaping areas, and topsoil would no longer be exposed. As such, the potential for erosion and associated impacts to water quality would be reduced. However, addition of the impervious surfaces on the site would result in the generation of urban runoff during project operations, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. All municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit.

The City of Oakley has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 sf or more of impervious area to contain and treat all stormwater runoff from the project site. Thus, the proposed project would be subject to the requirements of the SWRCB and the Regional Water Quality Control Board (RWQCB), as well as the County C.3 Standards, which are included in the City's NPDES General Permit. Compliance with such requirements would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the proposed project.

In compliance with the C.3 Guidebook, the proposed project would treat storm water from the site via bioretention basins located along the perimeter of the proposed parking lots and buildings along Main Street and within the court yard (see Figure 7). Each bioretention basin would be sized to properly treat runoff from the project site. Per the SWCP, the bio-retention areas would be sized in accordance and with the Contra Costa C.3 standards. The Storm Water Control Plan (SWCP)[21] prepared for the proposed project conforms with the most recent C.3 Guidebook and verifies that the proposed project would comply with all City stormwater requirements.

Based on the above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Thus, a ***less-than-significant*** impact would occur.

b,e. Potable water service for the proposed project would be provided by the DWD. According to the DWD's Urban Water Management Plan (UWMP), the primary water supply for distribution is surface water.[22] However, the DWD does operate a groundwater supply system that currently consists of groundwater from two wells in Oakley, conveyed in a dedicated well supply pipeline to a blending facility. The wells are connected to the Tracy Subbasin underlying the City.

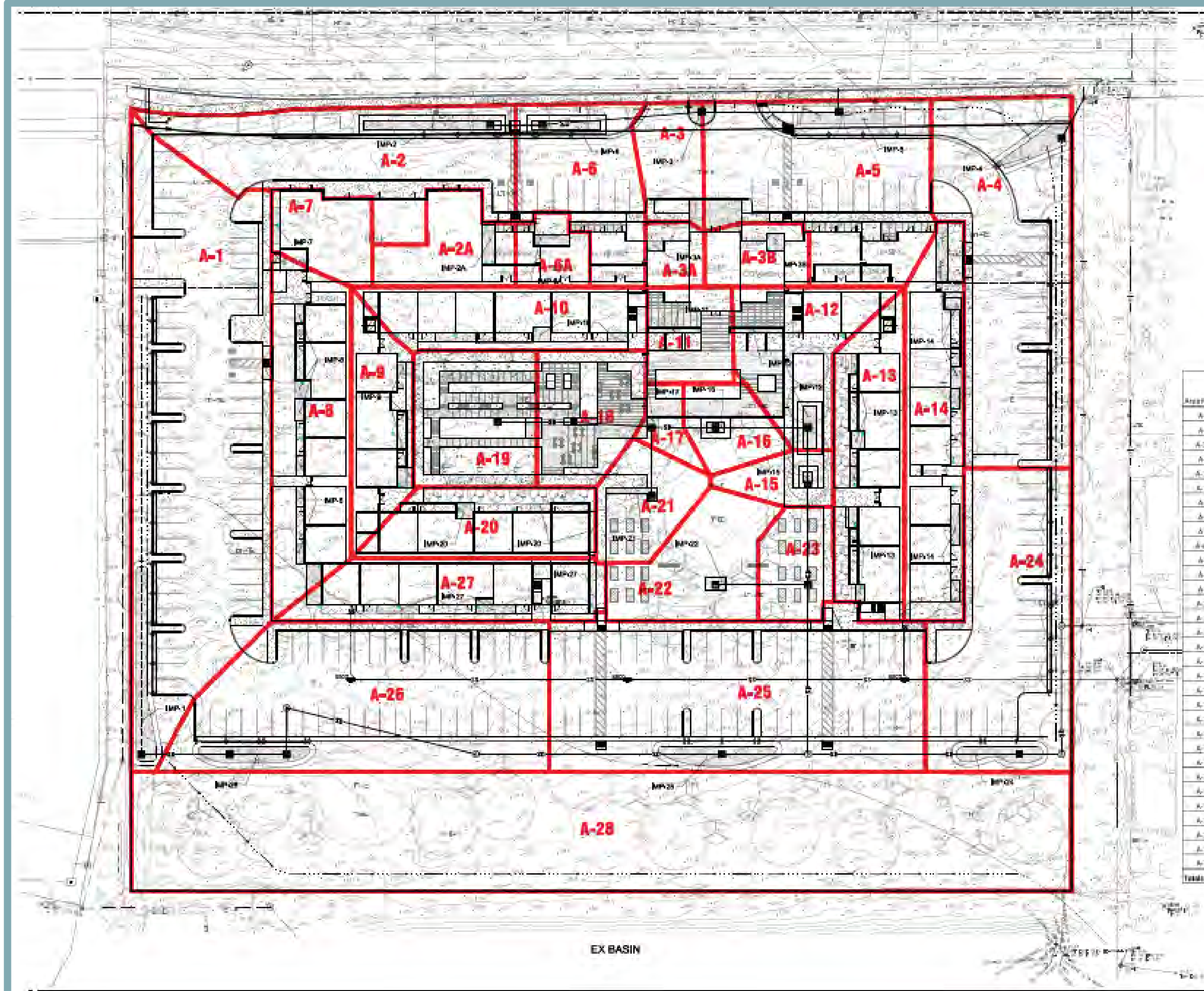
While the proposed project would create new impervious surfaces within the site, the Tracy Subbasin is 345,000 acres in size; therefore, the groundwater basin within which the project site is located would be recharged from many sources over a large area. Additionally, the Tracy Subbasin has been designated as a medium-priority basin by the Department of Water Resources, and is not in overdraft conditions.

