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ORCHARD PARK REDEVELOPMENT PROJECT

Addendum to the UC Davis 2018 Long Range Development Plan EIR

State Clearinghouse No. 2017012008

Prepared By:

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TABLE OF CONTENTS

Figures

Tables

LIST OF ABBREVIATIONS

2018 LRDP	University of California Davis 2018 Long Range Development Plan
AB	Assembly Bill
BMP	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CBC	California Building Code
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
dB	decibel
dBA	A-weighted decibel
DJUSD	Davis Joint Unified School District
EIR	Environmental Impact Report
HCP	Habitat Conservation Plan
LID	Low Impact Development
I-80	Interstate Highway 80
LOS	level of service
MGD	million gallons per day
MSL	mean sea level
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Center
NCCP	Natural Community Conservation Plan
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
Phase II Small MS4 Permit	General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems
PM_{10}	particulate matter with an aerodynamic diameter of 10 microns or smaller
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 microns or smaller
Project	Orchard Park Redevelopment Project
ROG	reactive organic gases
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SO_2	sulfur dioxide
SR	State Route
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TDM	Transit Demand Management
the Program EIR	2018 LRDP EIR
UC	University of California
UPF	ultrafine particles
VMT	vehicle miles traveled
YSAQMD	Yolo-Solano Air Quality Management District

1 PROJECT INFORMATION

Project title: Orchard Park Redevelopment Project

Project location: University of California, Davis, Yolo County

Lead agency's name and address: The Regents of the University of California
1111 Franklin Street
Oakland, CA 94607

Contact person: Matt Dulcich, Director of Environmental Planning
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Project sponsor's name and address: University of California, Davis
One Shields Avenue
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Davis, CA 95616-8678

Location of administrative record: See Project Sponsor

Previously Certified 2018 LRDP Programmatic EIR: This addendum documents that none of the conditions described in Section 15162 of the State CEQA Guidelines have occurred and the Project will not have any significant effects that were not already discussed in the Programmatic Environmental Impact Report (EIR) for the University of California (UC) Davis 2018 Long Range Development Plan (2018 LRDP) (State Clearinghouse No. 2017012008). The 2018 LRDP is a comprehensive land use plan that guides physical development on campus to accommodate projected enrollment increases and expanded and new program initiatives. The 2018 LRDP and its EIR are available for review at the following locations:

- UC Davis Campus Planning and Environmental Stewardship in 436 Mrak Hall on the UC Davis campus
- Reserves at Shields Library on the UC Davis campus
- Yolo County Public Library at 315 East 14th Street in Davis
- Online at: http://environmentalplanning.ucdavis.edu/2018-lrdp-eir/eir

Please note that due to Covid-19 and California's State of Emergency (Executive Order N-54-20) the UC Davis and Yolo County libraries and UC Davis offices are closed. Providing hard copies at these locations may not be feasible at this time. Please contact UC Davis Environmental Planning office if you need assistance accessing the appropriate documents.

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2 INTRODUCTION

2.1 PURPOSE OF THIS ADDENDUM

The Board of Regents of the University of California (The Regents) certified the environmental impact report (EIR) and adopted the Long Range Development Plan (LRDP) for the UC Davis campus in 2018. The programmatic environmental analysis of the overall LRDP was provided in Volume 1 of the Draft EIR; the Orchard Park Redevelopment component was described and evaluated at a project level in Volumes 3 of the EIR, incorporating information from Volume 1 as relevant, and expanding upon this information as needed. The Orchard Park Redevelopment Project (the "Project") has since been slightly modified. This addendum describes the Project, which would involve the construction of a replacement student housing facility at the Orchard Park site and development of an offsite parking area. The addendum evaluates how this modification to the previously certified Orchard Park Redevelopment component is covered by the 2018 LRDP EIR. No subsequent CEQA document is necessary for this Project.

2.1.1 2018 Long Range Development Plan Environmental Impact Report

The 2018 LRDP is a comprehensive land use plan that guides physical development on campus to accommodate projected enrollment increases and expanded and new program initiatives. The UC Davis 2018 LRDP EIR (State Clearinghouse No. 2017012008) (UC Davis 2018a) was prepared in accordance with Section 15168 of the CEQA Guidelines and Public Resources Code Section 21094 and analyzed the environmental impacts of the 2018 LRDP. The 2018 LRDP EIR (Volume 1) analyzes full implementation of uses and physical development proposed under the 2018 LRDP (UC Davis 2018b) and identifies measures to mitigate the significant adverse program-level and cumulative impacts associated with that growth.

This addendum utilizes a modified checklist format to document that the site-specific renovations are covered by the 2018 LRDP EIR pursuant to Section 15168(c) of the State CEQA Guidelines, which states, "subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared." Pursuant to Section 15168(c)(4), an agency should use "…a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR." The checklist is set up to document that none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR have occurred and an addendum to the 2018 LRDP EIR may be prepared (per CEQA Guidelines Section 15164).

ORCHARD PARK REDEVELOPMENT COMPONENT OF THE 2018 LRDP EIR

The Orchard Park Redevelopment component of the 2018 LRDP EIR (Volume 3) evaluated at a project level the construction of a replacement student housing facility at the Orchard Park site of the former Orchard Park Apartment Complex. These facilities would include two separate types of housing: (1) 200 student families housing units (apartments), and (2) up to 1,200 additional beds for graduate, transfer, and undergraduate students. Student family housing would generally be located in the southeastern portion of the site while student apartments would be located in the northern portion of the site, closer to Russell Boulevard. Approximately 642,000 sf of new student housing would be constructed for a total of 555 units. The new housing facility would be up to six

stories in height and designed to complement the surrounding multi-family housing nearby, including across Russell Boulevard. Internal roadways within the Orchard Park site would allow for safe passage of one vehicle in each direction and shared bicycle access. Additionally, approximately 480 parking spaces would be provided for student vehicles, as well as one bicycle parking space per student; the expected number for the Orchard Park Redevelopment component is 1,400. Additionally, it was anticipated that some students, who may reside at the Orchard Park site, could use existing, underutilized parking lots within UC Davis or the offsite parking area located south of Interstate Highway 80 (I-80), evaluated as part of the West Village Expansion in Volume 2 of the 2018 LRDP EIR. It is anticipated that solar photovoltaic panels would be provided on-site within available surface parking lots and could also be provided on rooftops of on-site structures.

2.1.2 State CEQA Guidelines Regarding an Addendum

If, after certification of an EIR, minor technical changes or additions are necessary or none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR have occurred, an addendum to the EIR may be prepared.

Public Resources Code (PRC) Section 21166 and Sections 15162 through 15163 of the State CEQA Guidelines describe the conditions under which subsequent document would be prepared. In summary, when an EIR has been certified or a mitigated negative declaration (MND) adopted for a Project, no subsequent document shall be prepared for that Project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

- substantial changes are proposed in the Project that will require major revisions of the previous EIR or MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- substantial changes occur with respect to the circumstances under which the Project is undertaken that will require major revisions of the previous EIR or MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR or MND was certified as complete was adopted, shows any of the following:
  - the project will have one or more significant effects not discussed in the previous EIR or MND;
  - significant effects previously examined will be substantially more severe than shown in the previous EIR or MND;
  - mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR or MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15164 of the CEQA Guidelines provides that a lead agency may prepare an addendum to a previously adopted EIR if some changes or additions are necessary, but none of the conditions described above for Section 15162 calling for preparation of a subsequent document have occurred. CEQA allows lead agencies to restrict review of modifications to a previously approved project to the incremental effects associated with the proposed modifications, compared against the anticipated effects of the previously approved project at build-out.

Changes to the approved LRDP in connection with the Project and any altered conditions since certification of the EIR in July 2018 would:

- not result in any new significant environmental effects, and
- not substantially increase the severity of previously identified significant effects.

In addition, no new information of substantial importance has arisen that shows that:

- the Project would have new significant effects,
- the Project would have substantially more severe effects,
- mitigation measures or alternatives previously found to be infeasible would in fact be feasible, or
- mitigation measures or alternatives that are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment.

As described in Chapter 3 of this document, "Project Description," and Chapter 4, "Environmental Checklist for Supplemental Environmental Review," none of the conditions described above from Section 15162 calling for preparation of a subsequent document have occurred. Therefore, the differences between the approved LRDP, as described in the certified EIR, and the Project modifications now being considered constitute changes, consistent with CEQA Guidelines Section 15164, that may be addressed in an addendum to the EIR.

2.2 ORGANIZATION OF THE ADDENDUM

This addendum is organized into the following chapters:

Chapter 1 – Project Information: provides a summary of information about the Project, including Project location, lead agency, and contact information.

Chapter 2 – Introduction: summarizes the purpose of the addendum, the 2018 LRDP EIR, and this document's organization.

Chapter 3 – Project Description: includes a description of all elements of the Project triggering the addendum.

Chapter 4 – Environmental Checklist for Supplemental Environmental Review: includes an environmental checklist for each resource topic. This section of the addendum analyzes the potential effects on the existing physical environment from implementation of the proposed modifications, as compared to the approved 2018 LRDP. This analysis has been prepared to determine whether any of the conditions described above that would require preparation of a subsequent or supplemental EIR would occur as a result of the Project modification.

Chapter 5 – Applicable 2018 LRDP EIR Mitigation Measures: lists measures from the 2018 LRDP EIR that are applicable to the Project.

Chapter 6 – References: lists references used in the preparation of this document.

3 PROJECT DESCRIPTION

3.1 INTRODUCTION

This addendum describes the project-specific details of the proposed student housing development and offsite parking area and compares the environmental impacts that would occur under the current proposal to those that were previously identified in Volume 3 of the 2018 LRDP EIR.

3.2 PROJECT LOCATION

The approximately 5,300-acre UC Davis campus is located in Yolo and Solano Counties, approximately 72 miles northeast of San Francisco, 15 miles west of the City of Sacramento, and adjacent to the City of Davis (see Figure 3-1). The campus is composed of four geographical areas: the central campus, the south campus, the west campus, and Russell Ranch. Most classroom-based academic, office, laboratory, and extracurricular activities occur within the central campus. The central campus consists of approximately 900 acres and is bounded approximately by Russell Boulevard to the north, State Route (SR) 113 to the west, I-80 and the Union Pacific Railroad tracks to the south, and A Street to the east. The project site is located at the north end of UC Davis' central campus.

