DRAFT

Vacaville Center Biotechnology and Science Building
Mitigated Negative Declaration

Prepared for:

Solano Community College District
360 Campus Lane, Suite 203
Fairfield, California 94534
Contact: Ines Zildzic

Prepared by:

DUDEK
980 Ninth Street, Suite 1750
Sacramento, California 95814
Contact: Brian Grattidge

APRIL 2015

Printed on 30% post-consumer recycled material.

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

Page No.

APPENDICES

FIGURES

TABLES

TABLE OF CONTENTS (CONTINUED)

Page No.

INTENTIONALLY LEFT BLANK

1 INTRODUCTION

1.1 Project Overview

The Vacaville Center opened in 2010 as an extension of the District's main campus in Fairfield. The Center currently serves approximately 2000 students. SCCD estimates that student growth will occur at rate of 1% district-wide (SCCD 2014).

The proposed project is the construction of a new Biotechnology and Science Building. The one story 31,943 square-foot building would include academic laboratory and lecture spaces, offices, and student support services. The project would include the construction and/or relocation of utilities connections and landscaping.

1.2 California Environmental Quality Act Compliance

This initial study has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.).

1.3 Public Review Process

This initial study has been prepared in support of a proposed Mitigated Negative Declaration (MND). The MND is subject to a 30-day public review period. Approval of the MND will be considered at a public hearing of the Solano Community College District Governing Board. The public is encouraged to provide written comments during the 30-day review, and/or attend the Board hearing.

INTENTIONALLY LEFT BLANK

2 SUMMARY OF FINDINGS

2.1 Environmental Factors Potentially Affected

This initial study considers the environmental issues identified in Appendix G of the CEQA Guidelines.

2.2 Environmental Determination

The lead agency finds that the initial study identifies potentially significant effects, but that revisions to the project (including revisions required by mitigation measures included in this Initial Study) would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur. There is no substantial evidence that the project as revised would have a significant effect on the environment.

Table 1-1
Mitigation Summary

Number	Measure
BIO-1	If construction is to occur during the nesting season (between February 1 and August 30 of each year), the project applicant shall provide for a pre-construction survey for tree-nesting and ground-nesting birds to be completed by a qualified biologist no more than 2 weeks prior to the start of construction. The survey shall include areas within 500 feet of the proposed disturbance (demolition, grading, and/or vegetation removal). Active raptor nests located within 300 feet of the project will be mapped. A determination will be made by a qualified biologist, in coordination with the California Department of Fish and Wildlife (CDFW), as to whether or not construction work would affect the active nest or disrupt reproductive behavior. Criteria used for this evaluation will include, but not be limited to, presence of visual screening between the nest and construction activities, and behavior of adult raptors in response to the surveyors or other ambient human activity. Alternatively, other appropriate avoidance measures approved by CDFW may be implemented to ensure that the nest is protected. If it is determined that construction will not affect an active nest or disrupt breeding behavior, construction may proceed without any restriction or mitigation measure. If it is determined that construction will affect an active raptor nest or disrupt reproductive behavior, then avoidance is the only mitigation available. Construction will not be permitted within 500 feet of such a nest until a qualified biologist determines that the subject nests are no longer active.
CUL-1	Should archaeological or paleontological material be identified in the area during earth-moving activities, work should be temporary halted in the vicinity, and the City consulted. A qualified archaeologist (or paleontologist) will be assigned to review the unanticipated find, and evaluation efforts of this resource for CRHR listing will be initiated in consultation with the City. Should human remains be discovered, work will halt in that area and procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5) will be followed, beginning with notification to the City and County Coroner. If Native American remains are present, the County Coroner will contact the Native American Heritage Commission to designate a Most Likely Descendent, who will arrange for the dignified disposition and treatment of the remains.
GEO-1	Construction shall be required to comply with the recommendations of the geotechnical report related to special construction measures to be implemented when building on expansive soils. These measures may include

Table 1-1
Mitigation Summary

Number	Measure
	construction of interior pad areas and exterior flatwork with granular materials or lime treatment of native soils. "Geotechnical report" refers to the Geotechnical Engineering Report, Solano Community College-Vacaville Campus prepared by Wallace Kuhl and Associates, 2006, or a newer geotechnical report that supersedes this report.
NOI-1	To avoid disruption to nearby residents, construction activities shall be limited to daytime hours between 7 AM to 7 PM Monday through Saturday. No exterior construction activities shall be permitted on Sundays.
TRA-1	I-505 Southbound Ramps/Vaca Valley Parkway is an unsignalized intersection that operates unacceptably in the AM and PM peak hours under Existing Conditions and Existing with Phase 1 Conditions. The intersection also meets the Peak Hour signal warrant in the AM and PM peak hours under Existing Conditions and Existing with Phase 1 Conditions. The mitigation measure is to fund (on a fair share basis) construction of the following improvements at the intersection: • Signalize intersection (westbound left turn protected phase), signal coordinated with East Monte Vista Avenue-Crocker Drive/Vaca Valley Parkway signal • Southbound approach: 1 left turn pocket (150 feet length), 1 through-right turn shared lane • Westbound approach: 1 left turn pocket (150 feet length), 1 through lane • Eastbound approach: 1 through lane, 1 right-turn lane Since the intersection operates unacceptably under Existing Conditions and meets the Peak Hour signal warrant under Existing Conditions, the District shall pay a fair share contribution towards the construction of a signal and other improvements at the intersection. Alternatively, improvements may be funded through payment into the City's Development Impact Fee (DIF) program. Constructing these improvements would result in acceptable traffic operations (LOS C or better) at the intersection (8 seconds of delay in the AM peak hour, 12 seconds of delay in the PM peak hour). It should also be noted that these mitigation measures will not preclude implementation of the Cumulative year I-505/Vaca Valley Parkway overcrossing improvements.
TRA-2	I-505 Northbound Ramps/Vaca Valley Parkway and New Horizons Way-North Village Parkway/Vaca Valley Parkway are signalized intersections that operate unacceptably before the addition of project trips under Cumulative with Phase 1 Conditions. The mitigation measures proposed below operate as a system, and should be implemented together as one package. • New Horizons Way-North Village Parkway/Vaca Valley Parkway o Add new third westbound lane from Akerly Drive/Vaca Valley Parkway to New Horizons Way-North Village Parkway/Vaca Valley Parkway o Stripe westbound approach as 1 left turn lane, 2 through lanes and 1 through-right turn shared lane o Restripe southbound approach to 2 left turn lanes and 1 through-right turn shared lane o Restripe northbound approach to 2 left turn lanes and 1 through-right turn shared lane • I-505 Northbound Ramps/Vaca Valley Parkway o Carry new third westbound lane from New Horizons Way-North Village Parkway/Vaca Valley Parkway to I-505 Northbound Ramps/Vaca Valley Parkway o Stripe westbound approach to 2 through lanes and 1 right turn only lane Since the two intersections along Vaca Valley Parkway operate deficiently before project trips are added, the project shall pay a fair share percentage of construction costs for improvements at New Horizons Way-North Village Parkway/Vaca Valley Parkway and I-505 Northbound Ramps/Vaca Valley Parkway. Alternatively, improvements may be funded through payment into the City's Development Impact Fee (DIF) program.

Table 1-1
Mitigation Summary

Number	Measure
	New Horizons Way-North Village Parkway/Vaca Valley Parkway would operate at 46 seconds of delay (LOS D); the operations are improved over Cumulative without Project Conditions, so the impact has been reduced to less than significant with mitigation. I-505 Northbound Ramps/Vaca Valley Parkway would operate at 40 seconds of delay (LOS D); the operations are improved over Cumulative without Project Conditions, so the impact has been reduced to less than significant with mitigation.
TRA-3	North Village Parkway/Vacaville Campus Main Driveways is a side-street stop-controlled intersection that operates acceptably before the addition of project trips under Cumulative with Phase 1 Conditions; the intersection does not meet signal warrants under Cumulative without Project or Cumulative with Phase 1 Conditions. The mitigation measure for this impact consists of the following items: • Monitor intersection operations at North Village Parkway/Vacaville Campus Main Driveways every five (5) years after occupancy of Phase 1. Monitoring consists of collecting new intersection turning movement counts and intersection LOS analysis using state-of-the-practice analysis methods. • If intersection operations degrade to an unacceptable level, construct one of the following improvements: o If signal warrants are not met, roundabout or all-way stop-control o If signal warrants are met, signalize or roundabout The District shall fully sponsor improvements related to mitigating the impact at the North Village Parkway/Vacaville Campus Main Driveways intersection as the intersection operated acceptably before the addition of project trips. Implementation of these improvements results in North Village Parkway/Vacaville Campus Main Driveways operating at 9 seconds of delay (LOS A) with a one lane roundabout or 13 seconds of delay (LOS B) with all-way stop-control. Signalizing the intersection would result in low levels of delay. The mitigation measures would result in the impact being reduced to less than significant with mitigation.
TRA-4	Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway is a signalized intersection that operates unacceptably before the addition of project trips under Cumulative with Phase 2 Conditions. The mitigation measure for this intersection is to add right turn overlap phases for the westbound right turn movement and northbound right turn movement. The project shall pay a fair share contribution towards the modification of the signals for the overlap phases. Alternatively, the improvements may be funded through payment into the City's Development Impact Fee (DIF) program. Implementing these improvements results in the intersection operating at 59 seconds of delay (LOS E); the operations are improved over Cumulative without Project Conditions, so the impact has been reduced to less than significant with mitigation.
TRA-5	The District shall install a crosswalk and appropriate warning signage to facilitate pedestrians crossing the north leg of the intersection at North Village Parkway/Vacaville Campus Main Driveways. The District shall coordinate with the City of Vacaville to install the crosswalk prior to the start of classes at the Biotechnology and Science Building.

INTENTIONALLY LEFT BLANK

3 INITIAL STUDY CHECKLIST

1. Project title:

Vacaville Center Biotechnology and Science Building

2. Lead agency and project sponsor name and address:

Solano Community College District
360 Campus Lane, Suite 203
Fairfield, California 94534

3. Contact person and phone number:

Ines Zildzic
707.863.7189

4. Project location:

The Vacaville Center is an extension of the Solano Community College District's (SCCD) main campus in Fairfield (see Figure 1). The Center is located at the northeast corner of Vacaville Center Parkway and North Village Parkway, 2001 N Village Pkwy, Vacaville, CA 95688. The SCCD property is comprised of five parcels totaling approximately 54 acres (Assessor's Parcel Nos. 133-030-13, -14, -15, -16, -17). The site is partially developed and includes an existing 36,359-square-foot classroom building with associated parking and landscaping.

5. General plan designation:

The project site is designated Public/Institutional.

6. Zoning:

The project site is zoned Community Facilities. The City's Municipal Code (Section 14.09.100.010) defines a community facility as "a structure or a use, which is owned, managed, or maintained by a government entity for the purpose of providing services or benefit to the public, and may include facilities leased, operated, owned, or planned to be owned by private parties as part of a public facility." This includes public colleges and vocational schools.

7. Description of project:

The proposed project includes the construction of a proposed Biotechnology and Science Building and other building related site improvements at the Solano Community College District (SCCD) Vacaville Center campus. The project components include the following items:

- Construction of a Biotechnology and Science Building. The building is a 1-story, 31,943 square foot (SF) building that includes academic laboratory and lecture spaces, offices, and student support services;
- New utilities and connections, and minor relocation of existing utilities as needed; and
- Installation of new landscaping.

The existing campus and the proposed improvements are further described below.

SCCD

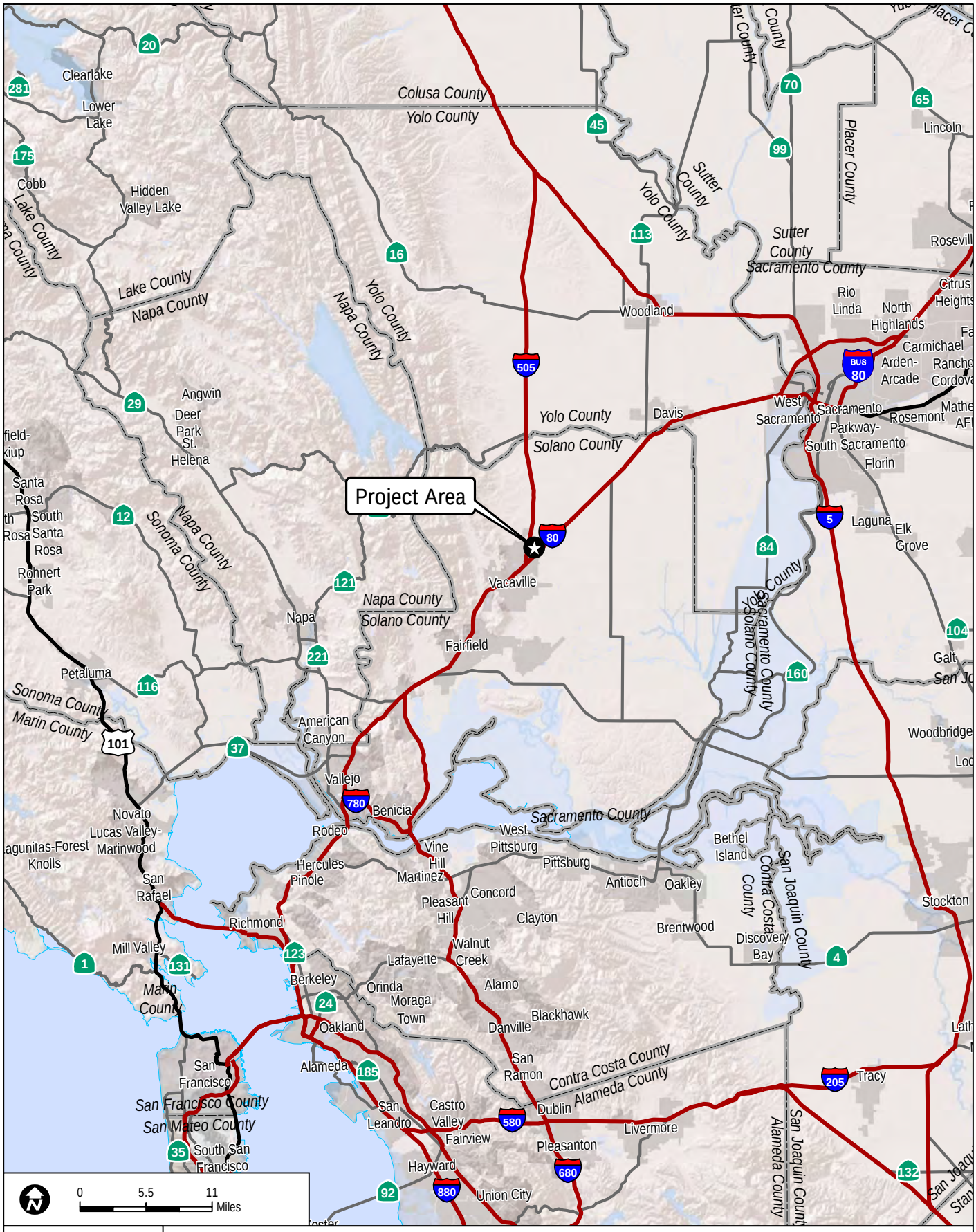
Solano Community College was founded in 1945 as part of the Vallejo Unified School District. In 1965, Solano County voters approved the development of a community college district, and two years later approved a bond to build SCCD's main Fairfield campus. Expansion of SCC continued with a 2002 voter-approved bond (Measure G), which funded construction of two permanent centers in Vacaville and Vallejo (SCCD, 2014).