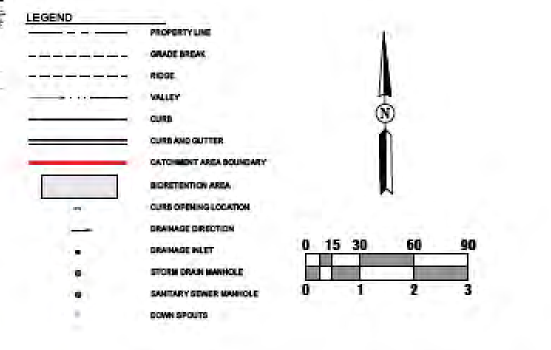
---

21 Wilsey Ham. *Stormwater Control Report for Highridge Costa Development, Twin Oaks Senior Residence.* August 16, 2019.

22 Diablo Water District. *Final 2015 Urban Water Management Plan.* June 2016.

Figure 7
Preliminary Stormwater Control Plan





Area Name	Total Catchment Area (SF)	Pavement Area (SF)	Pavement DMA #	Concrete (Wy/patio) (SF)	Concrete DMA #	Roof Area (SF)	Roof DMA #	Landscape Area (SF)	Landscape #	IMP Size Required (SF)	IMP Size Provided (SF)	IMP #
A-1	25,640	17,302	A-1 AC	1,848	A-1 Conc			5,854	A-1 LS	768	830	IMP1
A-2	33,882	5,427	A-2 AC	1,282	A-2 Conc	865	A-2 Roof	2,310	A-2 LS	308	400	IMP1
A-2A	3,338			68	A-2A Conc	3,399	A-3 Roof		A-2A LS	127	164	IMP2A
A-3	2,422	1,857	A-3 AC	422	A-3 Conc			153	A-3 LS	91	182	IMP3
A-3A	1,298			24	A-3A Conc	903	A-3A Roof	311	A-3A LS	37	57	IMP3A
A-3B	2,196			57	A-3B Conc	1,710	A-3B Roof	320	A-3B LS	71	100	IMP3B
A-4	15,038	7,826	A-4 AC	905	A-4 Conc			5,874	A-4 LS	348	450	IMP4
A-5	12,204	6,447	A-5 AC	1,500	A-5 Conc	2,010	A-5 Roof	1,748	A-5 LS	400	450	IMP5
A-6	8,152	3,320	A-6 AC	257	A-6 Conc	3,000	A-6 Roof	1,408	A-6 LS	333	200	IMP6
A-6A	1,704			58	A-6A Conc	1,237	A-6A Roof	208	A-6A LS	52	132	IMP7
A-7	2,700					2,509	A-7 Roof	170	A-7 LS	100	102	IMP7
A-8	8,486			1,723	A-8 Conc	4,741	A-8 Roof	2,442	A-8 LS	258	280	IMP8
A-9	8,924			788	A-9 Conc	3,230	A-9 Roof	140	A-9 LS	163	165	IMP9
A-10	5,812			808	A-10 Conc	4,349	A-10 Roof	288	A-10 LS	206	267	IMP10
A-11	2,722			1,908	A-11 Conc	399	A-11 Roof	321	A-11 LS	90	95	IMP11
A-12	5,473			2,308	A-12 Conc	2,230	A-12 Roof	848	A-12 LS	174	280	IMP12
A-13	7,557			879	A-13 Conc	4,772	A-13 Roof	1,213	A-13 LS	228	306	IMP13
A-14	7,878			868	A-14 Conc	5,285	A-14 Roof	358	A-14 LS	244	628	IMP14
A-15	1,562			522	A-15 Conc			1,010	A-15 LS	21	30	IMP15
A-16	2,766			685	A-16 Conc			2,016	A-16 LS	27	45	IMP16
A-17	1,125			479	A-17 Conc			621	A-17 LS	19	26	IMP17
A-18	4,536			3,395	A-18 Conc			986	A-18 LS	106	145	IMP18
A-19	5,785			3,480	A-19 Conc			2,156	A-19 LS	138	149	IMP19
A-20	5,157			846	A-20 Conc	3,480	A-20 Roof	863	A-20 LS	165	170	IMP20
A-21	3,273			456	A-21 Conc			2,787	A-21 LS	18	30	IMP21
A-22	5,169							5,147	A-22 LS	–	72	IMP22
A-23	2,779			354	A-23 Conc			2,363	A-23 LS	13	24	IMP23
A-24	19,114	3,910	A-24 AC	950	A-24 Conc			10,056	A-24 LS	347	400	IMP24
A-25	19,608	13,726	A-25 AC	1,895	A-25 Conc			3,890	A-25 LS	498	585	IMP25
A-26	17,671	11,927	A-26 AC	829	A-26 Conc			4,265	A-26 LS	514	550	IMP26
A-27	6,294			1,025	A-27 Conc	4,144	A-27 Roof	315	A-27 LS	207	210	IMP27
A-28	38,378							38,378	A-28 LS	–		IMP28
Totals	258,830	75,863		29,028		46,572		100,502		6,036	7,465	

PRELIMINARY STORMWATER CONTROL PLAN

Therefore, any new impervious surfaces associated with the project would not interfere substantially with groundwater recharge within the Tracy Subbasin. Furthermore, the project site would allow stormwater to percolate and potentially contribute to groundwater recharge. Also, stormwater would be directed into the City's water system and eventually discharged into the Delta which also contributes to groundwater recharge in the region. Based on the above, the project would not result in water quality impacts and, thus, would conflict with or obstruct implementation of a water quality control plan. Therefore, the proposed project would result in a ***less-than-significant*** impact with respect to substantially decreasing groundwater supplies, interfering substantially with groundwater recharge, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

cii,ciii. The proposed project would be considered a C.3 regulated project and is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures. In addition, the project site is within Drainage Area 29C, and would be required to pay the applicable Contra Costa County Flood Control and Water Conservation District (CCCFCWCD) drainage fees.[23]

The SWCP prepared for the proposed project incorporates the most recent Stormwater C.3 Guidebook and Contra Costa Clean Water Program requirements,[24] as well as all applicable City stormwater requirements. As noted in the SWCP, stormwater draining off impervious surfaces such as roofs, parking areas, and drive aisles within the project site would be captured by curb inlets and routed, by way of new storm drains, to bioretention basins located along the perimeter of the parking lots and proposed structure, along Main Street, and within the courtyard. The bioretention basins would include layers of cobbles, soil mix, gravel, and plants to provide for on-site treatment of runoff. The treated stormwater runoff would be conveyed by way of an underground pipes which would direct the runoff to the existing storm drain infrastructure in the project site area. Treated runoff would be routed to existing City storm drain inlet located within Main Street. As noted previously, and as demonstrated in Figure 7 and in the Stormwater Control Report, the bioretention basins have been sized to provide for adequate management of all stormwater runoff.

The Preliminary Drainage Report prepared for the proposed project presents the capacity of the existing drainage system and the projected flow rates for the project.[25] As further discussed in the Preliminary Drainage Report, under normal conditions of all proposed infrastructure will provide for adequate flow velocities, and sufficient storage capacity would exist in the proposed bioretention basins within the project site. The full flow capacity of the system nodes, where proposed infrastructure would connect to, ranges between 3.86 cubic feet per second (cfs) and 17.33 cfs. As shown in the Preliminary Drainage Report, the project flows are not anticipated to exceed the capacity of the existing water system. Therefore, existing infrastructure has adequate capacity to serve the proposed project and implementation of the project would not require any upsizing of off-site infrastructure.

Based on the above, stormwater discharge calculations would be in compliance with the C.3 Standards and implementation of the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flood on-

[23] Contra Costa County Flood Control District. *Contra Costa County Formed Drainage Areas.* February 27, 2008.
[24] Contra Costa County Clean Water Program. *Stormwater C.3 Guidebook.* May 17, 2017.
[25] Wilsey Ham. Preliminary Drainage Report for Highridge Costa Development. August 15, 2019.

or off-site or 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. Therefore, the proposed project would result in a ***less-than-significant*** impact.

civ. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the project site, the project site is located within an Area of Minimal Flood Hazard (Zone X).[26] The site is not classified as a Special Flood Hazard Area or otherwise located within a 100-year or 500-year floodplain. Therefore, development of the proposed project would not impede or redirect flood flows and ***no impact*** would result.

d. As discussed under question 'civ' above, the project site is not located within a flood hazard zone. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project site is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to a large closed body of water. Based on the above, the proposed project would not pose a risk related to the release of pollutants due to project inundation flooding, tsunami, or seiche, and ***no impact*** would occur.

[26] Federal Emergency Management Agency. *Flood Insurance Rate Map 06013C0355G.* Effective March 21, 2017.

XI. LAND USE AND PLANNING. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	✖	☐
b.	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?	☐	☐	✖	☐

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, existing land uses in the project vicinity include single family residences to the north of the site across Main Street, additional single-family residences to the east of the site, senior apartments to the southwest, and the Oakley Town Center shopping center to the west of the site. The area to the south of the site is vacant and undeveloped. The proposed project would offer retail services to the community, as well as affordable housing for senior citizens. The proposed uses would be compatible with the existing development in the project area. Given that the proposed project would involve construction on a currently vacant site, and would not involve any features that would divide an established community, such as a large roadway or walls, the project would not further divide an established community. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. According to the City's General Plan, the project site is designated CO and zoned C. Per Section 9.1.504 of the City's Municipal Code, mixed-use development is permitted within the C zoning designation, subject to approval of a CUP. Therefore, the project would be consistent with the type and intensity of use previously anticipated for the site per the City. In addition, the proposed project would not conflict with city policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, in compliance with Section 9.1.1112 of the City's Municipal Code, the three coast live oak trees located on site would be retained and protected from further damage through implementation of Mitigation Measure IV-6. Furthermore, the project would comply with the regulations and standards of the ECCHCP/NCCP related to the protection of biological resources. Thus, the proposed project would not 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, and thus, a ***less-than-significant*** impact would occur.

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

Discussion

a,b. The City of Oakley General Plan EIR states that the only viable mineral resource currently mined in the City of Oakley is sand. The General Plan does not identify any known mineral resources on the project site and much of the adjacent land is developed with residential and commercial uses. Thus, proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral recovery site. The proposed project would have ***no impact*** to mineral resources.