The main Orchard Park site is bounded by Russell Boulevard to the north, Orchard Park Drive to the east, Orchard Park Circle to the south, and SR 113 to the west (Figure 3-2). North of Russell Boulevard are the Pinon Apartments, La Casa de Flores Apartments, a vacant lot, and the University Court Apartments. Beyond Orchard Park Circle is open space which supports the Experimental College Community Garden and is home to the Baggins End Domes Cooperative Living Community. Across the intersection of Orchard Park Circle and Orchard Park Drive to the southeast are the Orchard Park Greenhouses, and across Orchard Park Drive to the east of the Orchard Park site are the Russell Park Apartments. Vehicular access to the Orchard Park site is primarily provided by Russell Boulevard to Orchard Park Drive east of the Orchard Park site.

The Orchard Park site, now vacant, was previously developed with a, 200-unit apartment complex, consisting of 22 two-story apartment buildings; a leasing office, tenant storage, and laundry building in the south portion of the Orchard Park site; a community center and laundry building and a maintenance workshop, paint shop, and laundry building in the western portion of the Orchard Park site; two tenant storage and laundry buildings and a telecommunication building in the northern portions of the Orchard Park site; and uncovered parking along the northern, southern, and eastern boundaries and in the western portion of the Orchard Park site. All of the existing structures, parking areas, and roads were demolished in February 2018. Approximately 50 trees (mostly heritage oaks) remain at the Orchard Park site.

The offsite parking area is located west of SR 113, north of the existing West Village residential development. The site is bounded by Acer Street to the south, Zelkova Street to the north, and allies on the east and west sides. The 1.75-acre offsite parking area is undeveloped but is graded with paved streets and street lighting.

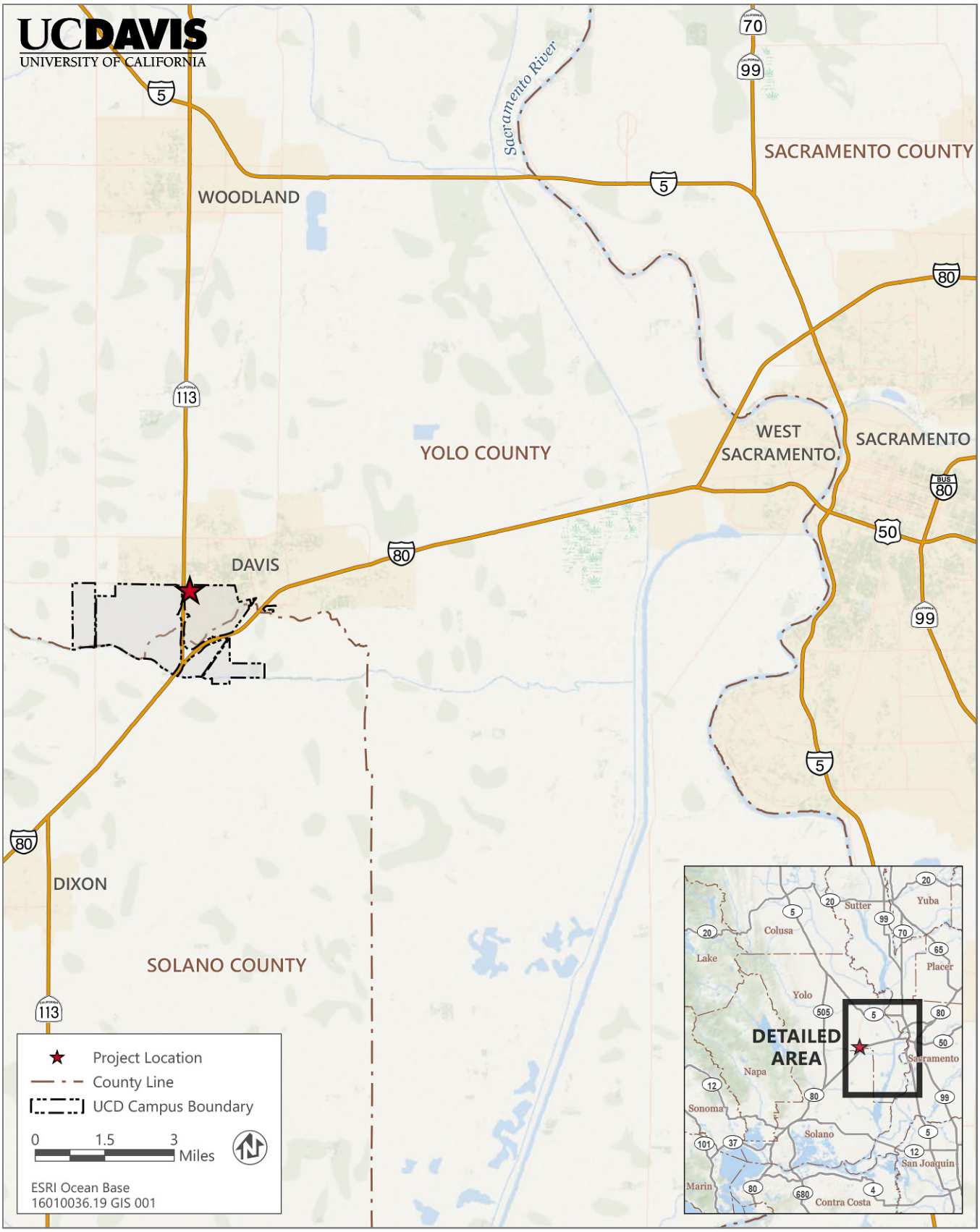

Figure 3-1 Regional Location

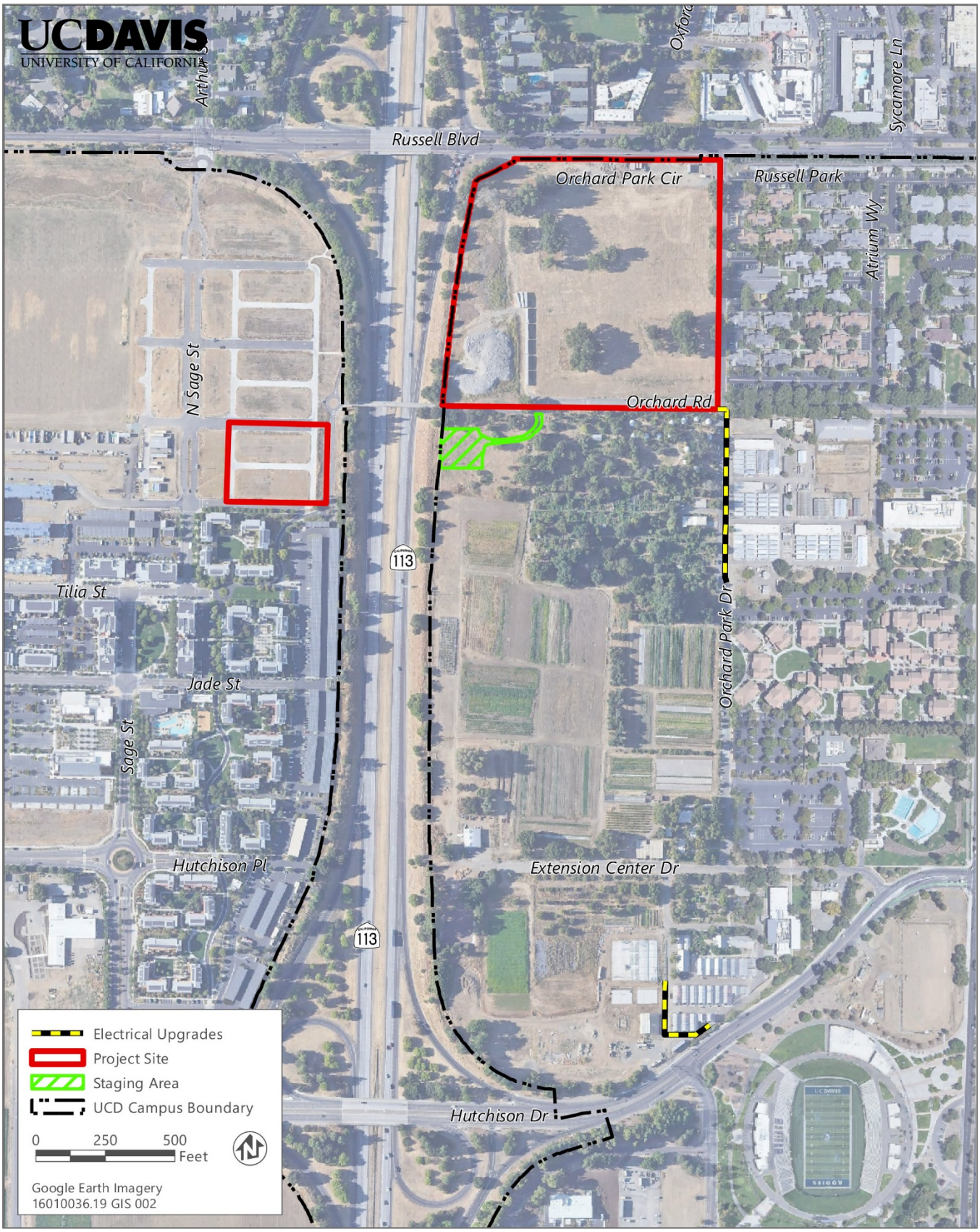

Figure 3-2 Project Location

3.3 ORCHARD PARK REDEVELOPMENT PROJECT MINOR MODIFICATIONS

Since certification of the 2018 LRDP EIR, UC Davis has engaged in a more detailed design of the proposed student housing development and has modified the approved details of this component of the Project.

3.3.1 Summary of Proposed Project Modifications

The Orchard Park Redevelopment Project would still include the construction of a replacement student housing facility at the Orchard Park site of the former Orchard Park Apartment Complex, as shown in Figure 3-3. The facility would include two separate types of housing as previously proposed; however, whereas Volume 3 of the 2018 LRDP EIR evaluated 200 student family apartments and up to 1,200 additional beds for graduate, transfer, and undergraduate students, the current Project proposes 126 student family apartments and up to 1,297 additional beds(see Table 3-1). The development would be within the 642,000 square feet (sf) of student housing previously analyzed; however, where Volume 3 of the 2018 LRDP EIR proposed the construction of 555 units supporting approximately 1,680 occupants, the current Project proposes 613 units supporting 1,599 occupants. The new housing facility would be up to four stories in height, as opposed to the previously contemplated six stories, and designed to complement the surrounding multi-family housing nearby. Additionally, approximately 480 parking spaces would be provided for student vehicles, as well as one bicycle parking space per occupant space; the expected number of bicycle parking for the Orchard Park Redevelopment component is 1,600.