SCCD serves approximately 9,700 students (as of Fall 2013) across its campus and centers at Fairfield, Vacaville, Vallejo, and Travis Air force Base. SCCD's service area includes 95% of Solano County residents as well as Winters, in neighboring Yolo County (SCCD, 2014).

Vacaville Center

The Vacaville Center opened in 2010 as an extension of the SCCD's main campus in Fairfield. The Center currently serves approximately 2000 students. SCCD estimates that student growth will occur at rate of 1% district-wide (SCCD, 2014).

The Center is located at the northeast corner of Vacaville Center Parkway and North Village Parkway (see Figure 2). The SCCD property is approximately 54 acres, excluding streets. The property is comprised of five parcels (Assessor's Parcel Nos. 133-030-13; 133-180-13, -14, -15, -16, -17). The site is only partially developed, and includes an existing 36,359-SF classroom building with associated parking and landscaping.



DUDEK

8583

FIGURE 1

Regional Map

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

DUDEK

8583

SOURCE: Google Imagery, 2015.

FIGURE 2
Vicinity Map

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

SCCD also recently completed the purchase of the property on the west side of North Village Parkway. This property is approximately 4.32 acres (Assessor's Parcel No. 133-190-520) and includes an existing classroom building and associated parking and landscaping. This building is referred to as Vacaville Workforce Development (Vacaville Annex) and is 16,500 SFT.

Biotechnology Building

The proposed Biotechnology and Science Building is a one-story 31,943 gross SF building. The building would be located to the north of the existing classroom (see Figure 3). The following facilities (totaling 20,000 SF of occupied space) would be housed in the building:

- Biotechnology Lab and supporting spaces (8,000 SF)
- Anatomy Lab and support spaces (2,000 SF)
- Chemistry Lab and supporting spaces (2,00 SF)
- Biology Labs and supporting spaces (4,000)
- Offices (5 at 120 SF each)
- Student Support, including tutoring area, office suite, and café (2,500 SF)

The project would include connections to existing utilities (sewer, storm drain) and some minor relocation of existing utilities. A new joint trench will be required from North Village Parkway into the campus to provide primary and secondary electric service, gas and communication to the new building. The proposed building would be served by a new domestic water and fire water line. Approximately 400 linear feet of 6-inch sewer line would be connected to the existing 6 inch sewer line on site. The proposed building would connect to the existing storm drain system. The existing storm drain system transports runoff from the developed area via a 24-inch storm drain, which then daylights south of the existing Vacaville Center Building. The water then connects via surface flow, to the City storm drain system in Vaca Valley Parkway to the south, and Crescent Drive to the east.

Approximately 40,000 SF of new landscaping would be installed near the proposed building, including additional pedestrian areas and outdoor space. The proposed project would not change site access, internal vehicular circulation, or parking.

Future Phases

Future Measure Q bond releases would fund additional construction at the Vacaville Center. A 22,000 SF Student Success Center/Library Resource Center building would be constructed east of the existing classroom. A new classroom building would be

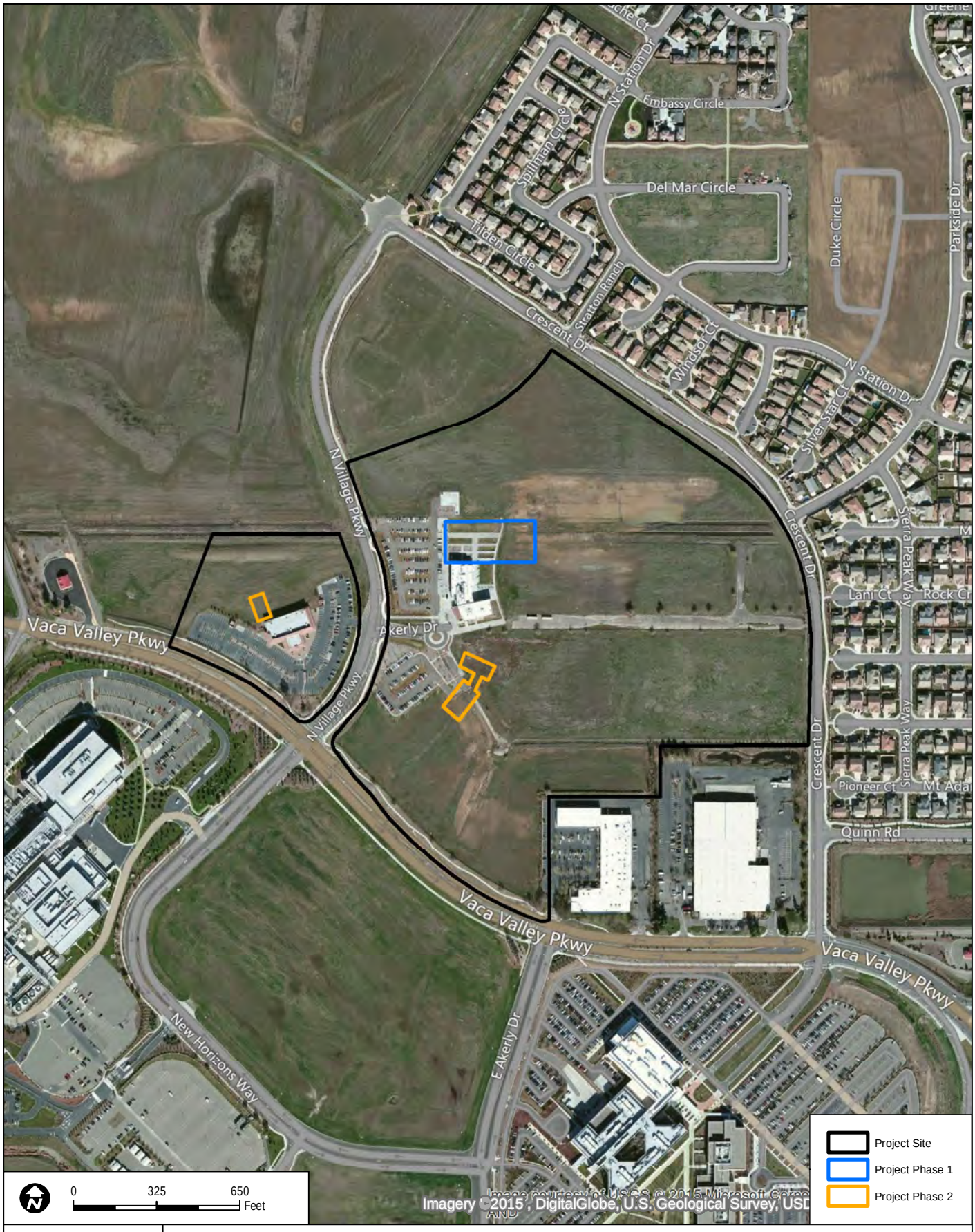
constructed near the existing Workforce Development (Vacaville Annex) building on the west side of North Village Parkway. This building would be approximately 8,000, and would be served by existing utilities and parking.

8. Surrounding land uses and setting (Briefly describe the project's surroundings):

The project site is located between Interstate 80 and Interstate 505, approximately a half a mile from each freeway. The project site is immediately adjacent to the existing classroom building at the Center, northeast of the Genentech campus, and northwest of the Kaiser Permanente campus. The SCCD parcels are west of existing residential development in Vacaville's North Village Planning Area.

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

The project would be designed, funded, and built by SCCD. Improvements within the public right-of-way, including traffic mitigation measures at the site access on N. Village Parkway, would require an encroachment permit from the City of Vacaville.



DUDEK

8583

SOURCE: Google Imagery, 2015; Fehr & Peers, 2015.

FIGURE 3
Site Plan

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ 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 and Traffic	☐ Utilities and Service Systems	☐ Mandatory Findings of Significance

Vacaville Center Biotechnology and Science Building
Mitigated Negative Declaration

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

Signature	Date
Signature	Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated

or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a. The significance criteria or threshold, if any, used to evaluate each question; and
   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project**:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site that 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 for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
X. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC – Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to 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, 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)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.1 Aesthetics

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

Views of the Vaca Mountains and nearby hills are considered scenic vistas in Vacaville (City of Vacaville General Plan and ECAS Draft EIR, 2013). The Coast Range runs from north to south along the western edge of Vacaville. As further discussed in item (c), below, the proposed biotechnology would add an additional manmade structure within existing views of the Vaca Mountains. The visual change, given the distance from receptors and the existing structures, would not have a substantial adverse effect (less than significant).

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

The project site is not visible from a state scenic highway. However, the Solano County General Plan designates the lengths of Interstate 80 and Interstate 505 within the County as scenic roadways. The project site is located between I-80 and I-505. Existing development precludes views of the project site from I-80. Views of the project from I-505 would be limited, as the project would be located approximately half a mile from the roadway, and most of the potential viewers would drive by the project site at high speeds. The existing view of the project site and surrounding uses from I-505 consists of vacant grazing land and commercial office complexes. The project would not affect a scenic resource within the viewshed of the highways. The primary scenic view from the highways is of the Vaca Mountains. As further discussed below, this view would not be substantially affected by the project. Therefore, the project would have a less-than-significant impact on scenic resources within a state scenic highway.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The existing visual character of the site consists of administrative and classroom buildings and associated landscaping. Potential viewers of the proposed project include students and employees of SCC, travelers along the roadways adjacent to the project site, and residents in the neighborhood to the east of the project site (see Figures 4a and 4b). Of these viewers, the residences along Crescent Drive would be the most sensitive to visual changes to the project site. These viewers possess views of the Vaca Mountains to the west, which, as discussed under item (a), are identified as a scenic vista. These views currently consist of urban business park development in the midground (including the existing Vacaville Center buildings), with distinct views of the Vaca Mountain range in the background (see Figure 4b). The proposed biotechnology building would construct an additional manmade structure in the midground of these views. While the building would detract from the intactness of the existing views of the Vaca Mountains, the project would not block views of the ridgeline, which is the defining feature of the view from Crescent Drive. In addition, the project would be in keeping with the character of other buildings within the midground. The project would not significantly decrease the quality of the existing sensitive views from Crescent Drive.

While students and employees of Vacaville Center would notice a change in the campus, the biotechnology building would be in keeping with the existing mass and architectural style of existing campus buildings. Views from within the campus are generally limited to existing campus buildings, the adjacent residential neighborhood, and open space adjacent to the right-of-way (see Figures 4a and 4b).

Views from the west of the project site (facing east) include existing Vacaville Center campus buildings, residences along Crescent Drive, and other business park development. There are no sensitive viewsheds identified to the east of the project site and few sensitive viewers to the west of the project site (see a discussion of travelers along I-505 under item (b) above).

The proposed project would have a less-than-significant impact on the visual character or quality of the project site and its surroundings.

Proposed Building Site (looking NE from existing building)

Existing Vacaville Center Building (west elevation)

DUDEK

8583

FIGURE 4A

Site Photographs

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

Vacaville Center Campus (looking south from north parking lot)

View of Vacaville Center from Crescent Drive (looking west)

INTENTIONALLY LEFT BLANK

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

The proposed project does not include the installation of outdoor lighting except what is necessary to safely light building entrances and adjoining pedestrian walkways. The proposed project would comply with the SCCD Facilities Master Plan (FMP), which states that exterior lighting must meet LEED uplight and trespass requirements to increase night sky views (SCCD 2014). The SCCD property is adjacent to residential uses, but as the project site is on the opposite (west) end of the property from the residential boundary, and additional lighting would be minor (no additional parking lights, for example), additional light sources would not affect residential areas.

3.2 Agriculture and Forestry Resources

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

The project would be located on Urban and Built-Up Land, per the FMMP (California Department of Conservation, 2011). The project would not convert farmland to non-agricultural use.

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

The project site is designated in the General Plan for Public/Institutional uses and is zoned Community Facilities. The proposed project would not change the designated zoning.

The project would not conflict with a Williamson Act contract (California Department of Conservation, 2013).

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

The project site is designated in the General Plan for Public/Institutional uses and is zoned Community Facilities. The proposed project would not change the designated zoning.

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

The project site does not contain forestland (see Appendix B, Biological Resources). In addition to the developed area of the existing campus, the site is primarily comprised of ruderal/disturbed habitat (non-native grasslands), with some ornamental trees and drainage ditches. Therefore, the project would have no impact on forestland.

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

The project would not result in indirect or direct loss of forestry resources. The project site is located in the vicinity of grazing land as designated on the FMMP map for Solano County (California Department of Conservation, 2011). However, the project and the future buildout of two additional classroom buildings would not impact the potential for nearby land to support grazing. Therefore, the project would have no impact on forestry or agricultural resources.

3.3 Air Quality

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

The proposed project is located in Solano County within the Sacramento Valley Air Basin (SVAB). The emissions that would result from construction and operation of the proposed project are subject to the rules and regulations of the Yolo-Solano Air Quality Management District (YSAQMD). The YSAQMD is responsible for developing and implementing the clean air plans for attainment and maintenance of the national and California ambient air quality standards in the SVAB. Attainment plans must be prepared for a specific air pollutant when a region is designated as being in non-attainment with the standards for that pollutant. These attainment plans, which are also referred to as State Implementation Plans (SIPs) with respect to attainment of the National Ambient Air Quality Standards (NAAQS), are submitted to the California Air Resources Board (CARB) for approval. Once approved by CARB, the plans are then submitted to the EPA for approval (YSAQMD 2010). As discussed below, within the project area there are two air quality attainment plans – one for ozone (O_3) and one for particulate matter equal to or less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$).

Applicable Air Quality Plans

Ozone Attainment and Reasonable Further Progress Plan: The greater Sacramento metropolitan area, including the portion of Solano County within the SVAB, is designated as nonattainment areas for the NAAQS for 8-hour ozone. The nonattainment area, which is referred to as the Sacramento Federal Nonattainment Area (SFNA) for ozone, consists of all of Yolo and Sacramento counties, the eastern portion of Solano County, the southern portion of Sutter County, and the portions of Placer and El Dorado counties outside of the Lake Tahoe Air Basin. To meet federal planning requirements, the YSAQMD, in conjunction with other air districts in the SFNA for ozone, has contributed to the 2009 Sacramento Regional 8-hour Ozone Attainment and Reasonable Further Progress Plan (Revision) that is pending approval from EPA and CARB. This plan documents that the region is meeting requirements of the Clean Air Act for the 1997 8-hour ozone standard including meeting minimum emission reduction progress and is expected to reach attainment with the air quality standard no later than 2018. Additionally, in 2006 the YSAQMD submitted the Reasonably Available Control Technology SIP that demonstrates that the YSAQMD's current rules meet the Reasonable Available Control Technology requirements for all sources subject to Control Technique Guidelines and all major non-Control Technique Guidelines sources in accordance with the EPA's Final Rule to Implement the 8-Hour Ozone NAAQS.