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

Discussion

The following discussion is based primarily on an Environmental Noise Analysis prepared for the proposed project by Saxelby Acoustics (see Appendix F).[27]

a. The following sections present information regarding sensitive noise receptors in proximity to the project site, the existing noise environment, and the potential for the proposed project to result in impacts during project construction and operation. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.
- Average, or equivalent, sound level (L_{eq}): The L_{eq} corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour).
- Day-Night Average Level (Ldn): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located to the north, across Main Street, and east of the project site.

[27] Saxelby Acoustics. *Environmental Noise Analysis, Twin Oaks Senior Residence IS/MND*. September 4, 2019.

Existing Noise Environment

The existing noise environment in the project vicinity is primarily defined by vehicle traffic on the local roadway network. To quantify the ambient noise environment at the project site, Saxelby Acoustics conducted a continuous (24-hour) noise level measurement at one location on the site and short-term noise level measurements at four additional locations on the site (see Figure 8). Table 6 below provides a summary of the noise measurement results.

Table 6
Summary of Existing Background Noise Measurement Data

Site	Date	L_{dn}	Average Measured Hourly Noise Levels (dB)					
			Daytime (7 AM to 10 PM)			Nighttime (10 PM to 7 AM)		
			L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
LT-1	8/19/19 – 8/20/19	66	63	61	79	59	50	77
ST-1	8/19/19 – 11:33 AM	N/A	56	55	64	N/A	N/A	N/A
ST-2	8/19/19 – 11:46 AM	N/A	59	51	81	N/A	N/A	N/A
ST-3	8/19/19 – 11:59 AM	N/A	49	48	60	N/A	N/A	N/A
ST-4	8/19/19 – 12:12 PM	N/A	59	56	68	N/A	N/A	N/A

Source: Saxelby Acoustics. 2019.

Standards of Significance

The City of Oakley General Plan Noise Element establishes a noise level standard of 60 dB as normally acceptable at residential land uses. The noise level performance standards for transportation noise compatibility are shown in Table 7. Based upon the table, an ambient noise level of 65 dBA L_{dn} is considered normally acceptable for residential uses. Policy 9.1.6 in the City's General Plan considers the following significance criteria for noise impacts:

- Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a 5 dB L_{dn} increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a 3 dB L_{dn} increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise sensitive uses, a 1.5 dB L_{dn} increase in noise levels due to roadway improvement projects will be considered significant.

Per the City's General Plan, with regard to non-transportation noise, exterior noise levels at residences should not exceed 55 dBA during daytime hours (7:00 AM to 10:00 PM) and 45 dBA during nighttime hours (10:00 PM to 7:00 AM).

Impact Analysis

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

Figure 8
Noise Measurement Locations

Source: Saxelby Acoustics, 2019.

Table 7
Maximum Allowable Noise Exposure Transportation Noise Sources

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB[2]
Residential	65	45	--
Transient Lodging	65[3]	45	--
Hospitals, Nursing Homes	65	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	65	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Notes:
1. Where the location of outdoor activity areas is unknown, the exterior noise level standards shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
2. As determined for a typical worst-case hour during periods of use.
3. In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

Source: City of Oakley 2020 General Plan, Table 9-3.

Construction Noise

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as backhoes, dozers, and dump trucks would be used on-site.

Table 8 shows the predicted construction noise levels for development of the proposed project. Based on the table, activities involved in typical construction would generate maximum noise levels up to 90 dB at a distance of 50 feet. While the nearest single-family residence to the east of the site is located within 50 feet of the proposed construction area, most construction would occur within the middle of the site, at a distance greater than 50 feet. It should be noted that construction may occur outside of project site boundaries in development of the proposed roadway connecting the shopping center to the proposed project and the potential EVA which would connect to Edgewood Drive.

Construction activities would be temporary in nature and are anticipated to occur during normal daytime hours. Additionally, construction activities would be shielded by an existing six to seven-foot tall masonry sound wall located between the project site and the nearest noise-sensitive residential receptor.

Table 8
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.

The City of Oakley establishes permissible hours of construction in Section 4.2.208 of the Municipal Code. The ordinance restricts noise-producing construction activities to weekday hours between 7:30 AM and 7:00 PM Monday through Friday, and from 9:00 AM to 7:00 PM on Saturdays and Sundays. During the permissible hours, construction activities are conditionally exempt from the Noise Ordinance Standards.

Although construction activities are temporary in nature and would likely occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the project if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting the 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 could be considered significant.

Project Operational Noise

Operations of the proposed project would generate noise primarily associated with increased traffic on nearby roadways. Project operational noise sources would also be generated from outdoor activities occurring within the courtyard of the affordable housing development. Non-transportation and transportation related noise at sensitive receptors are discussed in further detail below.

Non-Transportation Noise at New Sensitive Receptors

It should be noted that impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required CEQA review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles,* (2011) 201 Cal.App.4th 455, 473 (*Ballona*).) The California Supreme Court recently held that "CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate… is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA

statutes"], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474.). Thus, the analysis of a project's existing noise environment is not required for CEQA purposes but is included in this document for compliance with applicable General Plan standards.

Based upon noise measurements along the west project boundary, the existing retail uses were found to generate noise levels of approximately 49 dBA L_{eq} during daytime hours due to existing air-conditioning equipment. Such noise levels would meet the City of Oakley's 55 dBA L_{eq} exterior noise standard applied to non-transportation noise sources. Because the proposed project would not be exposed to noise levels from non-transportation sources exceeding the City's noise level standards for non-transportation noise sources and a less-than-significant impact related to the 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 would occur.

Transportation Noise at New Sensitive Receptors

As shown in Figure 9, proposed outdoor activity areas (courtyard, pool, and barbecue area) are predicted to be exposed to exterior noise levels of approximately 46 dBA L_{dn}, which would meet the City of Oakley 65 dBA L_{dn} exterior transportation noise level standard.

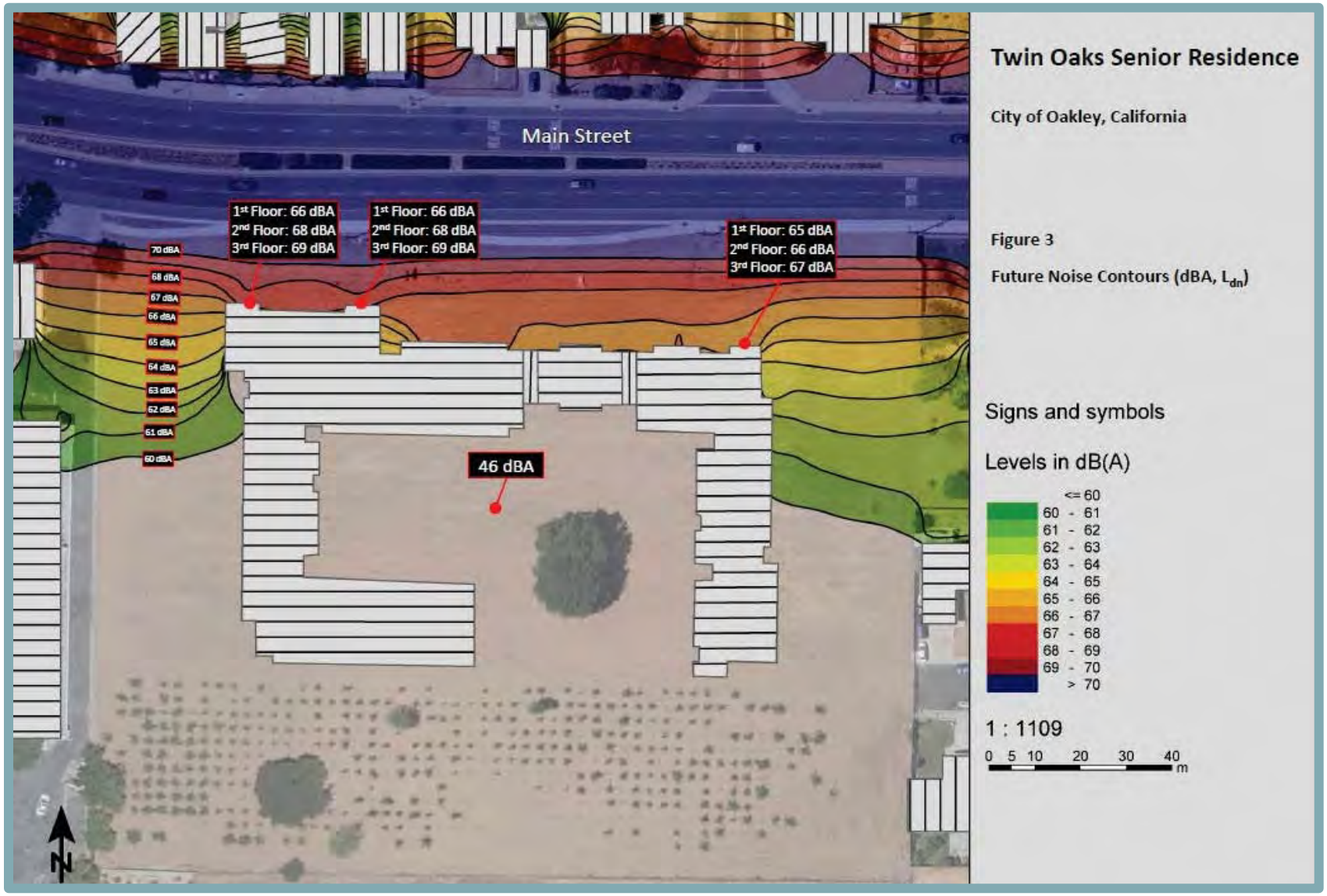
Furthermore, the proposed project is predicted to be exposed to exterior noise levels of up to 69 dBA L_{dn} at the building facades closest to Main Street. Modern building construction typically yields an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70 dBA L_{dn}, or less, additional interior noise control measures are typically not required. For the proposed project, exterior noise levels are predicted to be less than or equal to 69 dBA L_{dn}, resulting in an interior noise level of 44 dBA L_{dn} based on typical building construction.