Table 3-1 Orchard Park Redevelopment Project Housing Types

	Evaluated in 2018 LRDP EIR Units	Evaluated in 2018 LRDP EIR Occupants	Current Project Proposal Units	Current Project Proposal Occupants
Student Family Apartments	200	480	126	302
Additional Beds for Graduate, Transfer, And Undergraduate Students	355	1,200	487	1,297
Total	555	1,680	613	1,599

Source: Compiled by Ascent Environmental in 2020.

Up to 200 additional parking spaces would be made available at an offsite parking area located west of SR 113 (see Figure 3-4), whereas the previous proposed project contemplated providing all parking onsite or the offsite parking area located south of I-80. The parking area would include landscaping and trees. The landscaping area would also include bio-swales and small stormwater infiltration basins to capture, infiltrate, and offset increases in stormwater runoff generated by the paving of the offsite parking area. Additional stormwater capacity would be provided through the existing West Village stormwater system.

The Project would also include off-site utility work required for electrical upgrades to serve the Orchard Park site (see Figure 3-2). A new electrical trunk line would be installed along Orchard Park Drive; the approximately 625 foot line would run from Orchard Road to connect to an existing medium voltage vault north of the Colleges at La Rue Apartments. The new conduits would be installed approximately 4 feet deep; the trench would be up to 24 inches wide.

A second electrical upgrade would install an additional duct bank to an existing electrical conduit located north of the Hutchison Drive and Health Sciences Drive intersection. The approximately 365 feet of new conduit would be located completely within the Bowley Plant Science Teaching Facility. The trenching would be approximately 4 feet deep and up to 24 inches wide.

3.3.2 Construction Phasing and Staging

The construction staging area for the Orchard Park Redevelopment Project would be located south of the Orchard Park site and east of the Baggins End Domes (see Figure 3-2). The staging area would be accessed via Orchard Park Circle.

Construction of the Orchard Park Redevelopment Project would occur over a single 24-month phase and commence as early as April 2021. During construction, short-term and temporary road closures may occur in order to complete utility connections and upgrades, resulting in temporary traffic slowdowns or detours. Bicycle and pedestrian traffic would not be affected because the southern segment of Orchard Park Circle and sidewalks would not be closed and access to the SR 113 bike bridge would be maintained.

Occupancy and operation of the Orchard Park Redevelopment Project would be expected to occur in August 2023.

Figure 3-3 Orchard Park Redevelopment Project – Conceptual Site Plan

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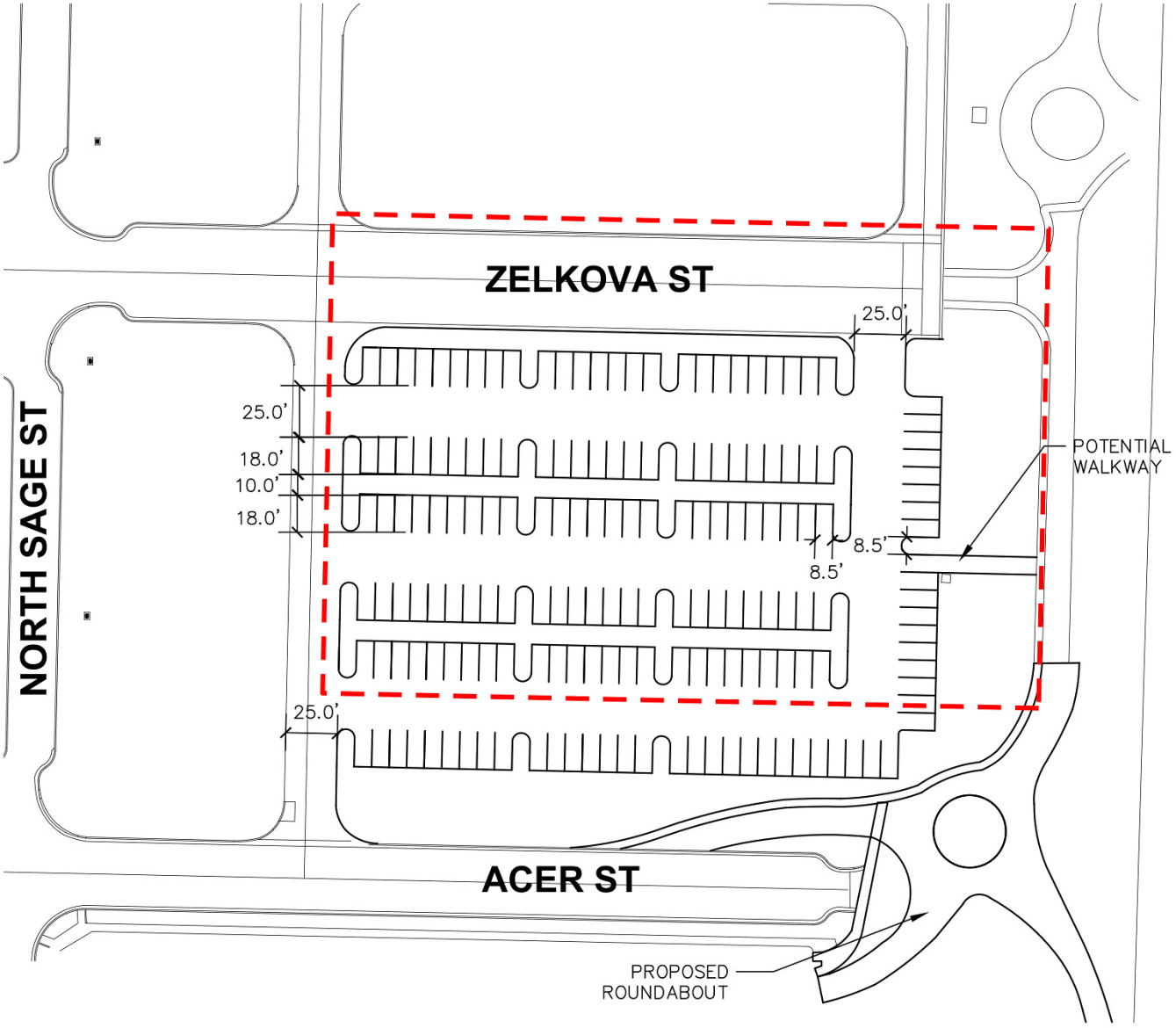

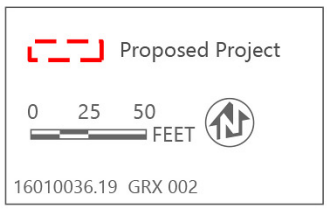

Figure 3-4 Orchard Park Redevelopment Project – Offsite Parking Plan

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4 ENVIRONMENTAL CHECKLIST FOR SUPPLEMENTAL ENVIRONMENTAL REVIEW

4.1 ENVIRONMENTAL REVIEW OF PROJECT ACTIVITIES

UC Davis has determined that, in accordance with PRC Section 21166 and Section 15164 of the State CEQA Guidelines, minor technical changes or additions to the EIR are necessary to address the modifications to the approved LRDP. An addendum to a certified EIR is prepared when changes to a Project are required, and the changes:

- will not result in any new significant environmental effects, and/or
- will not substantially increase the severity of previously identified effects.

The analysis of environmental effects provided below addresses the same impacts addressed in the 2018 LRDP EIR. The environmental analysis evaluates whether, for each environmental resource topic (e.g., land use, traffic, air quality), there are any changes in the Project or the circumstances under which it would be undertaken that would result in new or substantially more severe environmental impacts than considered in the 2018 LRDP EIR. The University has defined the column headings in the environmental checklist as follows:

Impact Examined in the 2018 LRDP EIR?: "Yes" is stated where the potential impacts of the Project were examined in the 2018 LRDP EIR. This document summarizes and cross references the relevant analysis in the 2018 LRDP EIR.

Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?: This question is answered with a "yes" or "no," as substantiated by the discussion provided below the table. If the response is "yes," additional CEQA analysis is required.

Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?: This question is answered with a "yes" or "no," as substantiated by the discussion provided below the table. If the response is "yes," additional CEQA analysis is required.

Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?: This question is answered with a "yes," "no," or "N/A," as substantiated by the discussion provided below the table. The answer N/A indicates there was no potential impact under the 2018 LRDP EIR and the Project does not change the impact conclusion. The 2018 LRDP EIR mitigation measures are summarized and cross referenced, and the mitigation measures applicable to the Project are summarized in Section 6 of this addendum.

4.1.1 Aesthetics

Section 3.1 of Volume 1 of the 2018 LRDP EIR evaluates the impacts of campus growth under the 2018 LRDP on aesthetics by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.1 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Aesthetics Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Have a substantial adverse effect on a scenic vista?	Yes	No	No	N/A
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Yes	No	No	N/A
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Yes	No	No	N/A
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes	No	No	Yes

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) The main Project site is located on the central campus, an urbanized area that is landscaped to a degree such that long-distance views of or through the Orchard Park site are precluded. Volume 3 of the 2018 LRDP EIR (page 3.1-2) concluded that no scenic vistas are present in the vicinity of the site that could be affected by implementation of the Orchard Park Redevelopment component. The proposed offsite parking area is currently undeveloped, disturbed open space that was formerly used for agriculture. Development of the offsite parking area would not impede any views of a scenic vista. As a result, the Project would not result in any new or substantial adverse changes to scenic view in the surrounding area. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required for the Project.

b) As explained on page 3.1-2 of Volume 3 of the 2018 LRDP EIR, I-80 and SR 113, the highways in the vicinity of the campus, are not designated as state scenic highways. Neither the campus nor the Project site is located near a state scenic highway. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required for the Project.