Particulate Matter Attainment Plan: Solano County is also designated unclassified for state standards for PM_{10} and $PM_{2.5}$, unclassified for federal PM_{10} standards, and nonattainment for federal $PM_{2.5}$ standards. The central and eastern portions of the county, including Vacaville, are included in the SFNA for fine particulate pollution. In order to demonstrate attainment of the 24-hour fine particulate standard, an area must meet the standard during three consecutive years. The Sacramento region was able to show that the standard had been achieved during the 2010-2012 period. The YSAQMD and the other air districts of the region subsequently submitted a request to the U.S. EPA for a re-designation to attainment of the standard. The districts also developed and submitted a "clean data finding" and a maintenance plan to EPA. The clean data finding demonstrates that the standard has been met during a given three-year period, and the maintenance plan demonstrates how the standard will continue to be met in future year and the YSAQMD is also in the process of completing the attainment plan for the 24-hour NAAQS for particulate matter.

Triennial Assessment and Plan Update: State law also requires annual and triennial progress reports regarding progress and control measures for bringing the subject area into attainment with the federal NAAQS and state California Ambient Air Quality

Standards (CAAQS). In 2010, CARB approved the YSAQMD's updated Triennial Assessment and Plan Update that documents the progress YSAQMD has made towards improving the air quality in its jurisdiction since its 2003 Triennial Plan.

The YSAQMD does not regulate motor vehicle emissions within the SVAB; however, the air quality attainment plans account for on-road mobile emissions and other emissions associated with mobile sources in its emission inventory. The emission inventory is an assessment of ozone precursor emission sources and an estimate of these precursor emissions including volatile organic compounds (VOCs, also referred to as reactive organic gases or ROGs) and oxides of nitrogen (NO_x). Mobile sources are responsible for the majority of ozone precursors emitted in the SFNA, and the associated emissions are directly related to the regional population and total vehicle miles traveled (YSAQMD 2010). The plans outline strategies to reduce mobile emissions through mobile source control measures (e.g., incentive programs), transportation and land use programs and projects, and transportation control measures including collaborative programs between the Yolo County Transportation District, Solano Transportation Authority, and Sacramento Area Council of Governments.

A project could conflict with these plans if it would result in a level of development and mobile source emissions greater than the development and motor vehicle emissions anticipated in these plans. Should this conflict occur, a project may contribute to a potentially significant cumulative impact on air quality.

The proposed project would not change the land use designation or use of the project site, which is currently designated as Institutional/Public Facilities and supports the existing Solano Community College Vacaville Center. While the project would increase and intensify the educational use of the site, buildout of the Vacaville Center campus is anticipated in the regional development and air quality management plans. The project would be consistent with existing and planned educational uses of the site and would not conflict with or propose to change existing land uses or conflict with applicable policies in the City of Vacaville's General Plan. The proposed project is consistent with the emissions estimates in the air quality attainment plans described above. As a result, the project would have no impacts related to conflicts with applicable air quality plans or potential obstruction of air quality plan implementation.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The proposed project is located in Solano County within the SVAB. As discussed above, the EPA has designated Solano County as nonattainment for federal $PM_{2.5}$ standards and

for the 8-hour ozone and unclassified for federal PM_{10} standards. CARB has designated the Solano County portion of the SVAB as unclassified for state standards for PM_{10} and $PM_{2.5}$. CARB has also designated the SVAB as a nonattainment area for the 1-hour and 8-hour ozone CAAQS and 24-hour and annual PM_{10} CAAQS. Solano County is designated as unclassified or attainment for all other criteria air pollutants. Table 3.3-1 summarizes Solano County's attainment status.

Table 3.3-1
Solano County (SVAB) Attainment Status

Pollutant	Averaging Time/Standard	Designation/Classification
National[a]		
O_3	8-hour (1997) – 0.08 parts per million (ppm) 8-hour (2008) – 0.075 ppm	Nonattainment (Severe 15) Nonattainment (Severe 15)
NO_2	Annual arithmetic mean – 0.053 ppm	Attainment
CO	1-hour – 35 ppm, 8-hour – 9 ppm	Attainment
SO_2	Annual arithmetic mean – 0.03 ppm 24-hour – 0.14 ppm	Attainment Attainment
PM_{10}	24-hour – 150 micrograms per cubic meter (µg/m^3)	Unclassifiable
$PM_{2.5}$	24-hour – 12.0 µg/m^3 Annual arithmetic mean (2006) – 35 µg/m^3	Unclassifiable
Lead	Calendar quarter – 1.5 µg/m^3	Attainment
State[b]		
O_3	1-hour – 0.09 ppm 8-hour – 0.070 ppm	Nonattainment[1]
NO_2	24-hour – 0.18 ppm Annual arithmetic mean – 0.030 ppm	Attainment
CO	1-hour – 20 ppm 8-hour – 9 ppm	Attainment
SO_2	1-hour – 0.25 ppm 24-hour – 0.04 ppm	Attainment
PM_{10}	24-hour – 20 µg/m^3, Annual arithmetic mean - 50 µg/m^3	Nonattainment
$PM_{2.5}$	Annual arithmetic mean – 12 µg/m^3	Unclassified
Lead	30-day average – 1.5 µg/m^3	Attainment
Sulfates (SO_4)	24-hour	Attainment
Hydrogen sulfide (H_2S)	1-hour	Unclassified
Vinyl chloride[2]	24-hour	Unclassified
Visibility-reducing particles	8-hour (10:00 a.m.–6:00 p.m.)	Unclassified

Sources: [a] EPA 2012; [b] CARB 2012.
Notes:
1 CARB has not issued area classification based on the new state 8-hour standard. The previous classification for the 1-hour O_3 standard was serious.
2 CARB has identified lead and vinyl chloride as toxic air contaminants (TACs) but has not established a threshold level of exposure for adverse health effects.

The YSAQMD has established project-level quantitative thresholds for determining the significance of both construction and operational impacts. For CEQA purposes, project-related air quality impacts estimated in this environmental analysis would be considered significant if

any of the applicable significance thresholds presented in Table 3.3-2, YSAQMD Air Quality Significance Thresholds, are exceeded during construction or operation.

Table 3.3-2
YSAQMD Air Quality Significance Thresholds

Pollutant	Threshold
ROG	10 tons/year
NO_x	10 tons/year
CO	Violation of a state ambient air quality standard[1]
SO_x	N/A
PM_{10}	80 pounds/day
$PM_{2.5}$	N/A

Source: YSAQMD 2007.
Note:
1 This threshold is applied to projects that generate large numbers of motor vehicle trips that would contribute to congestion at local intersections.

Project Impacts

The proposed project consists of two phases – Phase 1 involves construction of a 31,943 square-foot Biotechnology and Science Building and Phase 2 includes a 22,000 square-foot Student Success Center and an 8,000 square-foot classroom building. Phase 1 is expected to be constructed in the near-term, while Phase 2 is expected to be constructed as funding from previously approved bond measures become available. Operational emissions from Phase 2 are included in this analysis to support evaluation of cumulative impacts. For this analysis, Phase 2 is assumed to be operational starting in 2035. As construction would not occur in an overlapping year (and is unlikely to occur within the same five year period), Phase 2 is not considered for purposes of cumulative construction impacts.

Construction Emissions

Construction of the proposed project would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site personal vehicles and trucks hauling construction materials. NO_x and CO emissions would result primarily from the use of construction equipment and motor vehicles. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

Construction is expected to include the following activities: site preparation, grading, trenching, paving, building construction, and architectural coatings (painting). Construction is assumed to require approximately 7 months to complete. The construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2, available online (http://www.caleemod.com).

Table 3.3-3, Biotechnology and Science Building Construction Emissions, presents the estimated maximum unmitigated daily and annual emissions generated during project construction. To determine whether a significant impact would occur, the daily PM_{10} emissions and the annual ROG and NOx emissions are compared to the YSAQMD significance threshold; the emissions of other pollutants are presented for full disclosure.

Table 3.3-3
Biotechnology and Science Building Construction Emissions
(unmitigated)

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions (lbs/day)	97.44	25.90	18.16	0.03	19.89	5.14
Annual Emissions (tons/year)	0.45	1.44	1.10	0.00016	1.04	0.19
YSAQMD Threshold	10 tons/year	10 tons/year	N/A	N/A	80 lbs/day	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: See Appendix A for detailed results.

Table 3.3-3 shows that the daily PM10 emissions and the annual ROG and NOx emissions will remain below the YSAQMD criteria air pollutant thresholds. Therefore, impacts during construction of the Biotechnology and Science Building and associated site improvements would be less than significant.

Operational Emissions

Project operation would generate long-term pollutant emissions primarily associated with the vehicle trips to and from the facility. Energy consumption within the building, generation of solid waste and wastewater (and subsequent disposal or treatment of the waste) as well as landscape and building maintenance activities would also contribute to local and regional air pollutant emissions. These emissions were also estimated using CalEEMod, and the results are provided in Table 3.3-4 Biotechnology and Science Building Operation Emissions. To determine whether a significant impact would occur, the daily PM_{10} emissions and the annual ROG and NOx emissions are compared to the YSAQMD significance threshold; the emissions of other pollutants are presented for full disclosure.

Table 3.3-4
Biotechnology and Science Building Operation Emissions
(unmitigated)

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions (lbs/day)	7.36	16.99	68.65	0.13	8.03	2.31
Annual Emissions (tons/year)	1.00	2.50	9.65	0.017	1.07	0.31
YSAQMD Threshold	10 tons/year	10 tons/year	N/A	N/A	80 lbs/day	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: See Appendix A for detailed results.

Table 3.3-4 shows that the daily PM10 emissions and the annual ROG and NOx emissions will remain below the YSAQMD criteria air pollutant thresholds. Therefore, impacts during operation of the Biotechnology and Science Building and associated site improvements would be less than significant.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

As summarized above in Table 3.3-1, Solano County is designated as nonattainment for federal $PM_{2.5}$ standards and for the 8-hour ozone and unclassified for federal PM_{10} standards. CARB has designated the Solano County portion of the SVAB as unclassified for state standards for PM_{10} and $PM_{2.5}$. CARB has also designated the SVAB as a nonattainment area for the 1-hour and 8-hour ozone CAAQS and 24-hour and annual PM_{10} CAAQS. Solano County is designated as unclassified or attainment for all other criteria air pollutants. Table 3.3-1 summarizes Solano County's attainment status.

To support the region in developing a SIP for attainment with ozone standards, an emission inventory that assesses ozone precursor emission sources in the region and estimates the associated precursor emissions including ROGs and NO_x. Mobile sources are responsible for the majority of ozone precursors emitted in the SFNA and associated emissions are directly related to the regional population and total vehicle miles traveled (YSAQMD 2010b). Projects that emit these pollutants or their precursors potentially contribute to poor air quality. As discussed above, the construction and operational emissions from the proposed project would not exceed the YSAQMD significant thresholds. In addition, operational emissions from anticipated future development at the Vacaville Center campus were estimated using CalEEMod for the purposes of this cumulative impact analysis. Table 3.3-5 presents the daily and annual emissions

associated with operation of the future 22,000 square-foot Student Success Center and an 8,000 square-foot classroom building, and provides the total emissions associated with the site for the year 2035. Table 3.3-5 also compares the cumulative operational emissions with the YSAQMD significance thresholds to identify whether the project would result in a cumulatively considerable net increase of ozone or PM10.

Table 3.3-5
Vacaville Center Year 2035 Operational Emissions
(unmitigated)

		ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions (lbs/day)	Phase 1	7.36	16.99	68.65	0.13	8.03	2.31
	Phase 2	4.32	7.78	36.68	0.13	7.53	2.15
	Total	*11.68*	*24.77*	*105.33*	*0.26*	*15.56*	*4.46*
Annual Emissions (tons/year)	Phase 1	1.00	2.50	9.65	0.017	1.07	0.31
	Phase 2	0.60	1.14	5.28	0.016	1.00	0.29
	Total	*1.60*	*3.64*	*14.93*	*0.033*	*2.07*	*0.60*
YSAQMD Threshold		10 tons/year	10 tons/year	N/A	N/A	80 lbs/day	N/A
Threshold Exceeded?		**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: See Appendix A for detailed results.

Table 3.3-5 shows that the daily PM10 emissions and the annual ROG and NOx emissions from the Biotechnology and Science Building, the future Student Success Center, and the future classroom will remain below the YSAQMD criteria air pollutant thresholds. The proposed project would also not conflict with the applicable air quality plans, which addresses the cumulative emissions in the SVAB. Accordingly, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Impacts would be less than significant.

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

The greatest potential for exposing sensitive receptors to substantial pollutant concentrations would occur during construction, due to diesel particulate emissions from heavy equipment operations and heavy-duty trucks. Residences are sensitive receptors that could be exposed to substantial diesel particulate concentrations during construction. However, the residences nearest to the Vacaville Center are located more than 0.5 mile away and would not likely exposed to substantial pollutant concentrations. Additionally, construction of the Biotechnology and Science Building and related site improvements would occur over an approximately 7-month period, and would not be a long-term source of construction pollutants in the region.

e) Would the project create objectionable odors affecting a substantial number of people?

Odors are a form of air pollution that is most obvious to the public. Odors can present significant problems for both the source and surrounding community. Although offensive odors seldom cause physical harm, they can be annoying and cause concern.

Potential sources that may emit odors during construction activities include diesel equipment and gasoline-powered engines. Odors from these sources would be localized and generally confined to the Vacaville Center project site. Additionally, odors associated with construction equipment would be temporary. Therefore, proposed project construction would not cause an odor nuisance.

Operation of the proposed project would involve vehicle trips to and from the site and typical building and landscaping maintenance. These activities do not generate substantial objectionable odors and the operation of the project would not cause an odor nuisance.

3.4 Biological Resources

Information in this section is based on the "Biological Technical Report for the Vacaville Campus Site, City of Vacaville, California," prepared by Dudek, March 2015, and included as Appendix B of this Initial Study.

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

The proposed project is located on an approximately 48.75-acre property that is moderately flat with elevations on the site ranging from approximately 84 feet above mean sea level (AMSL) on the east side of the property, to approximately 99 feet AMSL on the northern side of the property. The project site is currently vacant and contains a fallow field dominated by non-native grasses and scattered trees and shrubs. Regular disking occurs which creates low quality habitat for most species due to the disturbed nature of the site. Two paved (and unmaintained) roads, a classroom, a raised sewer manhole, and three ditches running west to east also occur on the site.

The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service (USFWS) Endangered Species List and California Native Plant Society (CNPS) Rare Plant Inventory was queried for any reported occurrences of special-status species in the nine quadrangle area centered on the

Allendale Quadrangle, within which the site is located (CDFW, USFWS, CNPS 2015). A search of existing biology reports for adjacent properties, soils reports, aerial photos, California Environmental Quality Act (CEQA) documents, and online resources also contributed to development of the list of special-status species with the potential to occur on or immediately adjacent to the site.