Thus, noise levels in the interior of the proposed residences would meet the City's 45 dBA L_{dn} interior noise level standard. Impacts associated with the 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 would be less than significant.

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels for existing and future, project and no-project conditions. Have been calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. Traffic volumes were sourced from the Traffic Impact Analysis prepared for the proposed project by TJKM, and truck usage and vehicle speeds were based on field observations.

Traffic noise levels have been predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may not receive full shielding from intervening noise barriers.

Figure 9
Future Noise Contours



Source: Saxelby Acoustics, 2019.

Table 9 summarizes traffic noise levels along each study roadway segment in the project vicinity for the Existing No Project and Existing Plus Project conditions. Background No Project and Background Plus Project conditions are summarized in Table 10.

Table 9
Predicted Traffic Noise Level and Project-Related Traffic Noise Level Increases

Roadway	Segment	Noise Levels at Nearest Sensitive Receptors (L_{dn}, dB)		
		Existing No Project	Existing Plus Project	Change
Main Street	North of Big Break Road	64.7	54.8	0.1
	West of Empire Road	62.7	62.7	0.0
	West of Project Access 1	57.4	57.7	0.3
	West of Project Access 2	61.9	62.2	0.3
	West of Teakwood Drive	66.9	67.0	.01
	West of Vintage Parkway	67.5	67.5	0.0
	East of Vintage Parkway	66.9	67.0	0.1
Oakley Road	West of Empire Avenue	53.9	53.9	0.0
West Cypress Road	West of Empire Avenue	33.5	33.5	0.0
	East of Empire Avenue	64.1	64.1	0.0
Empire Avenue	North of Oakley Road	61.5	61.6	0.1
	North of W. Cypress Road	66.7	66.8	0.1
Vintage Parkway	North of Main Street	56.9	56.9	0.0

Source: Saxelby Acoustics, 2019.

Table 10
Predicted Background Traffic Noise Levels and Background Plus Project Increase

Roadway	Segment	Noise Levels at Nearest Sensitive Receptors (L_{dn}, dB)		
		Cumulative No Project	Cumulative Plus Project	Change
Main Street	North of Big Break Road	67.0	67.0	0.0
	West of Empire Road	64.7	64.7	0.0
	West of Project Access 1	59.8	59.8	0.0
	West of Project Access 2	64.3	64.4	0.1
	West of Teakwood Drive	69.3	69.4	0.1
	West of Vintage Parkway	69.9	70.0	0.1
	East of Vintage Parkway	69.3	69.4	0.1
Oakley Road	West of Empire Avenue	54.8	54.9	0.1
West Cypress Road	West of Empire Avenue	33.5	33.5	0.0
	East of Empire Avenue	66.7	66.7	0.0
Empire Avenue	North of Oakley Road	62.2	62.4	0.2
	North of W. Cypress Road	67.3	67.4	0.1
Vintage Parkway	North of Main Street	57.4	57.4	0.0

Source: Saxelby Acoustics, 2019.

As shown in Table 9 and Table 10, the proposed project is predicted to increase traffic noise levels by a maximum of 0.3 dBA on Main Street, west of both project access points under existing plus project conditions. An increase of 0.3 dBA is below the City's threshold

of 3 dB or 1.5 dB increase above the existing activity area at sensitive receptors, as established by General Plan Policy 9.1.6. Thus, the project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project.

Therefore, for the purposes of the CEQA analysis, the relevant inquiry is not whether the proposed project's future residents would be exposed to preexisting environmental noise-related hazards, but instead whether project-generated noise would exacerbate the pre-existing conditions. Nonetheless, the Environmental Noise Analysis addressed the anticipated transportation noise levels due to traffic noise on Main Street at the proposed residences to determine compliance with applicable standards.

Conclusion

Based on the above, operation of the proposed project would not result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan and the Municipal Code. However, considering the potential for construction activities to result in temporary increases in noise levels in the project area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

XIII-1. *Construction activities shall comply with the Oakley Municipal Code and shall be limited to the hours set forth below:*

Monday-Friday: 7:30 AM to 7:00 PM
Saturdays, Sundays, and holidays: 9:00 AM to 7:00 PM

These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Public Works Department prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.

XIII-2. *Construction activities shall adhere to the requirements of the City of Oakley with respect to hours of operation, muffling of internal combustion engines, and other factors that affect construction noise generation and its effects on noise-sensitive land uses. Prior to issuance of grading permits, these criteria shall be included in the grading plan submitted by the applicant/developer for the review and approval of the Public Works Department.*

XIII-3. *During construction, the applicant/developer shall designate a disturbance coordinator and conspicuously post this person's number around the project site and in adjacent public spaces. The disturbance coordinator shall receive all public complaints about construction noise disturbances and be responsible for determining the cause of the complaint, and*

implement feasible measures to be taken to alleviate the problem. The disturbance coordinator shall report all complaints and corrective measures taken to the Community Development Director. Proof of posting of the disturbance coordinator's contact information shall be submitted to the Community Development Director.

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 11, which was developed by the California Department of Transportation (Caltrans), shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

Table 11
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. Table 12 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed driveways. The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 12
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.031
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Auger/drill Rigs	0.089	0.031
Jackhammer	0.035	0.012
Vibratory Hammer	0.070	0.025
Vibratory Compactor/roller	0.210 (less than 0.20 at 26 feet)	0.074

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

Based on Table 12, construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors that could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located approximately 26 feet, or further, from typical construction activities on the project site. Thus, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

Based on the above, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels and a ***less-than-significant*** impact would occur.

c. The nearest airport to the site is Delta Air Park, located approximately 3.8 miles west of the site. The site is not covered by an existing airport land use plan. Given that the project site is not located within two miles of a public or private airport, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports. Thus, ***no impact*** would occur.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. The proposed project would include the development of 130 multi-family senior units and 5,667 sf of retail space. The project would include 98 one-bedroom units and 32 two-bedroom units. Given that the project would be limited to 2.0 persons per household, the project would generate a maximum of 260 new residents. However, as discussed in Section XVII Utilities and Service Systems, of this IS/MND, adequate utility infrastructure would be available to support the proposed project. In addition, Housing Element (HE) Policy #10.1.2 of the City's General Plan sets the goal of promoting the development of affordable housing located in close proximity to services, shopping, and public transportation. The proposed project would be consistent with HE Policy #10.1.2 as the project would provide both affordable housing and retail uses. Furthermore, the proposed project would be consistent with the General Plan and growth analyzed in the General Plan EIR. As a result, the project would have a ***less-than-significant*** impact with respect to substantial unplanned population growth in an area, either directly or indirectly.

b. The proposed project site is currently vacant and absent of any habitable structures. As such, the proposed project would not displace a substantial number of existing housing or people, necessitating the construction of replacement housing elsewhere. Therefore, **no impact** would occur.