c) Impact 3.1-1 of Volume 3 of the 2018 LRDP EIR (less than significant) concluded that while the Orchard Park Redevelopment component would alter the visual character of the site from an undeveloped to developed use, the proposed Orchard Park Redevelopment would be consistent and similar in design to existing and surrounding housing development, as well as the previous developed condition of the site. Further, all new development is required to comply with the UC Davis Physical Design Framework and Campus Design Guide Manual, which establishes requirements intended to maintain important aesthetic features and compatibility with existing

visual conditions, including the installation of landscaping (both in terms of bulk and color) and exterior features consistent with adjacent development (e.g., exterior lighting and finishes). The Project is substantially similar to the previously evaluated Orchard Park Redevelopment component; the same site would be developed with student housing structures, although the structures would be up to four stories in height, as opposed to the six stories analyzed in the 2018 LRDP EIR. Similarly, while the proposed offsite parking area would be modified from an unpaved, undeveloped condition to a paved parking lot, it would be landscaped in a manner similar to the adjacent development of West Village. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

d) The main Orchard Park Project site currently consists of an undeveloped site with no lighting, although it was previously developed with student housing uses; the offsite parking area is undeveloped with some street lighting. Volume 3 of the 2018 LRDP EIR found that implementation of Orchard Park Redevelopment component would introduce new sources of light and glare associated with exterior building lights and potential night lighting of paved pathways throughout the student housing complex. Light and/or glare from development of the Orchard Park Redevelopment component could adversely affect day or nighttime views in the area (Impact 3.1-2 of Volume 3 of the 2018 LRDP; less than significant with mitigation). The Project is substantially similar to the Orchard Park Redevelopment component; the same site would be developed with student housing structures. The exterior lighting would be limited to building entrances, lighting along walkways, and lighting for the parking area. Security lighting would be installed at the offsite parking area and would be consistent with existing parking lot lighting. In compliance with OPR Mitigation Measure 3.1-2(a), the Project would use textured nonreflective exterior surfaces and nonreflective glass. Consistent with OPR Mitigation Measure 3.1-2(b) the all new outdoor lighting would utilize directional lighting methods with shielded and cutoff type light fixtures to minimize glare and upward directed lighting such that light spillover onto adjacent structures does not occur. The Campus Design Review Committee would also review the Project's use of non-directional lighting design to ensure that no adverse effects on nighttime views occur. Consistent with Impact 3.1-2 of Volume 3 of the 2018 LRDP, with implementation of OPR Mitigation Measures 3.1-2(a) and (b), which are included in the Project, it would have a less-than-significant light and glare impact. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

4.1.2 Agricultural and Forestry Resources

Section 3.2 of Volume 1 of the 2018 LRDP EIR evaluates the effects of campus growth under the 2018 LRDP on agricultural and forestry resources by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.2 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Agricultural & Forestry Resources Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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?	Yes	No	No	N/A
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes	No	No	N/A
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))?	Yes	No	No	N/A
d) Result in the loss of forest or agricultural land or conversion of forest land to non-forest or non-agricultural use?	Yes	No	No	N/A
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?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) As described on page 3.2-2 of Volume 3 of the 2018 LRDP EIR, the main Orchard Park site is located on previously developed land designated as Student Housing, within the campus boundary. The previous analysis concluded that the Orchard Park Redevelopment component would not result in the conversion of important farmland, and therefore, there would be no impact. The Project as proposed now includes an offsite parking area located offsite designated as Faculty & Staff Housing, within the campus boundary. This 1.75-acre area is highly disturbed open space that has not been used for agricultural purposes for more than 10 years, based on review of aerial imagery. The parking area is considered Important Farmland, as shown in Figure 3.2-1 of Volume 1 of the 2018 LRDP EIR and is discussed under Impact 3.2-1. Implementation of Mitigation Measure 3.2-1 would require the preservation of equivalent acreage, though the impact would remain significant and unavoidable. Because the main Orchard Park site would not

result in the conversion of important farmland and the offsite parking area was addressed under Impact 3.2-1 of Volume 1 of the 2018 LRDP EIR, no new or substantially more severe impacts would occur and no additional mitigation would be required.

b) Campus lands are state lands and are not eligible for Williamson Act agreements, nor are they subject to local zoning controls. Therefore, this issue is not relevant to the 2018 LRDP or to the Project.

c) None of the campus lands are zoned or otherwise designated as forest land or timber-production lands. Therefore, this issue is not relevant to the 2018 LRDP or to the Project.

d) As described in criterion (c) above, there are no forest lands within the UC Davis campus, including the Project site. As described in criterion (a) above, no agricultural land uses exist within or immediately adjacent to the Project site. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

e) As described on page 3.2-2 of Volume 3 of the 2018 LRDP EIR, land uses surrounding the Orchard Park site consist of existing urban development. The Orchard Park site is currently undeveloped but was previously developed as student housing. The offsite parking area is currently undeveloped, but has been graded and contains paved streets. Implementation of the Orchard Park Redevelopment component would result in new student housing. No conversion or loss of agricultural land or uses would occur. The Project would not involve any changes that could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

4.1.3 Air Quality

Section 3.3 of the 2018 LRDP EIR addresses the air quality effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.3 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Air Quality Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Conflict with or obstruct implementation of the applicable air quality plan?	Yes	No	No	Yes
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Yes	No	No	Yes
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Yes	No	No	Yes
d) Expose sensitive receptors to substantial pollutant concentrations?	Yes	No	No	Yes
e) Create objectionable odors affecting a substantial number of people?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,b,c) Emissions of criteria air pollutants and precursors associated with Project construction and operational are discussed separately below.

Construction-Generated Emissions of Criteria Air Pollutants and Precursors

2018 LRDP EIR Volume 3 Impact 3.3-1 disclosed that construction under the 2018 LRDP would result in emissions of in reactive organic gases (ROG), nitrous oxides (NO_X), and particulate matter with an aerodynamic diameter of 10 microns or smaller (PM_{10}), and fine particulate matter with an aerodynamic diameter of 2.5 microns or smaller ($PM_{2.5}$). Construction-related emissions would occur from the operation of heavy-duty off-road equipment, material delivery, construction worker commute exhaust emissions, and asphalt paving. Minimal grading activity would occur because the Project site was graded in 2017. Emissions of PM_{10} were anticipated to exceed Yolo-Solano Air Quality Management District's (YSAQMD) thresholds starting in 2018. The majority of PM_{10} emissions were anticipated to be from the release of fugitive dust from haul truck and worker commute trips that occur on unpaved roads.

Fugitive dust emissions, including PM_{10} and $PM_{2.5}$, would be generated during site preparation and vary as a function of soil silt content, soil moisture, wind speed, and area of disturbance. Exhaust emissions of PM_{10} and $PM_{2.5}$ would result from combustion of fuels. Ozone precursor emissions would primarily be associated with exhaust from construction equipment, haul truck trips, and worker commute trips. Emissions of ROG would also be generated during asphalt paving and the application of architectural coatings.

Volume 3 of the 2018 LRDP EIR documented the overall expected construction emissions at the Project site and identified, on an annual basis, that construction of the Orchard Park Redevelopment from 2018 through 2020 could result in significant impacts related to the emissions of PM_{10}. The air quality analysis in Volume 3 of the 2018 LRDP EIR accounted for the construction of up to 555 multi-family residential dwelling units (200 family housing units and 355 graduate student units, up to a total of 642,000 square feet) and 480 on-site parking spaces. The updated analysis for construction of the Project would begin in April 2021 instead of in 2018 and the Project would reallocate the distribution of dwelling units to 487 graduate housing units and 126 family housing units, increasing the total number of units to 613. The Project would not change the total building square footage that would be constructed compared to the analysis in Section 3.3 of Volume 3 of the 2018 LRDP EIR.

Additionally, a 1.75-acre offsite parking lot would be constructed west of the Project site across SR 113 and directly north of the current West Village development. Construction of this new parking lot is anticipated to occur during the second half of construction of the Orchard Park Redevelopment Project, starting in 2022 and would last less than one year. The 1.75-acre parking lot was not analyzed in the 2018 LRDP. The site of the offsite parking lot is currently graded and would only require minimal site preparation.

Table 4-1 compares the construction emissions estimates between the previous 2018 LRDP EIR analysis and the Project as currently proposed.

Table 4-1 Summary of Modeled Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction Activities - Unmitigated

Year of Construction	Annual Emissions ROG (ton/year)	Annual Emissions NO_X (ton/year)	Maximum Daily Emissions PM_{10} (lb/day)	Maximum Daily Emissions $PM_{2.5}$ (lb/day)[a]
Previous 2018 LRDP EIR Analysis				
2018	0.3	2.1	89.3	10.7 (2.4) [b]
2019	0.5	3.8	89.1	10.5 (1.0) [b]
2020	4.2	1.1	89.0	10.7 (0.8) [b]
YSAQMD Thresholds of Significance	10	10	80	NA
Exceed Threshold of Significance?	No	No	Yes	NA
Updated Analysis				
2021	0.4	2.9	102.1	11.7 (1.8) [b]
2022	0.4	3.0	101.9	11.6 (0.6) [b]
2023	4.1	0.1	17.7	1.9 (0.4) [b]
YSAQMD Thresholds of Significance	10	10	80	NA
Exceed Threshold of Significance?	No	No	Yes	NA

Year of Construction	Annual Emissions ROG (ton/year)	Annual Emissions NO_X (ton/year)	Maximum Daily Emissions PM_{10} (lb/day)	Maximum Daily Emissions $PM_{2.5}$ (lb/day)[a]
Difference				
First Year	+0.1	+0.8	+12.8	+1.0 (-0.6) [b]
Second Year	-0.1	-0.8	+12.8	+1.1 (-0.4) [b]
Third Year	-0.1	-1.0	-79.35	-8.8 (-0.4) [b]

Notes: Modeled values represent maximum daily and annual emissions that would occur over the duration of the construction period. See Appendix C for detail on model inputs, assumptions, and project specific modeling parameters.

ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic; diameter of 10 micrometers or less; $PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; lb/day = pounds per day; NA = not available; YSAQMD = Yolo Solano Air Quality Management District

[a] Although YSAQMD does not recommend $PM_{2.5}$ thresholds, estimates of $PM_{2.5}$ emissions, which are a subset of PM_{10} emissions, are shown for information purposes only.

[b] Numbers in parenthesis represent the portion of $PM_{2.5}$ emissions from exhaust. Numbers not in parenthesis represent fugitive and exhaust emissions combined.

Source: Modeling conducted by Ascent Environmental in 2018 and 2020

As shown in Table 4-1, construction of the Project would change temporary construction emissions from those evaluated in Volume 3 of the 2018 LRDP EIR. Depending on the pollutant on the year of constructions, emissions could be higher or lower than previously analyzed for three main reasons. First, the construction, vendor, and worker fleet will have a newer vehicle and equipment mix due to construction starting in 2021 rather than in 2018. Newer vehicles and equipment emit less pollutants per mile than older vehicles and equipment because of manufacturers' compliance with increasingly stringent tailpipe emissions standards from the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA). Second, however, the revised Project would add an additional 1.75-acre parking lot that was not previously analyzed, and which would result in additional construction activity, such as more equipment, worker commute trips, and haul truck trips. Third, the shift in construction schedule would mean that more construction activity would occur in the first calendar year of construction (2021) and less would occur in the last calendar year of construction (2023).