The CNDDB, USFWS and CNPS search revealed occurrences for 35 special-status plant species and 55 special-status wildlife species known to occur within the search area. The nine quadrangle search area included some species that require very specialized habitats that do not occur near the project area (e.g., vernal pools, salt marsh, serpentine soils, etc.), and were thus eliminated from further consideration. One special-status plant species, Baker's navarretia (*Navarretia leucocephala ssp. bakeri*), had an occurrence record immediately adjacent to the project site. Baker's navarretia is a vernal pool species that requires specific vernal pool habitat not found on the project site, and was therefore eliminated from consideration. No occurrences of special-status animal species were recorded within the project footprint, although burrowing owl (*Athene cunicularia*) occurrences were recorded just to the southwest of the project site. Due to the suitable habitat available and the disturbed nature of the project site, burrowing owl is expected to be found on the project site. Additionally, other protected raptor species such as white-tailed kite (*Elanus leucocephalus*) and Swainson's hawk (*Buteo swainsonii*) are likely to use the site for foraging, and potentially nesting in the scattered trees along the paved unnamed road that runs through the middle of the project. Mitigation Measure BIO-1, which would require pre-construction surveys for burrowing owl and other raptors prior to project construction, will ensure impacts to these species are less than significant.

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

The majority of the site consists of ruderal/disturbed habitat (non-native annual grass species and non-native forbs and/or bare dirt) that is annually mowed and disked. Developed land (e.g., abandoned roads), ornamental tree plantings and three ditches running east to west, one of which was wet during field surveys and two that were dry, dominate other areas within the Vacaville Center (see Figure 5). Developed land on this property includes the existing Solano Community College buildings, parking lots, roads, sidewalks, and two unused roads that are in disrepair. This land cover has little to no habitat value for native flora and fauna.

No riparian habitat exists on the project site, but a wet ditch in the southern portion of the property supports a narrow strip of emergent wetland vegetation along its length until it enters a culvert under Crescent Drive. While it does not provide important habitat for special status species, it is considered a waters of the United States and is most likely also jurisdictional pursuant to Section 1600 of the California Fish and Game Code. Prior to filling the ditch applications should be files with the applicable natural resource agencies. Refer to 3.4c below for more details on the jurisdictional status of the wet ditch.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

A jurisdictional delineation for the Vacaville Campus site was not conducted as part of the biological assessment. However, the property does have two dry ditches and one wet ditch that all run parallel from west to east. The two dry ditches appear to be inactive and excavated in uplands, and they do not support a dominance of hydrophytic vegetation; therefore, they are most likely not ACOE or CDFW jurisdictional features. The wet ditch has running water, hydrophytic vegetation, and hydric soils. The wet ditch originates from the existing campus, facilities' stormwater and irrigation runoff, and daylights in the center of the property. It then flows to the east before entering a concrete culvert at Crescent Drive. Preliminary reviews of aerial photographs indicate that the storm water ditch appears to flow under Crescent Drive to the southeast toward a detention basin at the corner of Crescent Drive and Quinn Road. The detention basin appears to have an eventual connection to Prospect Slough, which flows to the Sacramento River, Suisun Bay and then San Pablo Bay. The direct hydrologic connection (significant nexus) of a relatively permanent water (wet ditch) to a traditional navigable water (Sacramento River, Suisun Bay, San Pablo Bay) indicates the wet ditch is a waters of the U.S. Future development on the Vacaville Center property affecting the wet ditch could require a Section 404 Permit. The proposed project, would not fill or alter this ditch. The impact is therefore less than significant.

DUDEK

8583

SOURCE: Bing 2015

FIGURE 5

Vegetation Communities

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

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

A wildlife corridor is a linkage of several areas of similar wildlife habitat, generally composed of native vegetation. Corridors are critical for the maintenance of ecological processes including allowing for the movement of animals and the continuation of viable, genetically distinct populations. No wildlife corridors or native wildlife nursery sites exist on the project site.

The animal species observed (as well as those likely to occur) on the project site are generally common species that are adapted to life in proximity to human activity and the urban/suburban environment. Consequently, there will be no impact to native wildlife corridors or nursery sites.

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

According to the Vacaville Municipal Code Chapter 14.09.131 Supplemental Standards, Tree Preservation, "tree" means any live woody plant having one or more well defined perennial stems with an aggregate circumference of 31 inches or more, when measured at 4-1/2 feet above ground level. No trees matching this description are planned for removal during either phase of the project.

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

The Solano County Habitat Conservation Plan (HCP) is currently under review but has not yet been adopted. Therefore, the project would not conflict with any HCP, natural community conservation plan (NCCP) or other approved local, regional or state HCP.

Mitigation Measure

BIO-1 If construction is to occur during the nesting season (between February 1 and August 30 of each year), the project applicant shall provide for a pre-construction survey for tree-nesting and ground-nesting birds to be completed by a qualified biologist no more than 2 weeks prior to the start of construction. The survey shall include areas within 500 feet of the proposed disturbance (demolition, grading, and/or vegetation removal). Active raptor nests located

within 300 feet of the project will be mapped. A determination will be made by a qualified biologist, in coordination with the California Department of Fish and Wildlife (CDFW), as to whether or not construction work would affect the active nest or disrupt reproductive behavior. Criteria used for this evaluation will include, but not be limited to, presence of visual screening between the nest and construction activities, and behavior of adult raptors in response to the surveyors or other ambient human activity. Alternatively, other appropriate avoidance measures approved by CDFW may be implemented to ensure that the nest is protected.

If it is determined that construction will not affect an active nest or disrupt breeding behavior, construction may proceed without any restriction or mitigation measure.

If it is determined that construction will affect an active raptor nest or disrupt reproductive behavior, then avoidance is the only mitigation available. Construction will not be permitted within 500 feet of such a nest until a qualified biologist determines that the subject nests are no longer active.

3.5 Cultural Resources

Information in this section is based on the "Negative Cultural Resources Inventory for the Vacaville Center Campus Project, City of Vacaville, California," prepared March 10, 2015 and included as Appendix C of this Initial Study.

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

NWIC Records Search

Staff of the North Central Information Center (NWIC) conducted a records search for the project area and a one mile radius surrounding the project area on January 26, 2015. These records indicate that no cultural (including archaeological and built-environment) resources have been previously recorded within the project area. The results of this search are summarized below.

Previously Conducted Investigations

Twenty-seven cultural resources technical studies have been conducted within one mile of the project area, four of which have covered at least a portion of the current area of

potential effects (APE) (Table 1). The entirety of the APE appears to have been subject to previous investigation.

Table 3.5-1
Previous technical investigations that have included the APE

Report No.	Year	Author	Title
5156	1966	Adan Treganza, Robert L. Edwards, and Thomas F. King	Archeological Survey and Excavation Along the Tehama-Colusa Canal. Report Location Approximated.
7675	1985	Dana McGowen Seldner	A Preliminary Archeological Study of the Northeast Sector, Vacaville, Solano County, California.
19521	1996	Micheal Corbett and William Kostura	Historic Architectural Survey Report, Interstate I-80 and Leisure Town Road Project, City of Vacaville, Solano County, California Department of Transportation District 10, 10-SOL-80, KP 47.48/49.08
19562	1996	Micheal Corbett and William Kostura	Historic Property Survey Report, 10-SOL-I-80 KP47.48-49.08 EA 325400, Improvements to I-80 (Caltrans)

Previously Recorded Resources

No previously recorded cultural resources were identified within the project APE; three historical-era archaeological sites have been recorded within the one-mile record search radius (Table 2). None of these resources will be impacted by proposed project activities.

Table 3.5-1
Previously recorded cultural resources

Primary No.	Trinomial	Age	Description	Distance from APE
P-48-000177	CA-SOL-000382H	Historic	Demolished late 1800s-mid 1900s structure.	3,300 feet
P-48-000178	CA-SOL-000383H	Historic	North Gate Road. Determined not NRHP eligible.	870 feet
P-48-000409	CA-SOL-000362H	Historic	Historic structure	1,300 feet

Dudek reviewed available historical topographic maps for the presence of structures or other features that may have been in the project area. Map series from to the following years were inspected: 1994, 1988, 1975, 1969, 1967, 1959, 1954, 1947, 1944, 1922, 1917, and 1908. The nearest symbolized resources, consisting of a structure and dirt road (observed to be present on the 1908-1947 map series), were located approximately 850 feet south of the project APE. These features would have likely been associated with

previously recorded resource P-48-000409. No historical roads or features have been recorded on these maps for areas within the project area.

The record search also provided documentation relating to the NRHP and Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility (ADOE) and Historic Property Directory (HPD) lists. No sites listed as eligible for listing have been recorded within the project APE, or a surrounding one-mile area. Historical route P-48-000178, located 870 feet east of the project, has been classified 6Y; determined ineligible for listing in the National Register through a consensus determination of a federal agency and the State Historic Preservation Officer.

NAHC Sacred Lands File Search

On March 1, 2015, a request was submitted to the State of California NAHC to review the Sacred Lands File for information on Native American cultural resources that might be impacted by the proposed project. A response was received on March 11, 2015 indicating that the NAHC search failed to indicate the presence of Native American cultural resources in the proposed Project area.

Tribal Outreach

The NAHC response further enclosed a list of Native American individuals/organizations that may have knowledge of cultural resources in the proposed Project area. Outreach letters were sent to these individual with a project description, location maps, and a request for any additional information that might be provided relating to Native American resources in the vicinity. As requested by the NAHC in their response, follow up outreach attempts were made by e-mail and telephone on March 20, 2015 (Table 3). To date, no responses to these outreach attempts have been received.

Table 3.5-2
Record of tribal information request outreach

Tribal Representative	Tribe / Organization	E-mail	Phone	Letters	Comments
Ms. Cynthia Clarke	Yocha Dehe Wintun Nation	No contact available	3/20/2015	3/11/2015	No response received.
Mr. Kesner Flores	Maidu / Miwok	3/20/2015	3/20/2015	3/11/2015	No response received.
Mr. Leland Kinter	Yocha Dehe Wintun Nation	No contact available	3/20/2015	3/11/2015	No response received.
Native Cultural Renewal Committee	Yocha Dehe Wintun Nation	No contact available	3/20/2015	3/11/2015	No response received.

Table 3.5-2
Record of tribal information request outreach

Tribal Representative	Tribe / Organization	E-mail	Phone	Letters	Comments
Mr. Charlie Wright	Cortina Band of Indians	No contact available	3/20/2015	3/11/2015	No response received.

Intensive Pedestrian Survey

An intensive pedestrian survey of the project area was conducted by Dudek archaeologist Nicholas Hanten on February 2, 2015 using standard archaeological procedures and techniques that meet the Secretary of Interior's standards and guidelines for cultural resources inventory. No artifacts or features were identified during the survey of the project area.

The project APE was subject to a 100% survey with transects spaced no more than 10 meters apart and oriented in cardinal directions. Survey was aided through the use of a 3rd Generation Apple IPad and georeferenced maps and a Trimble GeoExplorer 6000 series Global Positioning System (GPS) receiver with sub-decimeter accuracy.

Opportunistic inspection of natural and artificial subsurface erosional exposures suggests that this area has a low potential to contain intact subsurface cultural deposits. Less than one-third of the ground surface was directly visible due to the presence of low-laying non-native grasses throughout the area. The entirety of the project area has been severely disturbed by agricultural activities, with disking visible in aerial imagery dating to 1968. Additional past disturbances to the area have included installation of a number of utilities and water drainages, as well as construction of adjacent roads and the existing Solano Community College campus.

Conclusion

No cultural resources, including historical resources as defined in Section15064.5 (CEQA Guidelines) would be impacted by the proposed project. The project impact would be less than significant.

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

A Phase I Inventory conducted for the proposed project has indicated that no archaeological or built-environment resources have been identified within the project APE, and that there is a very low potential for the inadvertent discovery of cultural resources during project-related activities. Based on these negative results and the highly disturbed nature of the project setting, no further cultural efforts or mitigation, including cultural construction monitoring, are recommended to be required in support of implementation of the current project.

In the unlikely event that archaeological material be identified in the area during earth moving activities, Mitigation Measure CUL-1 would be implemented. With implementation of Mitigation Measure CUL-1, the project impact would be less than significant.

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

The Cultural Resources Inventory prepared for the project site provides no evidence that the project would affect a unique paleontological resource site or unique geologic feature. In the unlikely event that paleontological resources are discovered during construction, implementation of Mitigation Measure CUL-1 would ensure that the project impacts are less than significant.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Per the discussion above, there is no evidence of human remains within the project area. In the unlikely event that human remains are discovered during project construction, implementation of Mitigation Measure CUL-1 would ensure the project impacts are less than significant.

Mitigation Measure

CUL-1 Should archaeological or paleontological material be identified in the area during earth-moving activities, work should be temporary halted in the vicinity, and the City consulted. A qualified archaeologist (or paleontologist) will be assigned to review the unanticipated find, and evaluation efforts of this resource for CRHR listing will be initiated in consultation with the City. Should human remains be discovered, work will

halt in that area and procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5) will be followed, beginning with notification to the City and County Coroner. If Native American remains are present, the County Coroner will contact the Native American Heritage Commission to designate a Most Likely Descendent, who will arrange for the dignified disposition and treatment of the remains.

3.6 Geology and Soils

The Geotechnical Engineering Report, Solano Community College-Vacaville Campus, prepared by Wallace Kuhl and Associates, 2006, is included as Appendix D of this Initial Study.

a) Would the project expose people or structures to 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.

The Vaca-Kirby Hills Fault system is the only fault system that passes through the project area. This fault system has a very low risk of rupture (City of Vacaville 2013). The project site is not located within an Alquist-Priolo Earthquake Fault Zone (Department of Conservation 2007). The project site does not show any indication of surface rupture or fault-related surface disturbance (Wallace and Kuhl 2006). The SCCD's Incident Response Plan includes procedures required or recommended by SCCD to minimize health and property risks in the event of an earthquake. The building would be subject to the Uniform Building Code requirements for seismic safety. This potential impact would be less than significant.

ii) Strong seismic ground shaking?

Seismic ground-shaking could occur as the result of an earthquake in the area. As discussed above, the project site is in the vicinity of several fault lines but would not be substantially at risk of potentially damaging earthquakes. The Geotechnical Engineering Report prepared for the project site (Wallace and Kuhl 2006) predicts that the maximum seismic event that could occur at the project site is a magnitude 6.6 less than 1.2 miles from the site. The project would result in a less-than-significant impact.

iii) Seismic-related ground failure, including liquefaction?

The Vacaville Draft General Plan categorizes the project site as being at low risk for liquefaction (see General Plan Figure SAF-2). The Geotechnical Report (Wallace and Kuhl 2006) also classifies the site as being at low risk of liquefaction. A factor of safety of 1.3 or greater against liquefaction potential is generally considered acceptable. The Geotechnical Report calculated a factor of safety of 0.52 for the soils located approximately 10.5 to 13 feet below grade and a factor of safety of 0.83 for soils approximately 16 to 19.5 feet below grade. The remaining soils within approximately 51.5 feet of the ground surface are considered nonliquefiable (greater than 1.3). This composition generally results in minimal or no ground damage. Due to the flat ground level of the project site and the absence of significant slopes, basins, or canyons in the site vicinity, the project is at low risk of damage due to lateral spreading.

iv) Landslides?

The project site is flat (less than 5% grade, according to the Vacaville Draft General Plan Figure SAF-4) and as such would not be susceptible to landslides. The project site is outside of landslide damage areas as mapped on the Vacaville Draft General Plan Figure SAF-3.