XV. PUBLIC SERVICES.

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

Discussion

a. Fire protection services within the project area are provided by the East Contra Costa Fire Protection District (ECCFPD). A new fire station was built to accommodate increased demand, staffing and equipment in 2010. With the completion of the new fire station the City of Oakley General Plan anticipates fire service to be adequate for buildout of the City. The ECCFPD is a rural funded fire district that protects approximately 249 square miles and over 115,000 residents. The district provides firefighting personnel and emergency medical services with three fire stations. Station 53 is the closest station to the project site, being located approximately 0.85-mile away. The proposed project would be subject to the fire facilities impact fees established by the City of Oakley Municipal Code Section 9.2.502. Payment of the required impact fee would mitigate any potential impacts caused by increased demands on fire services that may result from the proposed project, as well as ensure that the project conforms with the City of Oakley's General Plan Policy 4.4.2. Additionally, the proposed project does not include any alterations to the circulation system of the surrounding area, which could conflict with the City of Oakley's General Plan Policy 4.4.4, or lead to a degradation in response times. Given the payment of fees in accordance with City of Oakley Municipal Code guidelines, the proposed project is not expected to cause significant degradation to response times or service ratios, which would induce the need for physically altered or expanded governmental facilities and the project would, therefore, result in a ***less-than-significant*** impact.

b. Police protection is currently provided to the City of Oakley by the Oakley Police Department and the Contra Costa County Sheriff's Office. The Oakley Police Department currently employs 43 persons, including the Chief of Police, the Lieutenant, six Sergeants, five Detectives, 21 Police Officers, and nine Police Services Assistants.[28] As previously discussed, the proposed project would involve the construction and operation of up to 130 affordable housing units, as well as 5,667 sf of commercial space. With the development of the project site with affordable housing, an increase in demand for police services would occur, because residences typically generate a higher demand for police. However, the proposed project would include a security gate for vehicles which would increase site security. Nevertheless, development fees would be applied to the proposed project, as well as a Police Services levy. Development of the site has been anticipated by the General Plan, and, thus police protection was anticipated as well. The proposed project

[28] City of Oakley Police Department. *2017 Annual Report*. 2017. Available at http://www.ci.oakley.ca.us/wp-content/uploads/2018/04/Annual-Report-2017-2-2.pdf. Accessed September 10, 2019.

would result in a similar increase in demand as anticipated and be subject to fees for public services. Based on the above, the proposed project would not induce the need for physically altered or expanded governmental facilities. Therefore, the proposed project would result in a ***less-than-significant*** impact.

c. The Oakley Union School District and the Antioch Unified School District provide public educational services to the City of Oakley. Given that the project would include development of the project site with affordable housing for senior citizens and 5,667 sf of commercial space, the proposed project would not significantly increase the need for schools in the area. Although the site would be developed with senior affordable housing, the proposed project would still be subject to fee payment. Therefore, the proposed project would result in a ***less-than-significant*** impact regarding an increase in demand for schools.

d,e. The proposed project would result in development of 130 affordable housing units. The City of Oakley Municipal Code 9.2.208 requires 0.01065 acres of parkland per unit in any multi-family developments requiring approvals of subdivisions. The proposed project includes 130 units, which would equate to 1.38 acres of parkland The City of Oakley Municipal Code provides the option for subdivisions within the City to either dedicate land or pay an in-lieu fee to meet the City's parkland requirements; however, developments that do not include subdivisions, such as the proposed project, are not explicitly included in these requirements. The City's Municipal Code states that there is approximately 7.02 acres of parkland dedicated for each 1,000 residents. The addition of 260 new residents would not be anticipated to appreciably affect the City's current resident to parkland ratio, and the City would continue to meet the five acre per 1,000 residents requirement of the Municipal Code. While the proposed project would not include dedication of any on-site parks, the project would include various outdoor spaces and amenities for residents, which are anticipated to meet the demand for parks and outdoor recreation areas of the future residents. Although the project would result in a minor increase in population, the project would not result in a substantial loss of parkland.

Considering the above, the proposed project would not include the dedication of on-site parks, but would provide various on-site amenities that would provide for outdoor activity space. Because the City currently meets the five acre per 1,000 resident standard, the project would provide on-site amenities, and that the project does not include subdivision of land and is not subject to the City's Municipal Code requirements for land dedication in subdivisions, the project would result in a ***less-than-significant*** impact on parks and other public facilities.

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

Discussion

a,b. As discussed in Section XIV, Population & Housing, the proposed project would include 130 senior apartment units, housing a maximum of 260 residents. Thus, an increase in demand on recreational facilities would occur. The City of Oakley Municipal Code, Section 9.2.208, developments that include subdivision of land to either dedicate parkland or pay in-lieu fees. Because the proposed project would not include subdivision of the site, the project is not subject to the City Code requirements for parkland dedication or fee payment. Nevertheless, the proposed project includes various outdoor amenities and activity spaces that are anticipated to meet the need for recreation facilities of the future residents. Considering that the demand for recreation facilities would be met by on-site amenities, the project would not substantially impact recreational facilities. Thus, the proposed project would result in a ***less-than-significant*** impact on recreation.

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

Discussion

a. The following discussion is based primarily on a Traffic Impact Analysis (TIA) prepared for the proposed project by TJKM (see Appendix G).[29] The TIA evaluated the potential transportation impacts that could result from the proposed project, short- and long-term multi-modal circulation needs where relevant to site access and/or project impacts, potential mitigation measures for any significant transportation impacts, and the adequacy of the proposed site plan for accommodating multi-modal site access and meeting City of Oakley Guidelines.

Study Intersections

As part of the TIA, TJKM evaluated transportation conditions at the following eight study intersections (see Figure 10):

3. Main Street/Big Break Road;
5. Main Street/Empire Avenue;
6. Main Street/Vintage Parkway;
14. Empire Avenue/Oakley Road;
15. Empire Avenue/W. Cypress Road;
100. Main Street/Teakwood Drive (not included in Citywide model);
101. Main Street/Proposed Project Access 1 (new intersection); and
102. Main Street/Proposed Project Access 2 (new intersection).

TJKM evaluated transportation conditions at all six of the existing intersections and both of the proposed new intersections that would serve the project site. Transportation conditions were assessed during the AM (7:00 AM - 9:00 AM) and PM (4:00 PM - 6:00 PM) peak periods for a typical weekday with clear weather. The study intersections were selected in consultation with City staff based on the anticipated trip generation and travel pattern for project trips.

[29] TJKM. *Senior Housing Apartments at 2605 Main Street, Traffic Impact Analysis.* June 4, 2019.

Figure 10
Study Intersection Locations

Source: TJKM, 2019.

Study Scenarios

Conditions at each intersection were analyzed under the following scenarios:

- **Existing Conditions** – Describes existing transportation conditions in the study area based on the current roadway and sidewalk network characteristics, transit service, field observations, and intersection counts conducted on May 2, 2019;
- **Existing Plus Project Conditions** – Similar to Existing Conditions, but with the net new trips that would be generated by the project;
- **Background Conditions** – Describes the projected peak hour traffic operations based on the net change to travel patterns anticipated from approved (but not yet constructed) or fully/partially occupied developments in the City at the time of the Existing Conditions assessment. The analysis includes additional trips that would be generated if the proposed developments were to operate at full occupancy. The Background Conditions scenario was developed using the 2019 Citywide Vistro Model;
- **Background Plus Project Conditions** – Similar to Background Conditions, but with the inclusion of vehicle trips that would be generated by the project. The Background Plus Project Conditions analysis provides an assessment of project impacts that takes into account other projects that would be completed within a similar timeframe as the project.