Emissions of ROG, NO_X, and $PM_{2.5}$ would not change substantially from the previous analysis; however, emissions of PM_{10} would increase by about 14 percent from about 89 pounds per day to 102 pounds per day. This is primarily due to fugitive dust emissions along unpaved roadways from additional worker, vendor, and haul trips, associated with the added offsite parking lot. PM_{10} emissions related to construction already exceeded YSAQMD's threshold of 80 pounds per day in the previous analysis, and this threshold would continue to be exceeded under the Project. Thus, prior to mitigation, impacts would remain potentially significant.

As required by OPR Mitigation Measure 3.3-1, UC Davis would reduce emissions of PM_{10} by requiring the Project contractor to implement emissions reduction measures, such as requiring paved parking areas for construction workers, which reduces fugitive dust emissions from travel on unpaved roads. Implementation of this mitigation measure would result in changes shown in Table 4-2. Volume 3 of the 2018 LRDP EIR Impact 3.3-1 determined that construction at the Project site, with implementation of OPR Mitigation Measure 3.3-1, would not generate construction-related emissions of PM_{10} that exceed YSAQMD significance criteria. As shown in Table 4-2, the changes to the Project in this analysis would not change this conclusion. No additional mitigation is necessary to reduce the Project's contribution to these impacts.

Table 4-2 Summary of Modeled Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction Activities – Mitigated

Year of Construction	Annual Emissions ROG (ton/year)	Annual Emissions NO_X (ton/year)	Maximum Daily Emissions PM_{10} (lb/day)	Maximum Daily Emissions $PM_{2.5}$ (lb/day) [a]
Previous 2018 LRDP EIR Analysis				
2018	0.1	1.4	6.4	3.0 (1.3) [b]
2019	0.4	3.1	6.4	2.1 (0.8) [b]
2020	2.1	0.9	6.4	2.0 (0.7) [b]
YSAQMD Thresholds of Significance	10	10	80	NA
Exceed Threshold of Significance?	No	No	No	NA
Updated Analysis				
2021	0.4	2.9	7.3	2.6 (1.3) [b]
2022	0.4	3.0	7.3	2.2 (0.7) [b]
2023	4.1	0.1	0.9	0.6 (0.5) [b]
YSAQMD Thresholds of Significance	10	10	80	NA
Exceed Threshold of Significance?	No	No	No	NA
Difference				
First Year	+0.3	-1.5	+0.9	-0.4 (0.0) [b]
Second Year	0.0	-0.1	+0.9	+0.1 (-0.1) [b]
Third Year	+2.0	-0.8	+5.5	-0.4 (-0.2) [b]

Notes: Modeled values represent maximum daily and annual emissions that would occur over the duration of the construction period. See Appendix C for detail on model inputs, assumptions, and project specific modeling parameters.

ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; lb/day = pounds per day; NA = not available; YSAQMD = Yolo Solano Air Quality Management District

[a] Although YSAQMD does not recommend $PM_{2.5}$ thresholds, estimates of $PM_{2.5}$ emissions, which are a subset of PM_{10} emissions, are shown for information purposes only.

[b] Numbers in parenthesis represent the portion of $PM_{2.5}$ emissions from exhaust. Numbers not in parenthesis represent fugitive and exhaust emissions combined.

Source: Modeling conducted by Ascent Environmental in 2018 and 2020

Long-Term Operational Emissions of Criteria Air Pollutants and Precursors

Volume 3 of the 2018 LRDP EIR Impact 3.3-2 determined that long-term operational emissions related to the 2018 LRDP would not exceed YSAQMD significance thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$. Consistent with the 2018 LRDP EIR, the Project would also implement the University of California Sustainable Practices Policy, which encompasses nine areas of sustainable practices to be implemented by all campuses within the UC system: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, sustainable foodservice, sustainable water systems. Specifically, new buildings are intended to meet LEED Silver and are targeting to achieve LEED Gold.

Project-related vehicle trips, operational maintenance activities, and energy consumption would result in operational emissions of criteria air pollutants and precursor emissions. Although the Project would result in an increase of 58 residential units over the number of units analyzed in Volume 3 of 2018 LRDP EIR, the total number of occupants would be reduced by 81 persons. The previous analysis assumed the Orchard Park Redevelopment would support 1,200 student beds and an additional 200 students and their dependents. Thus, the estimated daily vehicle miles travelled associated with Orchard Park residents would remain unchanged, even with the addition

of the offsite parking lot. However, the increase in residential units would increase area source and on-site energy use-related emissions due to increased architectural coating needed for additional walls, additional use of consumer products (e.g., cleaning solutions), and additional natural gas appliances. The Project would not result in an increase in natural gas use for space heating because the total building square footage would not change. The additional offsite parking lot would increase operational emissions slightly from the increased architectural coatings from repainting parking stripes and additional use of landscaping equipment associated with additional landscaping area at the offsite parking lot, as assumed in CalEEMod.

Mobile emissions are expected to be slightly lower than previously analyzed. While the vehicle miles travelled, associated with new residents at the Project, is expected to be the same as analyzed in Volume 3 of 2018 LRDP EIR Impact 3.3-2, the Project would begin operations in 2023 rather than in 2021. This means that the vehicle mix at the start of operations of the Project would be slightly newer than previously analyzed. Newer vehicles emit less pollutants per mile than older vehicles because of vehicle manufacturers' compliance with increasingly stringent CARB and EPA tailpipe emissions standards. These updated mobile emissions estimates were based on 2023 emissions factors from CARB's emission factor model (EMFAC) (v. EMFAC 2017). In addition, these emission factors were adjusted to account for the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program" adopted by the EPA and the National Highway Traffic Safety Administration (NHTSA) in September 2019 (EPA 2019). The SAFE Vehicle Rule Part One repeals California's authority to administer its Zero-Emission Vehicle mandate and rolls back the state's vehicle greenhouse gas (GHG) emission and fuel economy standards. In November 2019, CARB published off-model adjustment factors to apply to emission factor forecasts in EMFAC, which slightly increase the estimates of light duty vehicle emission factors for calendar year 2023 by between 0.01 and 0.05 percent for NO_X, ROG, and PM (CARB 2019). These adjustment factors were applied to the Project's 2023 mobile emissions estimates.

The changes in emissions from mobile, area, and energy sources are shown in Table 4-3.

Table 4-3 Summary of Modeled Emissions of Criteria Air Pollutants and Precursors Associated with Orchard Park Redevelopment Component Operation – Unmitigated

Year of Construction	Annual Emissions ROG (ton/year)	Annual Emissions NO_X (ton/year)	Maximum Daily Emissions PM_{10} (lb/day)	Maximum Daily Emissions $PM_{2.5}$ (lb/day) [a]
Previous Analysis (Operational Year 2021)				
Area Sources[b]	3.1	<0.1	0.3	0.3
Natural Gas	0.6 (<0.1)[c]	0.2	0.1	0.1
Mobile	3.6 (0.6)[c]	0.8	0.8	0.4
Total	3.6	1.1	1.2	0.7
YSAQMD Thresholds of Significance	10	10	80	NA
Exceed Threshold of Significance?	No	No	No	NA
Updated Analysis (Operational Year 2023)				
Area Sources[b]	3.1	0.1	0.3	0.3
Natural Gas	<0.1	0.2	0.1	0.1
Mobile[d]	0.5	0.6	0.8	0.4
Total	3.6	0.9	1.2	0.8
YSAQMD Thresholds of Significance	10	10	80	NA

Year of Construction	Annual Emissions ROG (ton/year)	Annual Emissions NO_X (ton/year)	Maximum Daily Emissions PM_{10} (lb/day)	Maximum Daily Emissions $PM_{2.5}$ (lb/day) [a]
Exceed Threshold of Significance?	No	No	No	NA
Difference				
Area Sources[b]	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0
Mobile[d]	-0.1[e]	-0.2	0.0	0.0
Total	**-0.1**	**-0.2**	0.0	0.0

Note: Summation may not equal totals because of rounding.

ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less; tpy = tons per year; lbs/day = pounds per day; NA = not available; YSAQMD = Yolo County Air Quality Management District

[a] Although YSAQMD does not recommend $PM_{2.5}$ thresholds, estimates of $PM_{2.5}$ emissions, which are a subset of PM_{10} emissions, are shown for information purposes only.

[b] Includes architectural coating, consumer products, and landscaping emissions. PM emissions are related to landscaping activity.

[c] The 2018 LRDP EIR misreported this as 3.6 tons per year. The correct values are shown in parentheses. See page 17 of Appendix C to the 2018 LRDP EIR.

[d] Includes adjustments to light duty vehicle emission factors associated with the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program.

[e] This shows the difference from the corrected Draft EIR value.

Source: Data provided by Ascent Environmental in 2018 and 2020 based on modeling using CalEEMod v. 2016.3.2, VMT data provided by Fehr & Peers in 2018, and emission factors from EMFAC2017.

As discussed on page 3.3-6 of Volume 3 of the 2018 LRDP EIR, although the project-level impact of operational emissions is less than significant, the Orchard Park Redevelopment component is subject to ORP Mitigation Measure 3.3-2 because the Project is part of the 2018 LRDP and the plan-level emissions are potentially significant under 2018 LRDP. As required by ORP Mitigation Measure 3.3-2, UC Davis shall implement strategies to reduce mobile-source criteria air pollutants and precursors through reductions in single occupancy fossil-fuel-powered vehicle trips (e.g., promoting the use of electric vehicles, carpool, transit vehicles; incentivizing carpool through access to premium parking locations on campus; and promotion of the use of electric vehicles and clean fuels for vendors on campus). OPR Mitigation Measure 3.3-2 would result in lower emissions although the degree to which they would reduce is uncertain, as noted in Impact 3.3-2 of Volume 1 regarding the 2018 LRDP. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

d) Construction-Generated Emissions of Toxic Air Contaminants

Impact 3.3-3 of Volume 3 of the 2018 LRDP EIR determined that construction activities would result in temporary, short-term Project-generated emissions of toxic air contaminants (TACs), particularly diesel PM, that could expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a hazard index greater than 1.0 (less than significant with mitigation). As required by OPR Mitigation Measure 3.3-3, UC Davis shall require the Project contractor to locate diesel-powered equipment away from sensitive receptors as possible, reduce equipment idling times, use equipment with EPA-rated Tier 3 engine ratings or better, and use alternatively-fueled equipment if available to further reduce TAC emissions. Therefore, no new or substantially more severe impacts would occur and no new mitigation measures would be required.