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

The project would be located on an area partially developed (paved and landscaped). The project would not disturb sensitive areas such as drainages or permanently remove ground cover from areas prone to erosion. Erosion and topsoil loss could potentially occur during construction. has the potential to occur during construction. However, standard best management practices required (by both the RWQCB and City grading requirements) would ensure no substantial erosion would occur.

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

The Geotechnical Report prepared for the project site (Wallace and Kuhl 2006) indicates that the upper 12 inches of surface soils at the site have been disturbed during previous site uses and are not capable of supporting building foundations in their present condition. However, the native undisturbed soils combined with engineered fills

composed of native soils or approved imported soils would be able to support the proposed project.

Please refer to item (a)(iii) for more information on lateral spreading and liquefaction.

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

The sandy silts and silty clays identified across the surface of the site possess a medium expansion potential (Wallace and Kuhl 2006). Construction of the proposed project on these soils could pose potentially significant structural issues. Mitigation Measure GEO-1 would require construction to follow the recommendations of the Geotechnical Report prepared to the project, which may include construction of interior pad areas and exterior flatwork with granular materials or lime treatment of native soils. Implementation of Mitigation Measure GEO-1 would ensure potential impacts related to expansive soils would be less than significant.

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

The project would not require the installation of septic tanks or alternative waste water disposal systems. The project would connect to the existing sewer system. This impact would be less than significant.

Mitigation Measures

GEO-1 Construction shall be required to comply with the recommendations of the geotechnical report related to special construction measures to be implemented when building on expansive soils. These measures may include construction of interior pad areas and exterior flatwork with granular materials or lime treatment of native soils. "Geotechnical report" refers to the Geotechnical Engineering Report, Solano Community College-Vacaville Campus prepared by Wallace Kuhl and Associates, 2006, or a newer geotechnical report that supersedes this report.

3.7 Greenhouse Gas Emissions

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

Global climate change is a cumulative impact; a project's individual GHG emissions combined with the cumulative increase of all other sources of greenhouse gas (GHGs) may contribute to the ongoing global changes in climate attributed to GHG concentrations. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008).

Neither the State of California nor the YSAQMD has established CEQA significance thresholds for GHG emissions. The Governor's Office of Planning and Research (OPR) advises, "Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the OPR advisory indicates, "In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008). In addition, CEQA Guidelines Section 15064.4, state that a lead agency has discretion in determining the most appropriate method for assessing the significance of impacts from GHG emissions. Therefore, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations.

Neither SCCD nor YSAQMD has adopted a GHG threshold of significance. In October 2014, the Sacramento Metropolitan AQMD Board of Directors adopted a resolution recommending a threshold of 1,100 metric tons annually. The SMAQMD recommends that this threshold be applied to both construction and operational impacts. Because YSAQMD has not recommended a specific threshold, and the project site is within the SVAB, this analysis relies on the threshold to determine the significance of project impacts.

With respect to GHG emissions, CEQA Guidelines Section 15064.4(a) states that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. Section 15064.4(a) further notes that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards."

Section 15064.4(b) provides that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent a project may increase or reduce GHG emissions as compared to the environmental setting
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Construction GHG Emissions

Construction of the proposed project would result in GHG emissions that are primarily associated with the use of construction equipment as well as the operation of worker vehicles and haul trucks. As previously stated in Section 3.3, Air Quality, construction of the Biotechnology and Science Center is expected to include the following activities: site preparation, grading, trenching, paving, building construction, and architectural coatings (painting), which would occur over a 7-month period. CalEEMod was used to estimate the total GHG emissions from this construction, as summarized in Table 3.7-1. The emissions in that table include emissions from on-site (off-road equipment) and off-site (on-road haul trucks, delivery trucks, and worker vehicles) sources during construction. Details of the construction emission assumptions and calculations are included in Appendix A.

GHG emissions are measured in carbon dioxide equivalents, or CO_2E. This measurement converts the most common GHGs to an equivalent amount of CO_2, in consideration of the different levels of global warming potential of each individual GHG. The global warming potential has been determined based on the specific characteristics of each GHG – such as how much heat the particular GHG traps in the atmosphere and the decay rate of the gas (how long the molecules of that gas persist in our atmosphere).

Table 3.7-1
Proposed Project Estimated Construction Greenhouse Gas Emissions

Source	MT CO2E
Site Preparation	0.85
Grading	4.96
Utilities (Trenching)	2.38

Table 3.7-1
Proposed Project Estimated Construction Greenhouse Gas Emissions

Source	MT CO2E
Building Construction	126.94
Paving	3.36
Architectural Coating	0.70
Total	**139.19**

Note: See Appendix A for complete results.
MT CO2E = metric tons carbon dioxide equivalent

As shown in Table 3.7-1, the maximum estimated construction GHG emissions for the proposed project would be approximately 139 MT CO_2E, with all construction anticipated to occur in a single year. As this amount is substantially below the 1,100 MT CO_2E threshold, the project's construction GHG emissions would be less than significant.

Operational GHG Emissions

Project operation would generate long-term GHG emissions primarily associated with the vehicle trips to and from the facility, energy consumption within the building, water consumption, generation of solid waste and wastewater (and subsequent disposal or treatment of the waste), and landscape and building maintenance activities. Table 3.7-2 Operational GHG Emissions reflects the GHG emissions associated with operation of the Biotechnology and Science Center as estimated using CalEEMod.

Table 3.7-2
Operational GHG Emissions

GHG Source	MT CO_2E
Area	0.000066
Energy	102.70
Mobile	966.17
Waste	13.21
Water	5.36
Total	**1,087.44**

Notes: See Appendix A for detailed results.

Table 3.7-2 shows the total annual GHG emissions expected to be generated by the proposed project. The majority of GHG emissions come from mobile sources – the vehicle trips to and from the campus. Specifically, mobile sources would be responsible for 89% of the project's CO_2E emissions. As shown in Appendix A, CalEEMod

operational emissions modeling was completed specifically to evaluate GHG emissions. The GHG analysis modeling uses a reduced trip generation rate to reflect that there would be few or no vehicle trips to the site during school vacation periods and reduced trips during summer session. Specifically, the campus is in regular session for 8 months of the year, summer session (at approximately 50% capacity) for 2 months and on vacation for 2 months.

The project would be constructed to meet the LEED Silver standard requirements. LEED is a program that assigns points to a proposed building based on the energy efficiency and environmental sustainability features incorporated into its construction. Since the LEED points can be achieved through a variety of improvements, it is not known at this time exactly which energy efficiency and environmental sustainability features will be selected. The CalEEMod modeling uses a 10% improvement in energy efficiency compared to the base efficiency standards under California's Title 24 requirements to reflect achievement of the LEED Silver standard. The modeling also reflects that there would be a slight decrease in vehicle trips to and from the site due to the use of transit and carpooling. These trip reduction measures are not reflected in the traffic modeling for the project to ensure that all peak hour trips are accounted for in the impact analysis. However there is existing transit service to the site, and the modeling assumes a 2.5% reduction in total weekday vehicle trips based on transit use and informal carpooling. The modeling also assumes that high efficiency lighting would be used to reduce lighting energy demands by 5%, recycling would be used to reduce solid waste disposal by 30%, water efficient toilets would be installed, and a water efficient irrigation system would be installed.

There are no GHG emissions associated with the project site currently; therefore, the proposed project would increase GHG emissions compared to existing conditions. However, emissions would remain below 1,100 MT CO2E and impacts would be less than significant.

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

The Climate Change Scoping Plan, approved by CARB on December 12, 2008, provides an outline for actions to reduce California's GHG emissions. The Scoping Plan provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Moreover, the Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be

appropriate for use in determining the significance of individual projects … because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). There are several federal and state regulatory measures aimed at the identification and reduction of GHG emissions; most of these measures focus on area source emissions (e.g., energy usage) and changes to the vehicle fleet (increased use of hybrid, electric, and more fuel-efficient vehicles). While federal and state legislation would ultimately reduce GHG emissions associated with the project, no specific plan, policy, or regulation would be directly applicable to the proposed project.

To date, neither SCCD nor the City of Vacaville has not adopted a Climate Action Plan or GHG reduction plan. No local mandatory GHG regulations, plans, or policies would apply to implementation of the proposed project, and no conflict would occur. Additionally, as demonstrated in Table 3.7-1 and 3.7-2, the proposed project would not exceed the SMAQMD GHG threshold of 1,100 MT CO_2E/year. Therefore, impacts from a potential conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant.

3.8 Hazards and Hazardous Materials

Information in this section is from the "Hazards Assessment for Solano Community College Vacaville Center" prepared by Dudek, March 26, 2015, and included as Appendix E of this Initial Study.

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

The project proposes to construct a biotechnology laboratory and classroom building on the SCCD Vacaville campus and would routinely use chemicals for instructional and laboratory purposes. Some of these chemicals are considered hazardous materials and would need to be stored, managed, and disposed in compliance with federal, state, and local regulations pertaining to hazardous materials. Any hazardous materials used for building operation and classroom instruction would be handled according to product label specifications and the appropriate Safety Data Sheets (SDSs). State law requires businesses to prepare an inventory of hazardous materials they use and store. The Solano County Department of Environmental Management receives this information from businesses and distributes it to local fire protection agencies. SCCD maintains a Hazardous Materials Business Plan that states practices to follow in case of a hazardous materials-related emergency. The project would also comply with federal, State, and local

regulations pertaining to hazardous material disposal. Therefore, the project would not create a significant hazard to the public or the environment through use or disposal of hazardous material. Transport of hazardous materials in Vacaville is discussed in greater detail under item (b) below.

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

The City of Vacaville Draft General Plan's Policy SAF-P6.6 includes implementation measures to ensure safe transport of hazardous materials through Vacaville, including the maintenance of formally-designated hazardous material carrier routes, prohibition of vehicles transporting hazardous materials from parking on City streets, and construction of new pipelines and other channels carrying hazardous materials so that they avoid residential areas and other immobile populations to a reasonable extent. Local and State regulations require a release-reporting program if a release of hazardous materials should occur. Because the proposed project would comply with these regulations, it would not pose a significant hazard to the public or environment.

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

The project is not within a one-quarter mile radius of any other existing or proposed schools. The proposed project includes the construction of a biotechnology laboratory and classroom building on the SCCD Vacaville campus. Students would be trained in proper chemical handling as part of laboratory education. The project would not result in hazardous emissions or waste release.

d) Would the project be located on a site that 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?

The proposed project would not be located on site included on this list of hazardous materials sites.

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 for people residing or working in the project area?

The proposed project is located within the sphere of influence for the Nut Tree Airport Land Use Compatibility Plan (ALUCP) (Solano County Airport Land Use Commission 1988). The Nut Tree ALUCP specifies land use compatibility "Safety Zones," which range from A to F, with Safety Zone A including the most sensitive land uses to airport-related safety and noise impacts and Safety Zone F the least sensitive land uses. The proposed project would be located in Safety Zone F, which allows any land use. The impact would therefore be less than significant.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project is not in the vicinity of a private airstrip.

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

The project would not affect any of the major entrances to or exits from the project site that would be used during emergency evacuation. The project would have no impact on any adopted emergency response or evacuation plans (SCCD 2009).

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

According to the map prepared by the California Department of Forestry and Fire Protection and shown as Figure SAF-9 of the Vacaville General Plan, the project site and immediate vicinity is not at substantial risk of wildland fires.

3.9 Hydrology and Water Quality

a) Would the project violate any water quality standards or waste discharge requirements?

The City of Vacaville and the District are permitted under the Phase II Waste Discharge Requirements for Small Municipal Separate Storm Sewer Systems (MS4), which also serves as a National Pollutant Discharge Elimination System (NPDES) permit. Permittees

of the MS4 are required to prepare a Storm Water Management Plan (SWMP) that contains detailed Best Management Practices (BMPs) and implementation measures to minimize pollutant discharge and maintain stormwater quality. The District's draft SWMP is in the process of developing implementation measures and goals for stormwater BMPs that would be enacted on site, which include campus community involvement, illicit discharge detection and elimination, construction site stormwater runoff control, post-construction storm water management, and pollution prevention and good housekeeping for facilities maintenance and operation.

The proposed project will disturb more than one acre of land is therefore subject to the General Permit for Discharges of Storm Water Associated with Construction Activity Construction, General Permit Order 2009-0009-DWQ. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list BMPs the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment (which is not the case for the Vacaville Center drainage).

Stormwater drainage on site runs generally to the east and south, where it connects to the City's stormdrain system. The closest receiving water is Ulatis Creek, which runs along the southern side of I-80. Ulatis Creek then feeds into Cache Slough. Ulatis Creek and waterways of the Delta (including Cache Slough) are currently considered impaired waters under Clean Water Act Section 303(d) due to unacceptable levels of agricultural pesticides. The proposed project does not propose agricultural uses on site. Therefore, the project would not contribute to these impairments.

The project's implementation and compliance with the BMPs set forth in the District's SWMP would ensure that stormwater quality would be regulated from its source until discharge into the City's stormwater system. These practices would ensure the project would have a less-than-significant impact on water quality.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The project does not propose wells for its water supply; rather, the project would connect to the City's water system. The City's water system does draw approximately 5,000 acre-feet per year of groundwater from the City's wells, most of which withdraw water from the deep aquifer in the basal zone of the Tehama Formation. The City has prepared a Groundwater Management Plan Update (Luhdorff & Scalmanini 2011), which includes basin management objectives (BMOs) intended to sustain the availability and quality of Vacaville's groundwater source, the Solano Subbasin. These BMOs include regular monitoring of groundwater basin conditions, avoidance of groundwater level declines, preservation of groundwater quality, and increased conjunctive use of surface water and groundwater resources. The Groundwater Management Plan also contains actionable recommendations for meeting these BMOs. The project would not interfere with implementation of these groundwater monitoring and conservation activities. While the project would result in the addition of 31,943 square feet of impervious surface to the project area, this amount of impervious surface would not result in a substantial decrease in the acreage available for regional groundwater recharge. Therefore, the project would have a less-than-significant impact on groundwater supplies.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

The project site has a relatively flat ground surface, which would be maintained with construction of the proposed biotechnology building. The general drainage patterns and flow directions would remain consistent with existing conditions. In compliance with the Phase II MS4 Permit and the District's SWMP, the project would implement Low Impact Development (LID) designs, which, among other measures, incorporate runoff retention and treatment infrastructure into building design and landscaping. BMPs would be incorporated during project construction and operation, per the City SWMP and the SWPPP submitted to the Regional Water Quality Control Board, that would minimize erosion and siltation, ensuring compliance with water quality laws and the City's.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As discussed under item (c) above, the project would not substantially alter the existing drainage pattern of the site. Addition of 31,943 square-feet of impervious surface (building) and associated landscaping to the project site would incrementally increase runoff rates and volumes, but these increases would be localized to the project site and would be unlikely to result in flooding. The project would connect to the existing 24-inch storm drain line that serves the Vacaville Center. As discussed above, the incorporation of LID designs into the project would minimize the amount of surface runoff exiting the project site into the City's stormdrain system. The City's Storm Drain Design Standards provide criteria for storm drain design within the City that ensure compliance with watercourse and surface water laws, including the protection of public and private improvements from flood hazards.

e) Would the project 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?