It should be noted that cumulative impacts associated with buildout of the General Plan were previously analyzed in the General Plan EIR. The General Plan EIR concluded that cumulative transportation impacts at the study intersections to be less-than-significant. Given that the proposed project is consistent with the General Plan, the project would not result in additional cumulatively significant impacts at the study intersections.

Thresholds of Significance

Operations at each of the study intersections were evaluated based on Level of Service (LOS), a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes conditions in terms of speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The operational levels of service are given letter designations from A to F, with A representing the best operating conditions and F representing the worst conditions. Table 13 provides descriptions of various LOS and the corresponding ranges of delay.

Per the City of Oakley General Plan, LOS D or a volume-to-capacity (V/C) ratio of 0.90 are the thresholds of acceptability for signalized intersections. Any signalized intersection operating worse than LOS D would be considered inconsistent with the standard. In the City of Oakley, Main Street is considered a Route of Regional Significance and falls under standards defined in the East County Action Plan Final 2000 Update. In the East County Action Plan, Main Street is required to meet a Transportation Service Objective (TSO) of LOS D or better at signalized intersections and LOS E or better at unsignalized intersections. Within the TIA, the study intersections were analyzed using HCM 6th Edition Methodology as per the City's guidance. Average control delay is reported in seconds per vehicle for signalized and all-way-stop-control intersections and critical delay for minor approaches is reported for two-way-stop-control intersections. Signalized intersections or unsignalized intersection operating worse than LOS D are considered inconsistent with the City's standard, with the exception of unsignalized intersections on Main Street where

operations are only considered inconsistent with the City's standards should operations degrade beyond LOS E. At already unacceptably operating intersections, a project constitutes a significant impact if intersection delay increases by five seconds under Existing Plus Project Conditions or Background Plus Project Conditions.

Table 13
Signalized Intersection LOS Criteria

LOS	Description	Signalized Intersection Delay (D) (seconds)	Unsignalized Intersection Delay (D) (seconds)
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.	0 ≤ D ≤ 10	0 ≤ D ≤ 10
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.	10 < D ≤ 20	10 < D ≤ 15
C	Control delay greater than 20 and up to 35 seconds per vehicle. Fair progression or longer cycle lengths, or both cause higher delays. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	20 < D ≤ 35	15 < D ≤ 25
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35 < D ≤ 55	25 < D ≤ 35
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.	55 < D ≤ 80	35 < D ≤ 50
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.	80 < D	50 > D

Source: TJKM, 2019.

Project Trip Generation and Distribution

Project vehicle trip generation rates were obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). Based on the ITE rates, the proposed project is estimated to generate 660 daily vehicle trips, including 31 AM peak hour and 47 PM peak hour trips (see Table 14).

Table 14
Project Vehicle Trip Generation

Land Use (ITE Code)	Size	Daily Vehicle Trips		AM Peak Hour Vehicle Trips				PM Peak hour Vehicle Trips			
		Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total
Senior Adult Housing (252)[1]	130 units	3.70	481	0.20	9	17	26	0.26	19	15	34
Shopping Center (820)[2]	4.743 ksf	37.75	179	0.94	3	2	5	3.81	9	10	19
Retail Pass-by Trip Reduction (34%)[3]									-3	-3	-6
Total			**660**		**12**	**19**	**31**		**25**	**22**	**47**

Notes:
1 Senior Adult Housing (ITE Land Use Code 252) vehicle trip rates are based upon number of dwelling units.
2 Shopping Center (ITE Land Use Code 820) vehicle trip rates are based upon number of thousand square feet gross leasable area.
3 TJKM applied a p.m. peak hour pass-by reduction rate of 34 percent for Retail land use consistent with ITE recommended average rates.

Source: TJKM, May 2019.

The distribution of peak hour vehicle trips generated by the project was determined based on the methodology used for the Citywide Traffic Model. Figure 11 illustrates the distribution of project trips on the study intersections and nearby roadway segments.

Existing Plus Project Conditions

Based on the addition of project trips to each study intersection, Table 15 summarizes the peak hour LOS at the study intersections under Existing Conditions without the proposed project and Existing Plus Project conditions.

As shown in Table 15, all the study intersections would operate at an acceptable LOS under Existing Plus Project Conditions. Thus, implementation of the proposed project would not exceed the City's thresholds for intersection operations, and, thus, would not create a conflict with an adopted plan related to the City's circulation system.

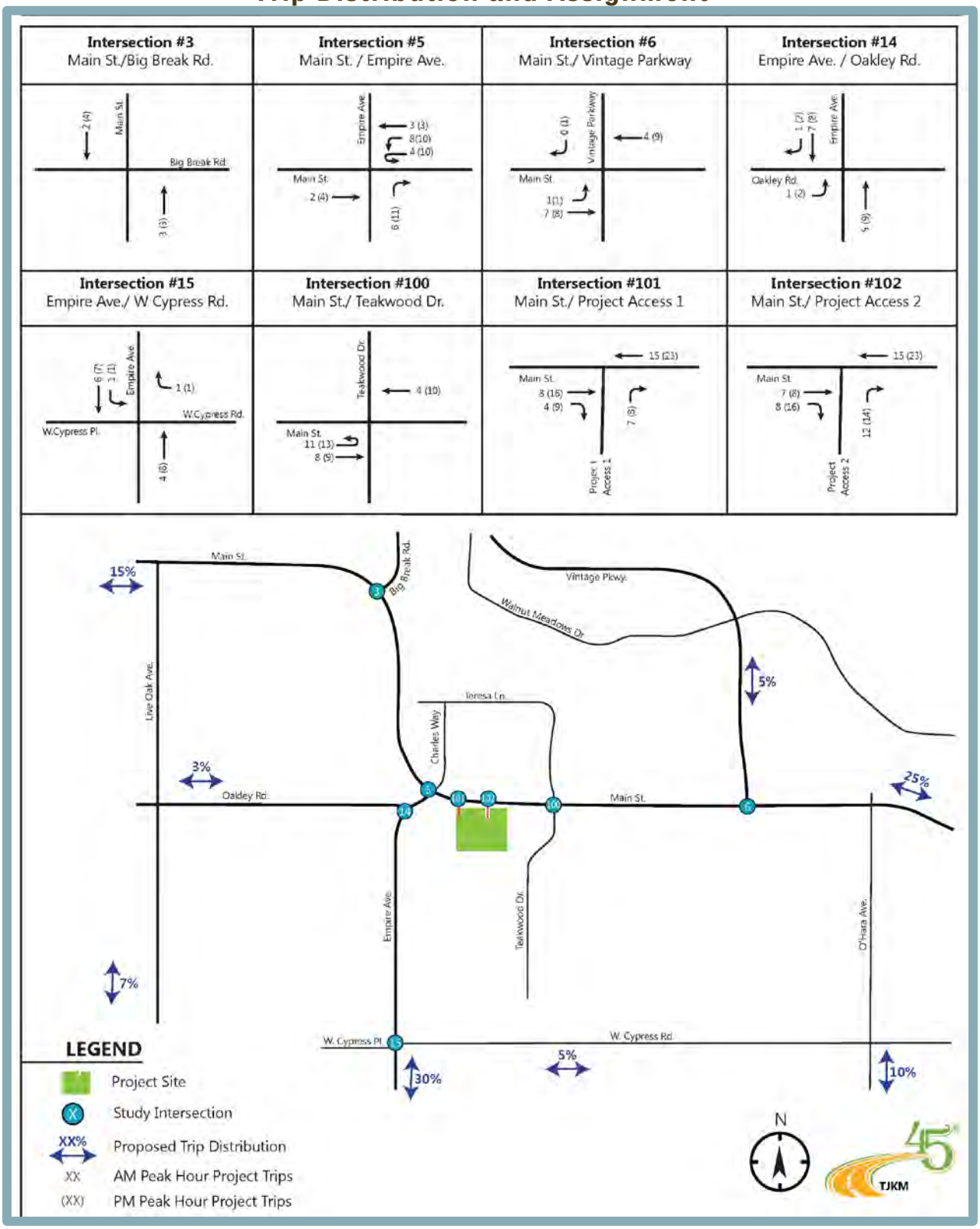
Background Plus Project Conditions

Table 16 summarizes the peak hour LOS at study intersections under Background and Background Plus Project Conditions. As shown in the table, six of the study intersections would operate at an acceptable LOS under Background Plus Project Conditions. However, the following two intersections would operate unacceptably under both Background and Background Plus Project Conditions:

6. Main Street/Vintage Parkway (LOS F, AM and PM peak hours);
15. Empire Avenue/W. Cypress Road (LOS E, AM peak hour).

While Intersections #6 and #15 would operate unacceptably, the increase in vehicle delay occurring as a result of the proposed project would not exceed the City's five-second increase threshold. Thus, implementation of the proposed project would not exceed the City's thresholds for intersection operations, and, thus, would not create a conflict with an adopted plan related to the City's circulation system.