Land Use Compatibility with Offsite Sources of Toxic Air Contaminants and Ultrafine Particulates

As discussed on page 3.3-3 of Volume 3 of the 2018 LRDP EIR, impacts related to substantial pollutant concentrations (carbon monoxide [CO] and toxic air contaminants [TACs]) during operation of land uses identified under the 2018 LRDP, including the Orchard Park Redevelopment component were determined to be less than significant. The Project would be residential in nature, and would not construct any new stationary sources, such as boilers and laboratories, that would generate substantial TACs. Furthermore, the Orchard Park Redevelopment site would not be located proximate to I-80 or potential sources of substantial ultra-fine particulates (UFPs), and impacts related to health risks associated with UFPs would not occur as a result of implementation of the Project. Therefore, the Project would not result in new or substantially more severe impacts, and no mitigation would be required.

e) As discussed on page 3.3-3 of Volume 3 of the 2018 LRDP EIR, as a student housing development, no unique or substantial odors are anticipated as a result of implementation of the Orchard Park Redevelopment component. The Project would not result in additional and/or potentially significant impacts. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

4.1.4 Archaeological, Historical, and Tribal Cultural Resources

Section 3.4 of Volume 1 of the 2018 LRDP EIR addresses the effects of campus growth under the 2018 LRDP on archaeological, historical, and tribal cultural resources by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.4 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Archaeological, Historical, & Tribal Cultural Resources Would the Project…	**Impact Examined in 2018 LRDP EIR?**	**Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?***	**Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?**	**Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?**
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	Yes	No	No	N/A
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Yes	No	No	Yes
c) Disturb any human remains, including those interred outside of formal cemeteries?	Yes	No	No	N/A
d) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) As described on page 3.4-2 of Volume 3 of the 2018 LRDP EIR, no historic architectural resources were identified on the Orchard Park site. The site is undeveloped; the offsite parking area is similarly undeveloped. Therefore, construction and operation of the Orchard Park Redevelopment

component would have no impact on historical resources. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required for the Project.

b) Volume 3 of the 2018 LRDP EIR found that although there are no known archaeological resources on the main Orchard Park Redevelopment site, ground-disturbing activities could result in discovery or damage of as yet undiscovered archaeological resources as defined in CEQA Guidelines Section 15064.5 (Impact 3.4-1 of Volume 3 of the 2018 LRDP; less than significant with mitigation). The offsite parking area was originally part of the 460-acre Neighborhood Master Plan project. As discussed on page 3.4-1 of Volume 2 of the 2018 LRDP EIR, the area was surveyed in 2003 with additional monitoring between September 2009 and September 2010; no archaeological resources have been identified in the area. The electrical upgrade work to be located within the Bowley Plant Science Teaching Facility is located within the area of archaeological sensitivity, as identified on Exhibit 3.4-1 of the 2018 LRDP EIR.

   In compliance with 2018 LRDP EIR Mitigation Measure 3.4-1a(3), because the electrical upgrade work is located within the area of archaeological sensitivity, the campus shall retain a qualified archaeologist to conduct a subsurface investigation to determine whether buried archaeological materials are present. In compliance with OPR Mitigation Measure 3.4-1, the Project would identify and protect unknown archaeological resources by requiring contractor crews to attend a training session regarding how to recognize archaeological sites and artifacts and what steps shall be taken to avoid impacts to those sites and artifacts. In addition, the Project would be required to protect, identify, and assess any archaeological material uncovered during construction. With implementation of these previously-adopted 2018 LRDP EIR mitigation measures, currently undiscovered archaeological resources would be avoided, recorded, or otherwise treated appropriately, in accordance with pertinent laws and regulations. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

c) Consistent with the discussion on page 3.4-2 of Volume 3 of the 2018 LRDP EIR, although unlikely, the Project has the potential to disturb human remains, including those interred outside of formal cemeteries. Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

d) As discussed on pages 3.4-2 and 3.4-3 of Volume 3 of the 2018 LRDP EIR, no resources identified as tribal cultural resources (TCRs) as described under Assembly Bill B 52 were identified. Because no resources meet the criteria for a TCR under PRC Section 21074, this impact would less than significant. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required for the Project.

4.1.5 Biological Resources

Section 3.5 of the 2018 LRDP EIR addresses the effects of campus growth and development under the 2018 LRDP on biological resources by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.5 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Biological Resources Would the Project…	**Impact Examined in 2018 LRDP EIR?**	**Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?***	**Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?**	**Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Yes	No	No	Yes
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 Wildlife or US Fish and Wildlife Service?	Yes	No	No	N/A
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?	Yes	No	No	N/A
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?	Yes	No	No	N/A
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes	No	No	N/A
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?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) The project site includes the main Orchard Park project site and an offsite parking area on the west side of SR 113 along Acer Street and Zelkova Street. Volume 3 of the 2018 LRDP EIR defines the project site as urban landscaping /developed habitat (2018 LRDP EIR Exhibit 3.5-1).

The former Orchard Park apartments on the Orchard Park project site were demolished in February 2018. The project site, including the staging area, currently contains ruderal grassland habitat interspersed with large trees, including cork oak (*Quercus suber*) and valley oak (*Quercus lobata*). The offsite parking area contains roads and sparsely vegetated/barren areas lined with concrete. These areas contain sparse weedy vegetation and nonnative grasses. Volume 3 of the 2018 LRDP EIR found that the Orchard Park Redevelopment component could potentially result in the loss of special status wildlife species (2018 LRDP EIR Volume 3 Impact 3.5-1 through 3.5-2). Based on reconnaissance-level surveys for biological resources of the project site on February 10, 2020 and February 26, 2020, and a review of the sensitive plant and wildlife species within the vicinity of the project site (CNDDB 2020, CNPS 2020), there is potential for burrowing owl to occur within the Orchard Park project site, and for Swainson's hawk, white-tailed kite, and other nesting birds (non-special-status) to occur within and adjacent to the Orchard Park project site and adjacent to the offsite parking area. The Project areas do not support habitat for special-status plants and thus would have no impact on special-status plant species.

Burrowing owls are known to occur on the UC Davis campus within approximately 1 mile of the project site (CNDDB 2020). The Orchard Park project site and staging area contain potentially suitable grassland habitat for this species. The offsite parking area does not contain suitable habitat for burrowing owl as the sparsely vegetated/barren areas are highly disturbed with compacted soil. Mitigation Measure 3.5-5a from Volume 1 of the 2018 LRDP EIR would be implemented as part of the project to prevent disturbance to active burrowing owl nests within the Orchard Park project site and staging area. Therefore, no new or substantially more severe impacts would occur and no additional mitigation is required.

Swainson's hawks and white-tailed kites are known to nest within approximately 0.4 and 1.7 miles of the project site, respectively (CNDDB 2020). Potentially suitable nesting habitat for both species is present within and adjacent to the Orchard Park project site and staging area, and adjacent to the offsite parking area within large trees. The trees within and adjacent to both the Orchard Park project site and staging area, and offsite parking area could also provide suitable nesting habitat for common native songbirds that are not special-status species but are protected by the federal Migratory Bird Treaty Act and California Fish and Game Code. Project construction activities, including vehicle use, ground disturbing activities, construction crews within close proximity of nesting trees, and disturbance to (e.g., pruning, trimming) or removal of nesting trees could result in a potentially significant impact to these species if present. OPR Mitigation Measure 3.5-1 would be implemented as part of the project to prevent disturbance to active Swainson's hawk, white-tailed kite, other raptor nests, and other common native songbird nests. Therefore, no new or substantially more severe impacts would occur and no additional mitigation is required.

There is one known historic (1964) occurrence of pallid bat within approximately 1 mile northeast of the project site (CNDDB 2020). While the project site provides only marginally suitable habitat for this species, pallid bat could roost within large trees (e.g., cork oak, valley oak) and disturbance to (e.g., pruning, trimming) or removal of these trees could result in loss or disturbance of roosting bats. OPR Mitigation Measure 3.5-2 would be implemented as part of the project to prevent disturbance to active pallid bat roosts as a result of tree pruning, trimming, or removal. Therefore, no new or substantially more severe impacts would occur and no additional mitigation is required.

b,c) As described on pages 3.5-3 through 3.5-4 of Volume 3 of the 2018 LRDP, impacts to riparian habitat and federally protected wetlands were not evaluated further, because there are no wetlands, streams, creeks, or associated riparian habitats within the project site. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

d) As described on page 3.5-4 of Volume 3 of the 2018 LRDP, impacts to wildlife corridors and nurseries were not evaluated further, because project plans did not include any development or conversion of Putah Creek or its associated riparian habitat. The Orchard Park Redevelopment component is unlikely to result in impacts to wildlife corridors or nurseries. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

e) Impact 3.5-3 of Volume 3 of the 2018 LRDP EIR determined that the Orchard Park Redevelopment component could result in the removal of "Specimen" trees, which are recognized to meet UC Davis standards for important trees. "Specimen" trees are defined as healthy trees of high value to campus due to their size, species, extraordinary educational and research value, and other exceptional local importance. The project site also contains three "Heritage" trees, or healthy valley oak trees with trunk diameters of 33 inches or greater at a height of 54 inches from the ground. These "Heritage" trees are not planned for removal.

   Within the Orchard Park Redevelopment site, one tree, a cork oak that was determined to be in poor health, will be removed during the construction phase of this project (Tree Associates 2020). This tree is not considered a "Heritage" or "Specimen" tree. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

f) The Yolo Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) was approved on October 30, 2018. UC Davis is currently not a participant in the HCP/NCCP but is a trustee agency. As discussed in Volume 3 of the 2018 LRDP EIR, impacts as a result of consistency with the Yolo HCP/NCCP were not evaluated further, because impacts to species identified in these plans would be mitigated to less-than-significant levels through mitigation measures in Volume 3 of the 2018 LRDP EIR. Therefore, Volume 3 of the 2018 LRDP would not conflict with these proposed plans. Therefore, no new or substantially more severe impacts would occur.