The proposed building would connect to the existing storm drain system. The existing storm drain system transports runoff from the developed area via a 24-inch storm drain, which then daylights south of the existing Vacaville Center Building. The water then connects via surface flow, to the City storm drain system in Vaca Valley Parkway to the south, and Crescent Drive to the east. As discussed under item (d) above, the project site is partially developed, and addition of the biotechnology building would not result in a substantial increase in surface runoff volumes. The stormwater drainage improvements that the project proposes would be sized to convey the 10-year rain event and would meet the requirements of the District's draft SWMP, including the provision of stormwater treatment facilities on site and the prevention of pollutant discharge. As the proposed project consists of a building and associated landscaping, no major sources of additional storm water pollutants would be created. Impacts to stormwater quality and management would be less than significant.

f) Would the project otherwise substantially degrade water quality?

The project proposes to construct a biotechnology classroom building, including on-site teaching laboratories. Operation of the project would involve handling and disposal of

chemicals and other hazardous laboratory materials. Any hazardous materials used for building operation and classroom instruction would be handled according to product label specifications and the appropriate Safety Data Sheets (SDSs). These specifications would ensure proper handling of these materials, including appropriate storage techniques. These hazardous materials would not be stored outdoors or in a manner that would allow contact with stormwater.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project would not include housing, and the project site is not within a 100- or 500-year flood zone as mapped on Vacaville Draft General Plan Figure SAF-6 (Vacaville Draft General Plan, 2013).

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The project site is not located within a 100-year or 500-year flood hazard zone (Vacaville Draft General Plan, 2013).

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project is not located within the potential dam failure inundation zone for the Monticello Dam, located northeast of Vacaville (see Figure SAF-7 of the Vacaville Draft General Plan), or an "Awareness Floodplain Area" as marked on Figure SAF-8 of the General Plan.

j) Inundation by seiche, tsunami, or mudflow?

The project area is not susceptible to these events. The project is not near the ocean (and thus potential tsunami hazards), not near a large body of water potentially subject to seiche, and not near a hillside which could experience mudflow.

3.10 Land Use and Planning

a) Would the project physically divide an established community?

The proposed project would be located adjacent to the existing Vacaville SCCD campus building and would not include the construction of any roads or other circulation

elements. An existing residential neighborhood is located to the east and north of the project site. The area west of the site is currently vacant, and zoned for Business Park and Medium-Density Residential. Existing and planned development to the south of the project is commercial and industrial. The proposed project would not physically divide an established community.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project would not conflict with the City of Vacaville's General Plan or Zoning Ordinance. The project site is designated in Vacaville's General Plan for Public/Institutional uses and is zoned Community Facilities. School facilities are an allowed use in the Community Facilities zone. The Vacaville Annex, owned by SCCD and located on the west side of N. Village Parkway, is designated as Commercial in the General Plan. A small portion of the Vacaville Center campus, in the northwest corner of the SSCD property, is also designated Commercial in the General Plan. However, neither of these Commercial areas would be affected by the proposed project.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

The project would not conflict with an HCP or NCCP (see Section 3.4, Biological Resources).

3.11 Mineral Resources

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

The Vacaville Planning Area contains limited mineral resources that are being extracted (Vacaville Draft General Plan, 2013). The project site is surrounded by existing development, including right of way, and has very low potential to support mineral resources.

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

Please refer to item (a).

3.12 Noise

Information in this section is based on the "Noise Assessment for Solano Community College Vacaville Center" prepared by Dudek, March 31, 2015, and included as Appendix F of this Initial Study.

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Transportation facilities, including major roadways and airports, typically are the principle sources of noise that dictate the ambient noise environment in urban areas. The project site is generally located between Interstate 505 (I-505) on the west and Interstate 80 (I-80) on the south and east. The Vacaville General Plan Update Noise Element (Draft, 2014) indicates the Vacaville Center campus is located outside of the *existing* and *future* 60 CNEL dBA contour for both I-505 and I-80. According to the Noise Element, the campus is also located outside of the 55 CNEL dBA contour for the Nut Tree Airport.

To determine ambient noise levels, three noise measurements were conducted for this noise study (see Figure 6). One measurement (Site 1) was conducted adjacent to Vaca Valley Parkway, east of the intersection with North Village Parkway, at the southern boundary of the campus. A second measurement (Site 2) was conducted adjacent to North Village Parkway, north of the intersection with Vaca Valley Parkway. A third measurement (Site 3) was conducted adjacent to Crescent Road, near the intersection with Stratton Ranch Road. The measured average noise level for Site 1 was 68 dBA, Site 2 was 65 dBA, and Site 3 was 59 dBA, as shown in Table 3.12-1.

Table 3.12-1
Measured Average Sound Levels at Local Roadways

Site	Description	Date/Time	Leq1	Cars	MT2	HT3
1	Approximately 45 feet to center line of Vaca Valley Parkway	10/23/2014 11:05 to 11:15 a.m.	68 dB	98	7	4
2	Approximately 40 feet to center line of North Village Parkway	10/23/2014 10:45 to 10:55 a.m.	65 dB	103	0	5
3	Approximately 25 feet to center line of Crescent Drive	10/23/2014 11:30 a.m. to noon	59 dB	60	4	1

Notes:
1 Equivalent Continuous Sound Level (Time-Average Sound Level)
2 Medium Trucks
3 Heavy Trucks
Source: Dudek 2015

KEY: # Noise Measurement Location

DUDEK

8583

SOURCE: Dudek, 2015.

FIGURE 6

Noise Measurements

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

Table 3.12-2 presents the results of the noise modelling of existing traffic noise levels, at the noise measurement locations. As illustrated in the table, the existing hourly average noise levels during the day range from 59 to 62 dBA L_{EQ} along roadways at the boundaries of the campus. The existing CNEL values range from 60 to 63 dBA along roadways at the boundaries of campus. The measurement locations are generally within 15 feet from the edge of the roadway shoulder; at greater distance from the roadways the noise levels would be lower than indicated in the table.

Table 3.12-2
Existing Ambient Noise Levels Noise Monitor Locations (dBA)

Measurement Location	Noise Source	LEQ Daytime	CNEL
1	Vaca Valley Parkway	61	62
2	North Village Parkway	62	63
3	Crescent Drive	59	60

Source: Dudek 2015

The Vacaville General Plan Update Noise Element (Public Draft, 2014) specifies the following noise compatibility guidelines applicable to the project, listed in Table 3.12-3. A significant impact could occur if the ambient noise level encompassing the proposed new buildings is greater than 70 dB CNEL.

Table 3.12-3
City of Vacaville Noise Standards

Land Use	Normally Acceptable Limit (Maximum CNEL, dB)	Conditionally Acceptable Limit (Maximum CNEL, dB)
Residential	60	70
Schools	70	70
Office, Commercial, Prof.	70	77

Source: Dudek 2015

As shown in Tables 3.12-1 and 3.12-2, the proposed project would not exceed the City's noise standards. Therefore, the impact is considered less than significant.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project construction would generate some groundborne vibration that would be limited to the immediate project site. No pile driving or other intensive construction activities that generate vibration as well as loud repetitive noise would be required as part of project

construction. In addition, the project would not have the potential to generate long-term ground-borne vibration or noise. Typical office or classroom buildings do not include equipment or activities that produce perceptible vibration levels outside the building. Ground vibration from construction activities do not often reach the levels that can damage structures or affect activities that are not vibration-sensitive, although the vibrations may be felt by nearby persons in close proximity and result in annoyance (FTA 2006). As a guide, major construction activity within 200 feet and pile driving within 600 feet may be potentially disruptive to sensitive operations (Caltrans 2002). The project construction activity would not include pile driving, and the closest existing off-site structures to the construction area are located approximately 650 feet away. Consequently, groundborne vibration or noise would be considered less than significant.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The primary long-term noise effect, or increase in ambient noise levels, of the proposed Biotechnology Science Building (Phase 1) and, cumulatively, the future Classroom Building and Student Success Center (Phase 2) would be associated with new traffic trips generated by the new space. Dudek calculated the increase in ambient noise levels for just the Biotech building versus existing traffic noise, and for the Biotech building, New Classroom Building, and Student Success Center compared to the near term or existing traffic noise levels. The comparison of ambient, project-related, and ambient plus project noise levels is provided in Table 3.12-4.

Based upon the analysis of changes in traffic-related noise levels resulting from the proposed project, the noise levels would increase by no more than 3 CNEL dBA. In addition, there are no noise sensitive land uses located adjacent to these roadway segments (e.g., residences, lodging facilities, or hospitals). Consequently, the proposed project, including Phase 1 and Phase 2 together, would not result in a significant increase in the ambient noise environment over the long term. The impact would be less than significant.

Table 3.12-4
Ambient Noise Level Increases Selected Receptor Locations (CNEL dBA)

Measure Location	Existing CNEL	Existing Plus Biotech	Difference	Near Term Plus Biotech, Classrooms, Student Success	Difference	Impact
1	62	62	0	63	1	No
2	63	63	0	66	3	No

Source: Dudek, 2015

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction of the proposed project would generate noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction, distance between the noise source and receiver, and intervening structures.

Construction activities would vary by project component and location. More construction equipment would be required to construct the Biotechnical (Biotech) Sciences Building because it is the largest building. However, for a conservative analysis of off-site construction levels, the noise evaluation used the same equipment assumptions for each of the three proposed buildings. For instance, the new classroom building, while considerably smaller than the Biotech building, was assumed to require the same number and type of construction equipment. Table 3.12-5 summarizes the equipment list and distances to sensitive receptors used in the analysis of construction noise levels.

Table 3.12-5
Construction Equipment List and Distances to Sensitive Receptors

Equipment Needed	(1) Man lift (1) Compressor (1) Drum mixer (1) Crane (1) Tractor (1) Front End Loader (1) Concrete Pump (3) Backhoe (1) Welder
Sensitive Receptors	Biotech Building to Crescent Residences: 625 feet New Class Building to Crescent Residences: 1,235 feet Student Success Building to Crescent Residences: 1,550 feet

Source: Dudek 2015

A construction noise analysis was performed using a model developed under the auspices of the Federal Highway Administration (FHWA) called the Roadway Construction Noise Model (RCNM) (FHWA 2008). Table 3.12-6 presents the construction noise levels based on the model results.

Table 3.12-6
Construction Noise Levels Summary of Results (dBA LEQ)

Building Under Construction	Receptor	LEQ Daytime (Existing)	Construction Noise Level
Biotech Science	Crescent Drive Residences	59	64
New Classroom	Crescent Drive Residences		58
Student Success	Crescent Drive Residences		56

Source: Dudek 2015

The City of Vacaville General Plan includes Policy NOI-P4.2, which requires the following construction noise control measures:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Limit hours of operation of outdoor noise sources through conditions of approval.

In addition, the City's Municipal Code Title 8, Health and Safety, Chapter 8.10.030 includes provisions regarding construction activities. Specifically, the Code states that noise from construction activities require that "[n]o construction or grading equipment shall be operated nor any outdoor construction or repair work shall be permitted within 500 feet from any occupied residence between dusk (one-half hour after sunset) and 7:00 a.m. Monday through Saturday, and no such construction or grading activities shall be allowed on Sundays or holidays." There are some exceptions associated with emergency activities and individual homeowners. The project would be required to comply with the City's Municipal Code regarding construction noise; however, the closest residence is located over 500 feet from the project site; therefore, there would be no requirement to limit the hours of construction.

Project construction would result in construction noise levels at off-site noise-sensitive land uses that are very similar to the existing ambient daytime noise levels. Due to the proximity of the Biotech Sciences building site to Crescent Drive, construction noise levels could be approximately 5 dBA higher than existing daytime exterior levels, which would be noticeable, but would not be expected to disrupt daytime activities inside nearby residences.

Average noise levels from construction activities may be mildly annoying at times, compared to existing daytime ambient noise levels. With lower ambient noise levels in the evening and at night, construction noise would be more noticeable during these periods, and would also have a greater potential to be disruptive for residences and lodging uses in the project vicinity. This is considered a potentially significant impact. Compliance with Mitigation Measure NOI-1 would ensure potential noise impacts associated with construction activities would be reduced to a less-than-significant level.

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 expose people residing or working in the project area to excessive noise levels?

The proposed project is located within the sphere of influence for the Nut Tree Airport Land Use Compatibility Plan (ALUCP) (Solano County 2013). The Nut Tree ALUCP specifies land use compatibility "Safety Zones," which range from A to F, with Safety Zone A including the most sensitive land uses to airport-related safety and noise impacts and Safety Zone F the least sensitive land uses. The proposed project would be located in Safety Zone F, which permits all land uses. The project would not expose students or faculty to excessive noise levels from the Nut Tree Airport and the impact is less than significant.

f) For a project be within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The project site is not within the vicinity of a private airstrip; therefore, students or faculty would not be exposed to excessive noise levels. There would be no impact.

Mitigation Measure

NOI-1 To avoid disruption to nearby residents, construction activities shall be limited to daytime hours between 7 AM to 7 PM Monday through Saturday. No exterior construction activities shall be permitted on Sundays.

3.13 Population and Housing

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

The proposed project would expand the existing Vacaville campus of the SCCD. The campus currently supports approximately 2000 students. SCCD estimates that student

growth will occur at an annual rate of 1% district-wide (SCCD, 2014). The proposed project would expand the services of Vacaville Center to accommodate the projected demand for higher education in Solano County, planned for by the SCCD. The impacts of the project on population growth would be less than significant.

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

The project would be constructed on a vacant site within the existing Vacaville Center. The project would not displace existing housing (no impact).

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The project would be constructed on a vacant site within the existing Vacaville Center. The project would not displace any people (no impact).

3.14 Public Services

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

Fire protection?

The proposed project would receive fire protection services from the Vacaville Fire Department, which serves the existing Vacaville Center. The Vacaville Fire Department's Station 73, located at 650 Eubanks Court, would serve the project site. The project would not substantially increase demands on fire service, and would have a less than significant impact to public services/facilities.

Police protection?

The proposed project would be served by the Solano Community College Police Department. Because the department is managed by the SCCD, the proposed project's increased demand for police protection services is planned for and would not result in any environmental changes related to increased public service demand.

Schools?

The project proposes to add classroom and laboratory facilities to the Vacaville Center of SCCD to accommodate an increased interest in and demand for post-secondary scientific education in Solano County. As the proposed project would primarily serve people already residing in Solano County, it would not result in substantial growth within regional elementary and secondary schools.

Parks?

The project does not include the addition of any new residents that would require park and recreational amenities.

Other public facilities?

The proposed project would not affect any other public facilities.

3.15 Recreation

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

The project would not affect existing neighborhood parks. As Vacaville Center primarily serves those living in or immediately adjacent to Solano County, the demand for neighborhood or regional park space would not change substantially. The proposed project includes outdoor areas to serve students and staff on campus. Therefore, the project would have a less than significant impact on existing neighborhood and regional parks.

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?

The proposed project does not include the construction or expansion of recreational facilities.

3.16 Transportation and Traffic

Information in this section is from the Transportation Impact Analysis, Solano Community College Vacaville Campus, prepared by Fehr & Peers April 2015, and included as Appendix G of this Initial Study.