Figure 11
Trip Distribution and Assignment



Source: TJKM, 2019.

Table 15
Existing Plus Project Conditions Intersection LOS

Intersection	Control	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
			Delay[1]	LOS	Delay[1]	LOS
3. Main Street/Big Break Road	Signalized	AM	15.9	B	15.9	B
		PM	16.9	B	16.9	B
5. Main Street/Empire Avenue	Signalized	AM	35.7	D	38.6	D
		PM	26.4	C	27.7	C
6. Main Street/Vintage Parkway	Signalized	AM	41.9	D	42.1	D
		PM	31.9	C	32.1	C
14. Empire Avenue/Oakley Road	Signalized	AM	22.9	C	22.7	C
		PM	29.6	C	29.4	C
15. Empire Avenue/W. Cypress Road	Signalized	AM	22.3	C	22.4	C
		PM	16.5	B	16.5	B
100. Main Street/Teakwood Drive	Signalized	AM	8.7	A	8.8	A
		PM	7.6	A	7.7	A
101. Main Street/Proposed Project Access 1	Side-Street Stop	AM	N/A	N/A	10.5	B
		PM	N/A	N/A	12.3	B
102. Main Street/Proposed Project Access 2	Side-Street Stop	AM	N/A	N/A	10.5	B
		PM	N/A	N/A	12.3	B

[1] Delay: Average control delay in seconds per vehicle. Reported values are overall for signalized and all-way-stop-control intersections and critical minor approaches for two-way-stop-control intersections

Source: TJKM, May 2019.

Table 16
Background Plus Project Conditions: Intersection LOS

Intersection	Control	Peak Hour	Background Conditions		Background Plus Project Conditions	
			Delay[1]	LOS	Delay[1]	LOS
3. Main Street/Big Break Road	Signalized	AM	19.1	B	19.2	B
		PM	24.9	C	25.0	C
5. Main Street/Empire Avenue	Signalized	AM	43.3	D	46.3	D
		PM	46.7	D	51.6	D
6. Main Street/Vintage Parkway	Signalized	AM	**>100.0**	**F**	**>100.0**	**F**
		PM	**>100.0**	**F**	**>100.0**	**F**
14. Empire Avenue/Oakley Road	Signalized	AM	22.6	C	22.5	C
		PM	29.7	C	29.5	C
15. Empire Avenue/W. Cypress Road	Signalized	AM	**67.7**	**E**	**68.1**	**E**
		PM	45.2	D	45.5	D
100. Main Street/Teakwood Drive	Signalized	AM	10.0	B	10.3	B
		PM	9.4	A	9.7	A
101. Main Street/Proposed Project Access 1	Side-Street Stop	AM	-	-	11.7	B
		PM	-	-	17.4	C
102. Main Street/Proposed Project Access 2	Side-Street Stop	AM	-	-	11.8	B
		PM	-	-	17.6	C

Note: **Bold** text indicates unacceptable intersection operations.
[1] Delay: Average control delay in seconds per vehicle. Reported values are overall for signalized and all-way-stop-control intersections and critical minor approaches for two-way-stop-control intersections

Source: TJKM, May 2019.

Pedestrian, Bicycle, and Transit Facilities

The proposed project's potential impacts related to pedestrian, bicycle, and transit facilities are discussed below.

Pedestrian Facilities

Within the vicinity of the project site, continuous sidewalks are provided on both sides of Main Street, Empire Avenue, and Teakwood Drive. Further from the project site, roadways such as W. Cypress Road, Vintage Parkway, and O'Hara Avenue provide continuous sidewalks on one or both sides of the roadway, and intermittent sidewalks are provided on Oakley Road, Live Oak Avenue, Big Break Road, and Main Street. Sidewalks are currently provided on the project frontage bordering Main Street. The existing pedestrian facilities in the study area are shown in Figure 12 below.

With implementation of the proposed project, sidewalks along the project site frontage would be retained. New walkways and pedestrian crossings would be provided throughout the project site to provide continuous pedestrian connectivity between the proposed buildings, parking areas, Main Street sidewalks, and the Oakley Town Center shopping center to the west of the site. In addition, a system of decomposed granite pedestrian trails would be provided within the southern portion of the project site.

Considering the above, the proposed project would not result in the creation of a conflict with any adopted programs, plans, ordinances, or policies addressing pedestrian facilities and a less-than-significant impact would occur related to pedestrian facilities.

Bicycle Facilities

Currently, Class II bike lanes are provided on both sides of Vintage Parkway and W. Cypress Road. A Class III Bike Route is provided on both sides of Empire Avenue, between Main Street and Laurel Road. The existing bicycle facilities in the study area are shown in Figure 12. In addition, while not shown in the figure, a Class II bike lane is currently provided along the south side of Main Street in the vicinity of the project site. The City of Oakley General Plan, City of Oakley Parks, Recreation, and Trails Master Plan, and the Contra Costa County Bicycle and Pedestrian Plan propose that several new bicycle facilities be constructed in the future.

Future residents of the proposed project would have convenient access to the existing bicycle facilities in the project area, including the bike lanes along the project frontage at Main Street. The project would not conflict with any existing or planned bicycle facilities.

Considering the above, the proposed project would not result in the creation of a conflict with any adopted programs, plans, ordinances, or policies addressing bicycle facilities and a less-than-significant impact would occur related to bicycle facilities.

Transit Facilities

Eastern Contra Costa Transit Authority (Tri Delta Transit) provides transit service in eastern Contra Costa County, serving the communities of Oakley, Brentwood, Antioch, Concord, Discovery Bay, Bay Point, and Pittsburg. Four routes operate in the vicinity of the project site, as follows:

Figure 12
Existing Pedestrian and Bicycle Facilities

Source: TJKM, 2019.

- *Route 300,* the Pittsburg BART/Brentwood Park & Ride route, is a weekday express route connecting Brentwood to the Pittsburg/Bay Point BART station via Oakley and Antioch. Route 300 travels along Main Street, operating from 4:15 AM to approximately 10:00 PM with 15- to 30-minute headways.
- *Route 383,* the Oakley/Antioch/Freedom High School route, connects Oakley to Antioch and Freedom High School in Oakley. Route 383, in both clockwise and counterclockwise directions, provides only weekday service. The counterclockwise route runs with approximate one-hour headways, and the clockwise route runs twice during the AM peak hour period only.
- *Route 391,* the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekday service to most East County cities. Route 391 operates from 4:00 AM to 1:15 AM with 30 to 60-minute headways.
- *Route 393*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekend service to Route 391. Route 393 operates from 5:20 AM to 2:00 AM with approximately 60-minute headways.

Near the project site, the nearest bus stops are located at the intersection of Main Street/Empire Avenue, approximately 300 feet west of the project site, and Main Street/Teakwood Drive, 0.2-mile east of the project site. Both transit stops are within walking distance of the project site. Therefore, future residents, workers, and patrons at the proposed project would have access to transit services. The project would not conflict with any existing or planned transit facilities. Thus, the proposed project would not conflict with a program, plan, ordinance, or policy addressing transit service and a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Thus, a ***less-than-significant*** impact would occur.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of vehicle miles traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. While a qualitative discussion of VMT has been provided below, the provisions of Section 15064.3 apply only prospectively; determination of impacts based on VTM is not required Statewide until July 1, 2020.

Per Section 15064.3(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving.