4.1.6 Energy

Section 3.6 of the 2018 LRDP EIR addresses the energy impacts of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.6 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Energy Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Result in unnecessary, inefficient, and wasteful use of energy?	Yes	No	No	N/A
b) Conflict, or create an inconsistency, with any applicable plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects related to energy use?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,b) Consistent with 2018 LRDP EIR Volume 3 Impact 3.6-1 (less than significant), the one-time energy expenditure required to construct the Project would be nonrecoverable. Most energy consumption would result from operation of heavy-duty construction equipment and on-road vehicle trips associated with commutes by construction workers and haul trucks trips. Idling of onsite heavy-duty diesel-powered equipment during construction would be limited to no more than five minutes in accordance with YSAQMD requirements. Further, onsite construction equipment may include alternatively-fueled vehicles (such as natural gas or electric) where feasible, and the selected construction contractors would use the best available engineering techniques, construction and design practices, and equipment operating procedures.

As discussed in 2018 LRDP EIR Impact 3.6-2, development under the 2018 LRDP would exceed Title 24 Building Energy Efficiency Standards to reduce energy use, which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building installation and roofing, and lighting. In addition, federal and State regulations including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program would reduce the transportation fuel demand. Project adherence to the increasingly stringent building and vehicle efficiency standards as well as 2018 LRDP design features consistent with UC Carbon Neutrality goals would reduce energy consumption to be consistent with applicable plans, policies, and regulations adopted for avoiding or mitigating environmental effects related to energy. The Project-related energy use would not be considered inefficient, wasteful, or unnecessary. No new or substantially more severe impacts would occur and no mitigation would be required.

4.1.7 Geology, Soils, and Seismicity

Section 3.7 of the 2018 LRDP EIR addresses the geology, soils, and seismicity effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.7 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Geology, Soils, & Seismicity Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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.	Yes	No	No	N/A
ii) Strong seismic ground shaking?	Yes	No	No	N/A
iii) Seismic-related ground failure, including liquefaction?	Yes	No	No	N/A
iv) Landslides?	Yes	No	No	N/A
b) Result in substantial soil erosion or the loss of topsoil?	Yes	No	No	Yes
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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	Yes	No	No	N/A
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?	Yes	No	No	N/A
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Yes	No	No	N/A
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Yes	No	No	N/A

Geology, Soils, & Seismicity Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
g) 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?	Yes	No	No	N/A
h) 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?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,i) As stated on page 3.7-2 of Volume 3 of the 2018 LRDP EIR, the campus, including the Orchard Park Redevelopment site and remote parking area, is not located within an Alquist-Priolo Earthquake Fault Zone, and therefore is not subject to surface fault rupture. This issue is not relevant to the Project.

a,ii, iii) Volume 3 of 2018 LRDP EIR concluded that compliance with the CBC would reduce potential impacts associated with seismic activity, including the risk of liquefaction, to a less-than-significant level. As with the Orchard Park Redevelopment component, the Project would conduct a geotechnical investigation of the site which would provide specific recommendations regarding foundations types and other considerations for the final design of each structure, in compliance with the CBC. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

a,iv) As stated on page 3.7-2 of Volume 3 of the 2018 LRDP EIR, because of the level topography and lack of significant slopes, development of the Orchard Park site and offsite parking area would not be subject landslides. Therefore, this issue is not relevant to the Project.

b) Volume 3 of the 2818 LRDP EIR determined that construction-related erosion was less than significant because of compliance with the CBC provisions regarding soil compaction and sediment control during construction, as well as compliance with NPDES permits requiring preparation of a Stormwater Pollution Prevention Plan (SWPPP).

As discussed on page 3.7-3 of Volume 3 of the 2018 LRDP EIR (less than significant with implementation of OPR Mitigation Measure 3.7-1), development and occupancy of the Orchard Park site could change the pattern of surface runoff or stormwater management such that areas that are susceptible to erosion are exposed to more runoff and experience increased rates of erosion. Site storm drain runoff from the Project, both at the Orchard Park main site and the offsite parking area, will be directed via surface drainage and/or underground pipes to stormwater treatment measures consisting of bio-retention planters, vegetated swales, porous pavement areas, or other State-approved measures or devices. The stormwater treatment measures will be designed and sized according to the requirements of the State's General Permit. Treated stormwater will be collected by drainage inlets or perforated subdrain pipes at the treatment measures and leave the project site via underground drainage pipes which will join the existing central campus storm drain system at Orchard Park Drive or the existing West Village stormwater system at North Sage Street. All storm drainage facilities will be sized to provide

capacity for at least the 10-year storm event. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

c,d) As discussed on page 3.7-3 of Volume 3 of the 2018 LRDP EIR, potential impacts related to unstable and expansive soils were less than significant because of building codes, regulations, and best management practices (BMPs) already in place. Campus policy requires compliance with the CBC and the University of California Seismic Safety Policy. The CBC requires that a geotechnical investigation that addresses the potential for liquefaction, lateral spreading, and other types of ground failure be performed to provide data for the architect and/or engineer to responsibly design the Project. According to the geotechnical investigation conducted for the Project, the potential for liquefaction of the soils beneath the site is considered very low (MPE 2017). Additionally, subsidence on campus is related to groundwater withdrawals from the shallow/intermediate aquifers. Groundwater extractions from the shallow/intermediate aquifer are not expected to increase with implementation of the Project. The Project will be designed in compliance with the CBC and the University of California Seismic Safety Policy. Therefore, no new or substantially or more severe impacts would occur and no mitigation would be required.

e) As stated on page 3.7-3 of Volume 3 of the 2018 LRDP EIR, the Orchard Park Redevelopment component would not include septic tanks or alternative wastewater disposal systems. Therefore, this issue is not relevant to the Project. No septic tanks or alternative wastewater disposal systems are included in the Project. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

f) As discussed on page 3.7-3 of Volume 3 of the 2018 LRDP EIR, the UC Davis campus, including the Orchard Park Redevelopment site and offsite parking area, is underlain by quaternary alluvium from the Holocene period that is generally less than 10,000 years old. The soils of the area are deep, unconsolidated, alluvial units with a low likelihood of producing fossils. As a result, impacts related to paleontological resources would not occur. Therefore, this issue is not relevant to the Project.

g,h) As discussed on page 3.7-3 of Volume 3 of the 2018 LRDP EIR, the UC Davis campus, including the Orchard Park Redevelopment site and offsite parking area, is not located in an area of significant mineral deposits (specifically aggregate rock). Additionally, the Orchard Park site was previously developed with student housing and is not indicated as a locally important mineral resource site. Therefore, this issue is not relevant to the Project.

4.1.8 Greenhouse Gas Emissions and Climate Change

Section 3.8 of the 2018 LRDP EIR explains the physical scientific basis of greenhouse gas (GHG) emissions and climate change, presents regulatory setting and significance criteria, describes the analysis methodology, presents the GHG sources and emissions associated with construction activities and campus operations, and evaluates the various types of adverse climate change-related effects on the environment. Section 3.8 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Greenhouse Gas Emissions Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Yes	No	No	N/A
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose or reducing the emissions of greenhouse gases?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

Note that GHG impacts were not evaluated in Volume 3 of the 2018 LRDP EIR because the 2018 LRDP EIR adequately evaluated the project-level analysis of the Orchard Park Redevelopment at the program level.

a) 2018 LRDP EIR Impact 3.8-1 (less than significant) discloses that the 2018 LRDP would result in increased GHG emissions caused by increased construction activity, on-road VMT, building energy consumption, water consumption, wastewater and solid waste generation, and new stationary sources. However, implementation of the 2018 LRDP would reduce campus emissions 4 percent below 1990 levels by 2020 and 59 percent below 1990 levels by 2030. The 2018 LRDP EIR determined that both the 2020 and 2030 campus-wide GHG emission reductions would exceed the State's GHG targets pursuant to Senate Bill 32 of 2016 (i.e., 1990 levels by 2020 and 40 percent below 1990 levels by 2030) and would be consistent with the statewide GHG reduction goals, and would not considerably contribute to climate change.

   Construction and operation of the Project would result in GHG emissions from construction vehicle trips, construction equipment, building energy use, and mobile sources. Emissions associated with building energy use would include the consumption of natural gas for space and water heating, and the consumption of electricity, including electricity associated with the treatment and conveyance of water. The Project would include multiple design elements that would reduce construction GHG emissions and overall building energy use and associated GHG emissions. The Project would comply with the 2018 UC Policy on Sustainable Practices, the 2019 Campus Design Guide, and 2016 Title 24 energy efficiency measures. In addition, UC Davis implements Green Building practices under the U.S. Green Building Council's LEED program; the Project, at a minimum, is intended to meet LEED Silver and targeting to achieve LEED Gold.

Although the Project would result in GHG emissions, through the initiatives to reduce campus-wide GHG emissions, project emissions related to energy use would be reduced or offset over time. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

b) As discussed in 2018 LRDP EIR Impact 3.8-2, implementation of the 2018 LRDP would achieve targets established in the UC Sustainable Practices Policy through anticipated planning and policy actions. The UC Davis Office of Sustainability prepares sustainability plans such as the Climate Action Plan (CAP), the Zero Waste Plan, and the Water Action Plan, which set the vision for campus action and outline strategies and efforts to enable the campus to achieve the UC Sustainable Practices Policy goals. Achievement of the UC Sustainable Practices Policy would meet or exceed statewide targets for 2030 and would not impede the ability to achieve statewide 2050 targets, including continued implementation of Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The SACOG MTP/SCS for the Sacramento region proactively links land use, air quality, and transportation needs. The MTP/SCS implements smart growth principles and provides increased transportation options while reducing congestion, shortening commute times, and improving air quality (SACOG 2016). The modeling conducted for the LRDP includes SACOG's planned transportation projects under the 2035 MTP/SCS as part of the future condition analysis and would not conflict with or limit SACOG's ability to implement projects under the 2035 MTP/SCS (UC Davis 2018a).