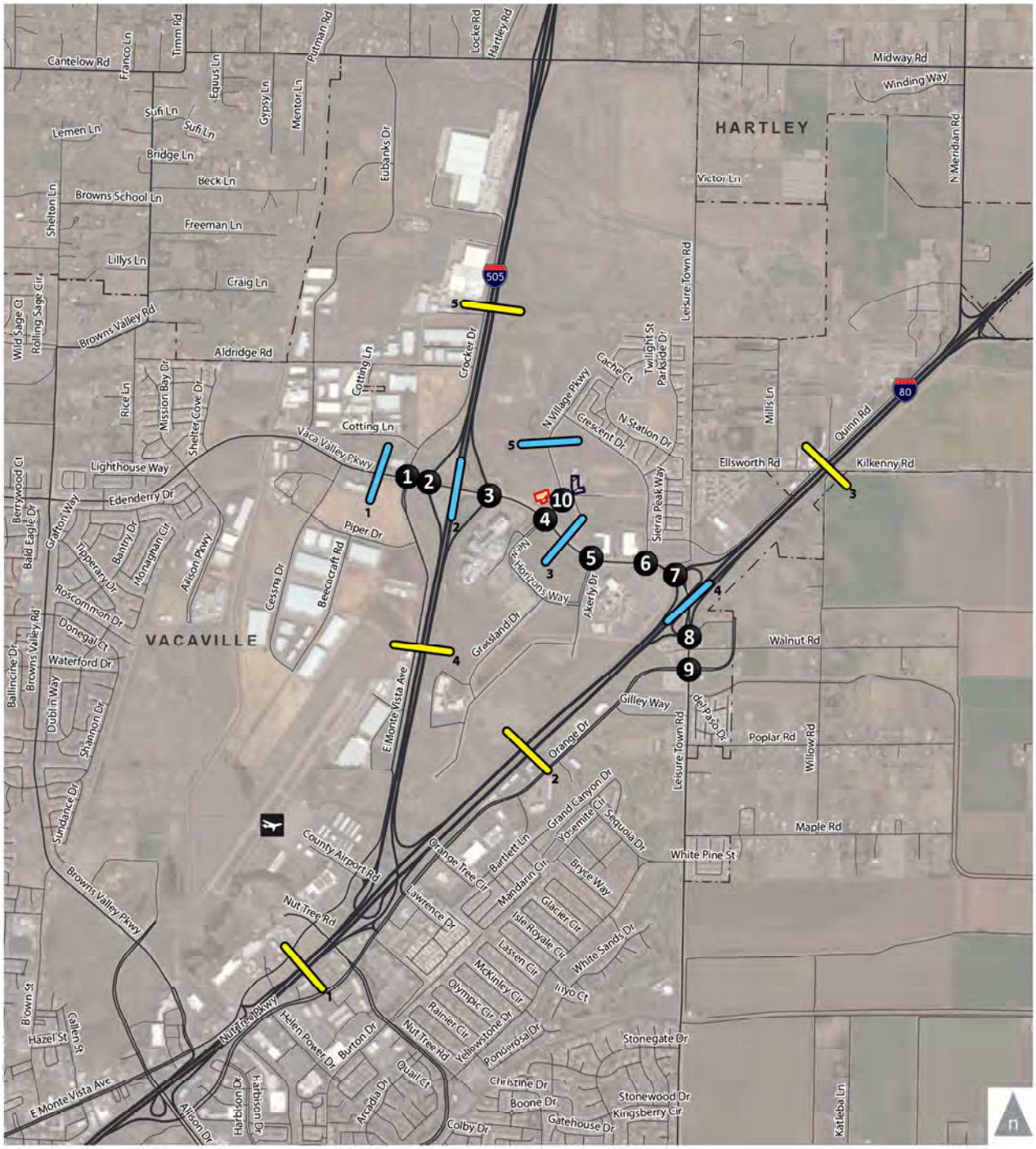
a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Transportation impacts at ten (10) study intersections, five (5) roadway segments and five (5) freeway segments were evaluated under guidelines provided by staff from the City of Vacaville (see Figure 7). Roadway system operations were evaluated under the following study scenarios:

- Existing Conditions
- Existing with Phase 1 Conditions
- Near Term Conditions
- Near Term with Phase 1 Conditions
- Near Term with Phase 2 Conditions
- Cumulative without Project Conditions
- Cumulative with Phase 1 Conditions
- Cumulative with Phase 2 Conditions

The Transportation Impact Analysis (TIA) refers to the proposed project as "Phase 1." Phase 1 is the Biotechnology and Science Building. "Phase 2" refers to the two additional buildings planned for future bond funding (the Student Success Center and the additional Annex classroom building) For purposes of this Initial Study, Phase 2 is part of the cumulative conditions (as they are planned for construction five to ten years after completion of Phase 1).

Impacts to pedestrians, bicyclists and the transit system were also evaluated (see item f discussion, below).



LEGEND

- # Study Intersection
- Workforce Development Center
- Main Vacaville Center Campus
- # Freeway Segment
- # Arterial Segment

DUDEK

8583

SOURCE: Fehr & Peers, 2015.

FIGURE 7

Traffic Study Area

Solano Community College Vacaville Center MND

INTENTIONALLY LEFT BLANK

Project-generated vehicle trips were estimated based on the current site's traffic generation per square foot, applying those rates to the added floor area. Phase 1 of the project is expected to generate 138 new AM peak hour trips (72 inbound, 66 outbound) and 129 new PM peak hour trips (71 inbound, 58 outbound). Phase 2 of the project is expected to generate (by itself) 131 new AM peak hour trips (68 inbound, 63 outbound) and 122 new PM peak hour trips (138 inbound, 113 outbound). Therefore, the total net new trips after construction of Phase 2 is 269 AM peak hour trips (140 inbound, 129 outbound) and 251 PM peak hour trips (138 inbound, 113 outbound). Trip generation calculations and trip distribution are discussed in Section 3 of the TIA (Appendix G).

Intersection Impacts

Of the ten study intersections shown on Figure 7, all but one operates acceptably under existing conditions, using the designated Level of Service (LOS) Standard. The LOS standards for intersections, freeway segments, and roadway segments are discussed in Section 1 of the TIA (Appendix G). Intersection #2, I-505 Southbound Ramps/Vaca Valley Parkway operates at LOS F for the worst approach, AM and PM peak hours. This intersection is a side street stop controlled intersection that currently meets the warrants for installation of a traffic signal.

Existing and Near Term

Project traffic effects were calculated for the existing traffic scenario, and under "near term" conditions. See Table 3.16-1 for existing and existing plus project ("Phase 1") conditions. Near term conditions take into account traffic generated by development that is already approved, but not yet built (see Section 4 of the Transportation Impact Analysis). The near term roughly coincides with the completion of the proposed Biotechnology and Science Building. See Table 3.16-2 for near term and near term plus project ("Phase 1") conditions.

Table 3.16-1
Existing with Project Intersection Peak Hour Levels of Service

Intersection		Control[1]	Peak Hour	Existing Conditions		Existing with Phase 1 Conditions	
				Delay[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]
1	East Monte Vista Avenue-Crocker Drive/Vaca Valley Parkway	Signal	AM PM	15 31	B C	15 32	B C
2	I-505 Southbound Ramps/Vaca Valley Parkway	SSSC	AM PM	9 (83) 27 (>300)	A (F) D (F)	15 **(139)** **48 (>300)**	C **(F)** **E (F)**

Table 3.16-1
Existing with Project Intersection Peak Hour Levels of Service

Intersection		Control[1]	Peak Hour	Existing Conditions		Existing with Phase 1 Conditions	
				Delay[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]
3	I-505 Northbound Ramps/Vaca Valley Parkway	Signal	AM PM	14 14	B B	15 15	B B
4	New Horizons Way-North Village Parkway/Vaca Valley Parkway	Signal	AM PM	13 19	B B	14 22	B C
5	Akerly Drive/Vaca Valley Parkway	Signal	AM PM	21 13	C B	22 13	C B
6	Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway	Signal	AM PM	32 30	C C	33 30	C C
7	I-80 Westbound Ramps/Vaca Valley Parkway	Signal	AM PM	5 7	A A	5 7	A A
8	I-80 Eastbound Ramps/Leisure Town Road	Signal	AM PM	12 13	B B	13 13	B B
9	Orange Drive/Leisure Town Road	Signal	AM PM	14 18	B B	14 18	B B
10	North Village Parkway/Vacaville Campus Main Driveways	SSSC	AM PM	3 (11) 4 (11)	A (B) A (B)	5 (12) 6 (12)	A (B) A (B)

Notes: Results in **bold** denotes unacceptable operations. **Bold and highlighted** indicates a significant impact.
1. Signal = Signalized intersection, SSSC = Side-street stop controlled intersection
2. Signalized intersection level of service based on average intersection control delay; SSSC intersection delay is reported as intersection average (worst-case approach)
3. LOS = Level of Service per 2010 HCM

Source: Fehr & Peers, March 2015 (TIA Table 11)

Under existing plus project scenario, Intersection #2 would be subject to additional delay (see Table 3.16-1). Under existing plus near term conditions, Intersection #2 would be subject to additional delay. No other intersections would operate at an unacceptable LOS. As Intersection #2 already operates at an unacceptable level of service and meets signal warrants, the addition of project traffic is considered a cumulative impact. The project's contribution to the cumulative impact at Intersection #2 would be reduced to a less-than-significant level by the implementation of Mitigation Measure TRA-1.

Table 3.16-2
Near Term with Project Intersection Peak Hour Levels of Service

Location		Control[1]	Peak Hour	Near Term Conditions		Near Term With Phase 1		Near Term with Phase 2	
				Delay[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]
1	East Monte Vista Avenue-Crocker Drive/Vaca Valley Parkway	Signal	AM PM	17 51	B D	17 53	B D	17 54	B D
2	I-505 Southbound Ramps/Vaca Valley Parkway	SSSC	AM PM	25 (198) 181 (>300)	D (F) F (F)	**39 (>300)** **>300 (>300)**	**E (F)** **F (F)**	**59 (>300)** **47 (>300)**	**F (F)** **E (F)**
3	I-505 Northbound Ramps/Vaca Valley Parkway	Signal	AM PM	16 18	B B	16 20	B B	17 22	B C
4	New Horizons Way-North Village Parkway/Vaca Valley Parkway	Signal	AM PM	14 25	B C	16 32	B C	18 44	B D
5	Akerly Drive/Vaca Valley Parkway	Signal	AM PM	32 14	C B	33 14	C B	34 14	C B
6	Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway	Signal	AM PM	58 40	E D	58 40	E D	59 40	E D
7	I-80 Westbound Ramps/Vaca Valley Parkway	Signal	AM PM	6 10	A A	6 10	A A	6 10	A A
8	I-80 Eastbound Ramps/Leisure Town Road	Signal	AM PM	13 14	B B	13 14	B B	14 14	B B
9	Orange Drive/Leisure Town Road	Signal	AM PM	17 22	B C	17 22	B C	17 23	B C
10	North Village Parkway/Vacaville Campus Main Driveways	SSSC	AM PM	2 (13) 3 (14)	A (B) A (B)	4 (15) 5 (17)	A (B) A (C)	6 (21) 7 (25)	A (C) A (C)

Notes: Results in **bold** denotes unacceptable operations. **Bold and highlighted** indicates a significant impact.
1. Signal = Signalized intersection, SSSC = Side-street stop controlled intersection
2. Signalized intersection level of service based on average intersection control delay; SSSC intersection delay is reported as intersection average (worst-case approach)
3. LOS = Level of Service per 2010 HCM

Source: Fehr & Peers, March 2015 (TIA Table 14)

Future (2035)

The future conditions are based on City forecasts for General Plan buildout (2035). Certain roadway improvements (including the intersection improvements described in Mitigation Measure TRA-1) are assumed to have occurred by 2035. The methodology for developing the future traffic scenario is described in Section 5 of the TIA (Appendix G). As shown in Table 3.16-3, four intersections would fail to operate at an acceptable LOS, prior to the addition of project traffic:

- Intersection #3 – I-505 Northbound Ramps/Vaca Valley Parkway (PM peak hour)
- Intersection #4 – New Horizons Way-North Village Parkway/Vaca Valley Parkway (PM peak hour)
- Intersection #6 – Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway (PM peak hour)
- Intersection #8 - Orange Drive/Leisure Town Road (PM peak hour)

Table 3.16-3
Future (2035) with Project Intersection Peak Hour Levels of Service

Location		Control[1]	Peak Hour	Cumulative Conditions		Cumulative With Phase 1		Cumulative with Phase 2	
				Delay[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]	*Delay*[2]	*LOS*[3]
1	East Monte Vista Avenue-Crocker Drive/Vaca Valley Parkway	Signal	AM PM	16 32	B C	16 33	B C	16 33	B C
2	I-505 Southbound Ramps/Vaca Valley Parkway	Signal	AM PM	8 8	A A	8 8	A A	8 8	A A
3	I-505 Northbound Ramps/Vaca Valley Parkway	Signal	AM PM	22 48	C D	25 **55**	C **E**	28 **62**	C **E**
4	New Horizons Way-North Village Parkway/Vaca Valley Parkway	Signal	AM PM	19 55	B D	22 **66**	C **E**	31 **79**	C **E**
5	Akerly Drive/Vaca Valley Parkway	Signal	AM PM	19 39	B D	19 40	B D	20 42	B D
6	Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway	Signal	AM PM	42 111	D F	42 114	D F	43 **118**	D F
7	I-80 Westbound Ramps/ Vaca Valley Parkway	Signal	AM PM	12 19	B B	12 19	B B	13 20	B B
8	I-80 Eastbound Ramps/Leisure Town Road	Signal	AM PM	21 21	C C	21 21	C C	21 21	C C
9	Orange Drive/Leisure Town Road	Signal	AM PM	28 73	C E	29 72*	C E	29 71*	C E
10	North Village Parkway/ Vacaville Campus Main Driveways	SSSC	AM PM	2 (16) 2 (22)	A (C) A (C)	3 (20) 4 **(31)**	A (C) A **(D)**	5 (28) 7 **(54)**	A (D) A **(F)**

Notes: Results in **bold** denotes unacceptable operations. **Bold and highlighted** indicates a significant impact. * indicates that project adds trips to movement(s) with delays lower than the average, thus the reduction in average delay.

1. Signal = Signalized intersection, SSSC = Side-street stop controlled intersection
2. Signalized intersection level of service based on average intersection control delay; SSSC intersection delay is reported as intersection average (worst-case approach)
3. LOS = Level of Service per 2010 HCM

Source: Fehr & Peers, March 2015 (TIA Table 17)

The addition of project traffic would contribute to a cumulative (future) impact at three intersections:

- Intersection #3 – I-505 Northbound Ramps/Vaca Valley Parkway (PM peak hour)
- Intersection #4 - New Horizons Way-North Village Parkway/Vaca Valley Parkway (PM Peak Hour)
- Intersection #10 - North Village Parkway/Vacaville Campus Main Driveways (PM Peak Hour)

The consideration of Phase 2 traffic would contribute to an additional cumulative impact:

- Intersection #6 - Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway (PM Peak Hour)

The implementation of Mitigation Measures TRA-2, TRA-3, and TRA-4 would reduce the project's contribution to these cumulative impacts to a less-than-significant level.