As noted in question 'a' above, the project site would be served by the Tri-Delta Transit system, with bus stops provided approximately 300 feet west of the project site and 0.2-mile east of the project site. In addition, the site would connect with existing bicycle and pedestrian facilities located in the immediate project vicinity. At the western site boundary, the project would include reciprocal access with the existing Oakley Town Center shopping center. New on-site retail uses would be provided in the northwestern portion of

the project site. By providing pedestrian connectivity between the proposed residential units, the on-site retail uses, and existing off-site commercial uses, the VMT associated with the proposed project would be minimized. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***less-than-significant*** impact would occur.

c,d. Vehicles would have access to/from the project site by way of a proposed project access on Main Street, as well as a second access connecting to the existing shopping center to the west of the site. The driveways would connect to a U-shaped drive aisle extending around the perimeter of the project site. The proposed driveways and drive aisles within the project site would be sufficiently sized to accommodate EVA throughout the site. In addition, the proposed project includes a potential dedicated EVA at the eastern site boundary.

The TIA prepared for the project included a Sight Distance Analysis, as well as a site access and on-site circulation evaluation. Based on the TIA, oncoming traffic travelling eastbound on Main Street would have a clear line of sight to vehicles exiting the driveway well beyond the minimum stopping distance. Similarly, vehicles exiting the driveway would have a clear line of sight to vehicles travelling eastbound on Main Street well beyond the minimum stopping distance. Thus, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses, or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

XVIII. TRIBAL CULTURAL RESOURCES. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, 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:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	☐	☐	✖	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	✖	☐

Discussion

a,b. In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed by the City to those Native American tribes who have previously requested notification under AB 52 of projects within the City subject to CEQA. The letters were distributed on August 12, 2019 and the City did not receive any responses within the mandatory 30-day response period for consultation under AB 52/Public Resources Code Section 21080.3.1(b).

Based on a record search of the Native American Heritage Commission (NAHC) Sacred Land files, known tribal resources do not exist for the project area or adjacent lands. Thus, the potential for unrecorded Native American resources to exist within the project site is relatively low based on the disturbed nature of the site. Implementation of Mitigation Measures V-1 and V-2, described in detail in Section V, Cultural Resources, would reduce any potential impacts related to unknown resources to less-than-significant levels.

Given that the project would be required to comply with the City's standard conditions of approval regarding cultural resources, as well as mitigation measures in Section V, construction of the proposed project would not result in a substantial adverse change in the significance of a tribal cultural resource. Per Public Resource Code sections 5020.1(k) and 5024.1, the project site is not listed as a historical resource nor does the site contain any known resources with significance to a California Native American tribe. Thus, the proposed project would have a ***less-than-significant*** impact related to tribal cultural resources.

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

Discussion

a-c. Water service for the proposed project would be provided by the DWD. DWD's primary water supply for distribution is treated surface water from the Bureau of Reclamations purchased from the Contra Costa Water District. According to the DWD Final 2015 Urban Water Management Plan (UWMP), the DWD has a baseline per capita demand of 177 gallons.[30] The proposed project would develop 130 one-bedroom and two-bedroom affordable housing units for senior citizens. Given that the project would limit up to 2.0 persons per unit, the project would add a maximum of 260 residents to the area. Thus, the project is projected to use 46,020 gallons per day, or 51.54 acre-feet per year. The 2015 UWMP indicates that total water supply in the City is anticipated to increase from 16,830 acre-feet in 2020 to 20,411 acre-feet in 2040. The UWMP water supply projections account for existing water use, as well as planned growth within the City limits. Given the relatively small increase and anticipated water surplus by 2020, adequate long-term water supply exists.

Sanitary sewer services are provided to the project site by ISD. The wastewater system is composed of collection, treatment, and effluent recycling facilities. The District operates and maintains the sewer system, which collects wastewater flows from individual developments within the City and conveys them to the District's Water Recycling Facility. Wastewater is ultimately treated and stored either on-site in a large 76 million gallon holding pond or the wastewater is conveyed to an outfall pipe in the San Joaquin River. The Water Recycling Facility has an average daily flow of 2.3 million gallons per day

[30] Diablo Water District. *Final 2015 Urban Water Management Plan* [pg. 3-5]. June 2016.

(mgd). The facility has a treatment capacity of approximately 4.3 mgd. Using standard industry assumptions that (1) domestic water use represents 40 percent of consumption; and (2) wastewater generation represents 90 percent of domestic water use, the proposed project would generate 41,418 gallons of effluent on a daily basis. Thus, the addition of wastewater from the project would represent less two percent of the available capacity. Given the available capacity within the wastewater facility and the small generation of wastewater, the project would not result in inadequate capacity to serve the project's projected demand in addition to the existing commitments. Furthermore, the project would include connection of a new sewer line within the project site to the City's existing infrastructure located in the southeast corner of the site.

Stormwater generated by impervious surfaces would be collected by a series of new drain inlets, by way of drainage pipes sized at approximately 12-inches. Stormwater runoff would then be directed to the various bioretention basins located throughout the project site. As discussed above in Section X, Hydrology, of this IS, the basins would be constructed and sized to meet C.3 standards and properly treat stormwater runoff.

Furthermore, electricity, natural gas, and telecommunications utilities would be provided by way of connections to existing infrastructure located within the immediate project vicinity. Therefore, the project would result in a ***less-than-significant*** impact related to 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.

d,e. Solid waste, recyclable materials, and compostable material collection within the City of Oakley is hauled to Potrero Hills Landfill located in Solano County to the north of the City. The landfill has a maximum permitted throughput of 4,330 tons per day. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Potrero Hills Landfill has a remaining capacity of 13,872,000 cubic yards out of a total permitted capacity of 83,100,000 cubic yards, or 83 percent of the landfill's remaining capacity.[31] Due to the substantial amount of available capacity remaining at Potrero Hills Landfill, sufficient capacity would be available to accommodate the project's solid waste disposal needs. Therefore, a ***less-than-significant*** impact related to solid waste would occur as a result of the proposed project.

[31] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Potrero Hill Landfill (48-AA-0075)*. Available at: https://www2.calrecycle.ca.gov/swfacilities/Directory/48-AA-0075/. Accessed September 10, 2019.

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

Discussion

a-d. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a Very High or High FHSZ.[32] In addition, the project site is surrounded by urban development characterized by residential and commercial uses and is not subject to risks related to wildfires. Thus, the proposed project would not result in substantial risks or hazards related to wildfires, and a ***less-than-significant*** impact would occur.

[32] California Department of Forestry and Fire Protection. *Contra Costa County, Fire Hazard Severity Zones in SRA*. November 7, 2009.

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

Discussion

a. As discussed in Section IV, Biological Resources, of this IS/MND, while a limited potential exists for western burrowing owl, Swainson's hawk, white-tailed kite, nesting raptors and migratory birds, and bat species protected by the MBTA to occur on-site, Mitigation Measures IV-1 through IV-5 would ensure that any impacts related to special-status species would be reduced to a less-than-significant level. Furthermore, the proposed project would retain three protected trees and remove the remaining five trees on the project site. Mitigation Measures IV-6 would ensure preservation of the protected trees.

In addition, the project site does not contain any on-site structures or known historic or prehistoric resources. Implementation of the proposed project is not anticipated to have the potential to result in impacts related to historic or prehistoric resources. Nevertheless, Mitigation Measures V-1 and V-2 would ensure that in the event that prehistoric resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

Considering the above, the proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, a ***less-than-significant*** impact would occur.

b. The proposed project, in conjunction with other development within the City of Oakley, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through

compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

All cumulative impacts related to air quality, noise, and transportation are either less than significant after mitigation or less than significant and do not require mitigation. Given the scope of the project, any incremental effects would not be considerable relative to the effects of all past, current, and probably future projects. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts, and the project's incremental contribution to cumulative impacts would be ***less than significant***.

c. As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in Section III, Air Quality, Section VII, Geology and Soils, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this IS/MND, with the proposed project would not cause substantial effects to human beings, including effects related to exposure to air pollutants, hazardous materials, and noise. Therefore, the proposed project would result in a ***less-than-significant*** impact.