Roadway Segments

As discussed in the TIA, all roadway segments studies operate at an acceptable LOS under existing and near term conditions, with or without the addition of project traffic. Under future (cumulative) conditions, two roadway segments do not meet LOS standards:

- Vaca Valley Parkway west of East Monte Vista Avenue (PM Peak Hour)
- Vaca Valley Parkway/Leisure Town Road I-80 overcrossing (PM Peak Hour)

The addition of project traffic does not considerably worsen the performance of these segments (the change in volume-to-capacity ratio is less than 0.02). Therefore, the project would not contribute to a cumulative impact at these roadway segments.

Freeway Segments

As discussed in the TIA, all freeway segments studies operate at an acceptable LOS under existing and near term conditions, with or without the addition of project traffic. Under future (cumulative) conditions, two freeway segments do not meet LOS standards:

- I-80 between East Monte Vista Avenue and I-505 (Eastbound: PM Peak Hour, Westbound: AM and PM Peak Hour)
- I-80 between Vaca Valley Parkway and Meridian Road (Eastbound: PM Peak Hour)

The addition of project traffic does not considerably worsen the performance of these freeway segments (the change in volume-to-capacity ratio is less than 0.01). Therefore, the project would not contribute to a cumulative impact at these roadway segments.

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The project would not conflict with an applicable congestion management program. Note that Vaca Valley Parkway, from I-80 to I-505, is part of the Congestion Management Program in Solano County (STA 2013). The proposed project would not have a significant effect upon this roadway segment. The proposed project would contribute to cumulative impacts at two intersections on this segment. However, these intersections are not identified as study intersections in the plan, and the proposed project mitigation measures would reduce any project contributions to cumulative impacts less than significant.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project would not result in a change to air traffic patterns (no impact).

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

The project would not alter the transportation facilities, or introduce new, potentially incompatible, uses that could substantially increase traffic hazards. The impact would be less than significant.

e) Would the project result in inadequate emergency access?

The project would not alter the ingress or egress to the project site or nearby properties. The effect to emergency access would be less than significant.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed project could result in increased pedestrian trips across North Village Parkway at the Campus Driveway intersection. The intersection currently lacks a marked crosswalk across North Village Parkway and warning signage indicating the presence to pedestrian crossings. This presents a potentially hazardous situation, as North Village Parkway is a high-speed roadway, so the project causes a potentially significant impact for pedestrians at this location. Mitigation measures to alleviate this impact include providing a marked crosswalk and warning signage at the intersection to facilitate pedestrian crossings of North Village Parkway (Measure TRA-7). Implementing the mitigation measures would result in the impacts to pedestrian being less than significant with mitigation.

Bicycle access for the site is primarily handled by Class II bike lanes along North Village Parkway. The project is not expected to disrupt any on-street/off-campus bicycle facilities, so the impacts to bicyclists are less than significant.

The project will generate new demand for the transit services and facilities that serve the area. Fixed-route bus service operates near the site with stops located within walking distance of the proposed development. While student enrollment may increase over time with the implementation of Phase 1 and Phase 2 of the project, transit capacities are not expected to be exceeded. Therefore impacts to transit are less than significant.

Mitigation Measures

TRA-1 I-505 Southbound Ramps/Vaca Valley Parkway is an unsignalized intersection that operates unacceptably in the AM and PM peak hours under Existing Conditions and Existing with Phase 1 Conditions. The intersection also meets the Peak Hour signal warrant in the AM and PM peak hours under Existing Conditions and Existing with Phase 1 Conditions. The mitigation measure is to fund (on a fair share basis) construction of the following improvements at the intersection:

- Signalize intersection (westbound left turn protected phase), signal coordinated with East Monte Vista Avenue-Crocker Drive/Vaca Valley Parkway signal

- Southbound approach: 1 left turn pocket (150 feet length), 1 through-right turn shared lane
- Westbound approach: 1 left turn pocket (150 feet length), 1 through lane
- Eastbound approach: 1 through lane, 1 right-turn lane

Since the intersection operates unacceptably under Existing Conditions and meets the Peak Hour signal warrant under Existing Conditions, the District shall pay a fair share contribution towards the construction of a signal and other improvements at the intersection. Alternatively, improvements may be funded through payment into the City's Development Impact Fee (DIF) program.

Constructing these improvements would result in acceptable traffic operations (LOS C or better) at the intersection (8 seconds of delay in the AM peak hour, 12 seconds of delay in the PM peak hour). It should also be noted that these mitigation measures will not preclude implementation of the Cumulative year I-505/Vaca Valley Parkway overcrossing improvements.

TRA-2 I-505 Northbound Ramps/Vaca Valley Parkway and New Horizons Way-North Village Parkway/Vaca Valley Parkway are signalized intersections that operate unacceptably before the addition of project trips under Cumulative with Phase 1 Conditions. The mitigation measures proposed below operate as a system, and should be implemented together as one package.

- New Horizons Way-North Village Parkway/Vaca Valley Parkway
  - Add new third westbound lane from Akerly Drive/Vaca Valley Parkway to New Horizons Way-North Village Parkway/Vaca Valley Parkway
  - Stripe westbound approach as 1 left turn lane, 2 through lanes and 1 through-right turn shared lane
  - Restripe southbound approach to 2 left turn lanes and 1 through-right turn shared lane
  - Restripe northbound approach to 2 left turn lanes and 1 through-right turn shared lane

- I-505 Northbound Ramps/Vaca Valley Parkway
  - Carry new third westbound lane from New Horizons Way-North Village Parkway/Vaca Valley Parkway to I-505 Northbound Ramps/Vaca Valley Parkway
  - Stripe westbound approach to 2 through lanes and 1 right turn only lane

Since the two intersections along Vaca Valley Parkway operate deficiently before project trips are added, the project shall pay a fair share percentage of construction costs for improvements at New Horizons Way-North Village Parkway/Vaca Valley Parkway and I-505 Northbound Ramps/Vaca Valley Parkway. Alternatively, improvements may be funded through payment into the City's Development Impact Fee (DIF) program.

New Horizons Way-North Village Parkway/Vaca Valley Parkway would operate at 46 seconds of delay (LOS D); the operations are improved over Cumulative without Project Conditions, so the impact has been reduced to less than significant with mitigation.

I-505 Northbound Ramps/Vaca Valley Parkway would operate at 40 seconds of delay (LOS D); the operations are improved over Cumulative without Project Conditions, so the impact has been reduced to less than significant with mitigation.

TRA-3 North Village Parkway/Vacaville Campus Main Driveways is a side-street stop-controlled intersection that operates acceptably before the addition of project trips under Cumulative with Phase 1 Conditions; the intersection does not meet signal warrants under Cumulative without Project or Cumulative with Phase 1 Conditions. The mitigation measure for this impact consists of the following items:

- Monitor intersection operations at North Village Parkway/Vacaville Campus Main Driveways every five (5) years after occupancy of Phase 1. Monitoring consists of collecting new intersection turning movement counts and intersection LOS analysis using state-of-the-practice analysis methods.
- If intersection operations degrade to an unacceptable level, construct one of the following improvements:
  - If signal warrants are not met, roundabout or all-way stop-control

- If signal warrants are met, signalize or roundabout

The District shall fully sponsor improvements related to mitigating the impact at the North Village Parkway/Vacaville Campus Main Driveways intersection as the intersection operated acceptably before the addition of project trips.

Implementation of these improvements results in North Village Parkway/Vacaville Campus Main Driveways operating at 9 seconds of delay (LOS A) with a one lane roundabout or 13 seconds of delay (LOS B) with all-way stop-control. Signalizing the intersection would result in low levels of delay. The mitigation measures would result in the impact being reduced to less than significant with mitigation.

TRA-4 Kaiser Hospital Driveway-Crescent Drive/Vaca Valley Parkway is a signalized intersection that operates unacceptably before the addition of project trips under Cumulative with Phase 2 Conditions. The mitigation measure for this intersection is to add right turn overlap phases for the westbound right turn movement and northbound right turn movement. The project shall pay a fair share contribution towards the modification of the signals for the overlap phases. Alternatively, the improvements may be funded through payment into the City's Development Impact Fee (DIF) program. Implementing these improvements results in the intersection operating at 59 seconds of delay (LOS E); the operations are improved over Cumulative without Project Conditions, so the impact has been reduced to less than significant with mitigation.

TRA-5 The District shall install a crosswalk and appropriate warning signage to facilitate pedestrians crossing the north leg of the intersection at North Village Parkway/Vacaville Campus Main Driveways. The District shall coordinate with the City of Vacaville to install the crosswalk prior to the start of classes at the Biotechnology and Science Building.

3.17 Utilities and Service Systems

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The project would be served by the Easterly Waste Water Treatment Plant. The plant operates under a National Pollutant Discharge Elimination System (NPDES) permit, issued by the Central Valley Regional Water Quality Control Board. The Easterly Waste

Water Treatment Plant is in compliance with the requirements of the NPDES permit, and the proposed project would not adversely impact the ability of the Plant to comply with these requirements.

Because of the use of laboratory chemicals within the proposed biotechnology building, the project would require processing of hazardous waste. The project would be required to comply with all federal, state, and local regulations governing hazardous waste treatment and disposal. This issue is discussed further under Section 3.8, Hazards and Hazardous Materials.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The City of Vacaville would provide water and wastewater treatment facilities for the proposed project. Potable water is treated at either the North Bay Regional water treatment plant (NBR) or the City's diatomaceous earth water treatment plant (DE Plant). The DE Plant has a capacity of 10 million gallons per day (mgd), and the NBR plant provides a capacity of 13.3 mgd to Vacaville (Vacaville General Plan EIR 2013). The Easterly Waste Water Treatment Plant (WWTP), which has a capacity of 15 mgd, would serve the proposed project (City of Vacaville 2015). Current wastewater flows within the City are within the design capacity of the WWTP (Vacaville Draft General Plan, 2013). The project would not require treatment of water or wastewater beyond the capacities of these facilities.

The proposed building would be served by a new domestic water and fire water line. The City water main is located in N. Village Parkway. Approximately 400 linear feet of 6-inch sewer line would be connected to the existing 6 inch sewer line on site (which in turn connects to the City sewer main in Vaca Valley Parkway). Construction/expansion of water or wastewater facilities would therefore have a less than significant effect on the environment.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed building would connect to the existing storm drain system. The existing storm drain system transports runoff from the developed area via a 24-inch storm drain, which then daylights south of the existing Vacaville Center Building. The water then

connects via surface flow, to the City storm drain system in Vaca Valley Parkway to the south, and Crescent Drive to the east. Project impact related to storm drainage facilities would be less than significant.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The City of Vacaville would provide water service to the project. The City receives water from three supply sources, including the Solano Project, State Water Project (North Bay Aqueduct), and settlement water from an agreement with the Department of Water Resources (DWR). The City also draws water from groundwater sources (Vacaville Urban Water Management Plan (UWMP) 2010). The City's UWMP estimates the total water supply to Vacaville in 2035 will be approximately 41,653 acre-feet per year. The project would be served by the existing water supplies and would not require the City to seek new or expanded entitlements. The project's impact to water supplies would be less than significant.

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

Please refer to item (b).

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Hay Road Landfill, which has a capacity of 2,400 tons per day, would receive the solid waste generated by the proposed project. The Vacaville Draft General Plan states that the Hay Road Landfill is projected to reach capacity in 2069. The solid waste generated by the project would have a less-than-significant impact on this facility.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The project would comply with regulations related to solid waste. With the use of laboratory chemicals within the proposed biotechnology building, the project would require processing of hazardous waste. The project would be required to comply with all federal, state, and local regulations governing hazardous waste treatment and disposal. This issue is discussed further under Section 3.8, Hazards and Hazardous Materials. The impact would be less than significant.

3.18 Mandatory Findings of Significance

a) Does the project have the potential to 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, 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?

The project has the potential to impact wildlife species, as discussed in Section 3.4 of this Initial Study (see also Appendix B, Biological Technical Report). However, implementation of Mitigation Measure BIO-1, which would require pre-construction surveys for burrowing owl and other raptors, would ensure that potential impacts to wildlife would be reduced to less than significant. The project would not substantially reduce habitat, restrict the range of a population, or cause a population to drop below self-sustaining levels. As discussed in Section 3.5, the project would not substantially affect historical or archaeological resources. Mitigation Measure CUL-1 would ensure appropriate handling and evaluation of previously unknown archaeological resources, should they be discovered during project construction.

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)?

The cumulative scenario of the proposed project includes the buildout of projects potentially funded by the Bond Program (Measure Q), which includes development of a Student Support building at the Vacaville Center and an additional building at the Vacaville Annex. Air quality, GHG, and noise impacts associated with the operation of program buildout would not result in a cumulative effect. The traffic analysis incorporates projected (cumulative) growth consistent with the City's general plan and traffic model.

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

As discussed in this Initial Study, the project would not have substantial adverse effects on human beings, directly or indirectly. Impacts related to air quality, hazardous materials, and water quality would be less than significant. Impacts related to noise

would be less than significant (with mitigation incorporated to reduce nuisance associated with construction noise).

4 REFERENCES AND PREPARERS

4.1 References Cited

American Chemical Society 2009. *ACS Guidelines for Chemistyr in Two-Year College Programs*. American Chemical Society: Society Committee on Education. Spring 2009.

California Department of Conservation 2007. Alquist-Priolo Earthquake Fault Zoning Act Maps. http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm. Accessed April 6, 2015.

California Department of Conservation 2011. "Solano County Important Farmland 2010." Farmland Mapping and Monitoring Program. June 2011.

California Geological Survey 2012. *Aggregate Sustainability in California*.

Solano Community College District 2009. *Incident Response Plan*. June 13, 2009.

Solano Community College District 2013. *2013 Facilities Master Plan*. Adopted April 2, 2014.

Solano Community College District 2014. Solano Community College District: Educational Master Plan. July 2014.

Solano County Airport Land Use Commission 1988. *Nut Tree Airport/Land Use Compatibility Plan*. Updated May 2, 2005.

Solano County Department of Environmental Health. "Hazardous Materials Business Plan." http://www.co.solano.ca.us/depts/rm/environmental_health/hazmat/. Accessed April 6, 2015.

Solano Transportation Agency (STA) 2013. Solano County Congestion Management Plan. December 2013.

Vacaville (City of) 2005. Zoning Ordinance. Municipal Code Chapter 14. Amended September 2, 2005.

Vacaville (City of) 2006. *Storm Drain Design Standards*. Revised May 9, 2006.

Vacaville (City of) 2011. *2010 Urban Water Management Plan Update*. July 2011.

Vacaville (City of) 2011. *Groundwater Management Plan Update*. February 2011.

Vacaville (City of) 2013. *Draft General Plan and Energy and Conservation Action Strategy Environmental Impact Report*. October 25, 2013.

Vacaville (City of) 2015. Water/Wastewater. Accessed April 1, 2015. http://www.cityofvacaville .com/index.aspx?page=233

Vacaville (City of) and City of Dixon 2003. *Stormwater Management Plan Fiscal Years 2003-2004 through 2007-2008.* March 2003.

Note: Additional references contained in Appendices A through G of the Initial Study.

4.2 List of Preparers

Dudek

Brian Grattidge, Project Manager
Lisa Achter
Dylan Duverge
Christine Kronenberg
Katherine Waugh
Christine Wolfe

Fehr & Peers

Ian Barnes
Ellen Polling