   As discussed in response a) above, the Project would not result in any significant short-term or long-term GHG contributions. Implementation of the UC Davis Climate Action Plan (CAP) describes and addresses policy and regulatory requirements of (1) the UC Sustainable Practices Policy, (2) Assembly Bill 32, including CARB's GHG Mandatory Reporting Program (3) the American College and University Presidents Climate Commitment, (4) CEQA, and (5) EPA reporting requirements. The Project would be subject to all requirements of the UC Davis CAP which would reduce operations-related emissions and help UC Davis to reach their GHG emissions reduction goals for the years 2020 and 2030. The Project also includes site and landscape designs that promote bicycle and pedestrian access while providing easy and accessible routes between neighboring land uses. Given this, the Project would not conflict with UC Sustainable Practices Policy, the UC Davis CAP, SACOG's 2035 MTP/SCS, or any other plan, policy, or regulation adopted for the purposes of reducing the emissions of GHGs. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

4.1.9 Hazards and Hazardous Materials

Section 3.9 of the 2018 LRDP EIR addresses the hazards and hazardous materials effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.9 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Hazards & Hazardous Materials Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes	No	No	N/A
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?	Yes	No	No	Yes
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Yes	No	No	N/A
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Yes	No	No	N/A
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?	Yes	No	No	N/A
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?	Yes	No	No	N/A
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes	No	No	Yes
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?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) Volume 3 of the 2018 LRDP EIR concluded that adherence to existing regulations and compliance with the safety procedures mandated by applicable federal, state, university, and local laws and regulations would minimize the risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with construction and implementation of the Orchard Park Redevelopment component to a less-than-significant level. No new or substantially more severe impacts would occur and no mitigation would be required.

b,d) Neither the main Orchard Park Redevelopment site nor the offsite parking area are located on a contaminated site pursuant to Government Code Section 65962.5 (2018 LRDP EIR Volume 3 Impact 3.9-1 and 2018 LRDP EIR Volume 1 Impact 3.9-2, respectively). One site, the USDA Weed Control Lab is located within one mile of the Orchard Park site. Activities involving the assessment, cleanup, and monitoring of this site would continue regardless of approval of the Orchard Park Redevelopment component of the 2018 LRDP.

Impact 3.9-1 in Volume 3 of the 2018 LRDP EIR (less than significant with mitigation) discusses how properties located adjacent to roadways may contain elevated concentrations of lead in exposed surface soils, and that soil can contain naturally occurring asbestos when ultramafic rocks containing asbestos are broken or crushed and asbestos fibers are released. Additionally, grading and excavation activities may also expose construction workers and the public to hazardous substances present in the soil or groundwater that are not anticipated based on information about existing site conditions.

With implementation of OPR Mitigation Measures 3.9-1a and 3.9-1b, soil conditions on-site would be confirmed before development and any identified contamination would be appropriately remediated and a contingency plan would be established to describe the necessary actions that would be taken if evidence of contaminated soil or groundwater is encountered during construction, including cessation of work until the potential contamination is characterized and properly contained or remediated. Therefore, no new or substantially more severe impacts would occur and no additional mitigation is required.

c) As discussed on page 3.9-2 of Volume 3 of the 2018 LRDP EIR, there are no schools within 0.25 mile of the Orchard Park site. Additionally, the Project would not involve the operation of uses that would utilize hazardous or acutely hazardous materials beyond those normally associated with residential development. Therefore, this issue is not relevant to the Project.

e) As discussed on page 3.9-2 of Volume 3 of the 2018 LRDP EIR, safety hazards associated with airports are generally related to construction of tall structures (i.e., approaching 219 feet in height, as specified for the Horizontal Zone of the University Airport) and the creation of wildlife attractants that could interfere with airplane flight paths. Because new land uses associated with the 2018 LRDP, including the Orchard Park Redevelopment component, would be consistent with airport land use plans and FAA guidance, this impact would be less than significant. The Project would construct student housing up to four stories in height, as opposed to the six stories analyzed in Volume 3 of the 2018 LRDP EIR. Therefore, the Project would not conflict with airport operations. No new or substantially more severe impacts would occur and no mitigation would be required.

f) The University Airport is a public use airport, not a private airstrip. No other private airport facilities are within the immediate vicinity of the campus. This issue is not relevant to this Project.

g) Consistent with 2018 LRDP EIR Volume 3 Impact 3.9-2 (less than significant with mitigation), Project-related construction could result in short-term, temporary impacts to street traffic because of roadway improvements, utility upgrades, and potential extension of construction

activities into the right-of-way. This could result in a reduction in the number of lanes or temporary closure of certain street segments. Any potential conflicts with emergency access or evacuation routes would interfere with implementation of the campus' Emergency Operations Plan. Preparation of a Construction Traffic Management Plan, as required by OPR Mitigation Measure 3.9-2, would adequately address any potential conflicts with emergency access or evacuation routes during Project construction by communicating proposed lane and road closures with first responders and allowing first responders to plan accordingly to ensure that emergency response times and maintain adequate emergency access. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

h) As stated on page 3.9-2 of Volume 3 of the 2018 LRDP EIR, the campus, including the Orchard Park site, is not located in or near a fire hazard severity zone established by CAL FIRE. The potential for wildland fire is low. Development of the Project would not change this and no new or substantially more severe impacts would occur and no mitigation would be required.

4.1.10 Hydrology and Water Quality

Section 3.10 of the 2018 LRDP EIR addresses the hydrology and water quality effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Hydrology & Water Quality Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Violate any water quality standards or waste discharge requirements?	Yes	No	No	Yes
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)?	Yes	No	No	N/A
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 offsite?	Yes	No	No	Yes
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 offsite?	Yes	No	No	Yes
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?	Yes	No	No	Yes
f) Otherwise substantially degrade water quality?	Yes	No	No	Yes
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?	Yes	No	No	N/A
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Yes	No	No	N/A
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?	Yes	No	No	N/A
j) Inundation by seiche, tsunami, or mudflow?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,f) As described on page 3.10-2 of Volume 3 of the 2018 LRDP EIR, construction of the Orchard Park Redevelopment component would not contribute substantial loads of sediment or other pollutants to stormwater runoff. Construction on campus is covered under the NPDES state-wide General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Permit). As part of the General Permit, campus construction projects managed by outside contractors and disturbing over one acre (including the Project) must implement SWPPPs, which specify BMPs to reduce the contribution of sediments, spilled and leaked liquids from construction equipment, and other construction-related pollutants to stormwater runoff. The UC Davis campus is required to comply with the NPDES state-wide General Permit requirements. This regulatory framework provides adequate protection from stormwater contamination and provides water quality protection from construction activities on campus. The Project would result in grading and excavation, as well as use of construction lubricants, which could enter stormwater runoff. However, with adherence to BMPs and development of a SWPPP, these contributions would not be substantial. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

Similarly, new impervious surfaces created by construction of the Orchard Park Redevelopment component would result in new sources of stormwater runoff and contamination, as well as an increased risk of erosion and sedimentation. However, campus development, including the Project, is covered under the Phase II Small MS4 Permit, which requires management of long-term stormwater discharges and implementation of pollution protection measures. The Project would result in areas of new impervious surface that would contribute small amounts of additional stormwater runoff. Project design would be based on the drainage evaluation completed for the stormwater management system prior to Project implementation (required by OPR Mitigation Measure 3.10-2). Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

b) Deep Aquifer. As described in 2018 LRDP EIR Volume 3 Impact 3.10-1 (less than significant), development and occupancy of the Orchard Park site would increase the amount of water extracted from the deep aquifer; however, groundwater supplies within the deep aquifer are not considered to be in decline by the California Department of Water Resources. The Project would draw groundwater as a domestic water source during periods of low flow in the Sacramento River, when water is not available from the Woodland-Davis Clean Water Agency. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

Shallow/Intermediate Aquifer. As described on page 3.10-2 of Volume 3 of the 2018 LRDP EIR, recharge infiltration patterns could be affected by the increase in development. The Project would include additional impervious pavement; however, LID strategies are included to prevent impacts recharge infiltration patterns. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

c,d,e) The 2018 LRDP EIR Volume 3 Impact 3.10-2 found that development and occupancy of the Orchard Park site would result in an overall increase in impervious surfaces and produce changes to site-specific drainage, stormwater runoff, and infrastructure (less than significant with mitigation). With implementation of the Orchard Park Redevelopment component, approximately 3,000 linear feet of new storm drain pipes would be added to accommodate the new buildings. Bio-swales and small stormwater infiltration basins would be installed adjacent parking and in landscaped areas of the project site to capture, infiltrate, and offset increases in stormwater runoff generated Project. Surface water flows across the offsite parking area currently flow through roadside drainages along Acer Street; paving this 1.75-acre area would not affect this drainage pattern but would result in an increase in the amount of flow across the site as a result of a change from pervious to impervious. The Project design would be based on

the drainage evaluation completed for the stormwater management system prior to Project implementation (OPR Mitigation Measure 3.10-2). Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

Water quality impacts related to stormwater runoff are evaluated in criteria (a) and (f), above.

g,h) The Project site is not located within a 100-year flood hazard area (see 2018 LRDP EIR, Exhibit 3.10-2, Designated 100-Year Flood Zones). Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

i) As described on page 3.10-3 of Volume 3 of the 2018 LRDP EIR, the risk of inundation of any portion of the campus from a failure of the Monticello Dam is low. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

j) UC Davis is not subject to inundation by seiche, tsunami, or mudflow. The campus is generally flat and is not located near any large water bodies. This issue is not relevant to the Project.

4.1.11 Land Use and Planning

Section 3.11 of the 2018 LRDP EIR addresses the land use and planning effects of campus growth and development under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.11 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Land Use & Planning Would the Project…	Impact Examined in 2018 LRDP EIR?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Physically divide an established community?	Yes	No	No	N/A
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?	Yes	No	No	N/A
c) Result in development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) There is no housing on the Project site and the Project would have no potential to physically divide an established community. Therefore, this issue is not relevant to the Project.

b,c) UC holds jurisdiction over campus-related Projects and Projects carried out by UC Davis would be consistent with the 2018 LRDP. As shown in Exhibit 2-4 on page 2-8 of Volume 1 of the 2018 LRDP EIR, the main Orchard Park site is designated as Student Housing, while the offsite parking area is designated as Faculty & Staff Housing. As discussed on page 3.11-2 of Volume 3 of the 2018 LRDP EIR, implementation of the Orchard Park Redevelopment component would include the development of additional student housing within UC Davis, which is consistent with the previous use of the site and adjacent uses on-campus and across Russell Boulevard. As the Orchard Park Redevelopment component would involve the development of uses similar to the former use of the Orchard Park site and would be consistent with adjacent land uses, no new, substantial environmental impacts related to land use plans, policies, or zoning would occur as a result of development. Additionally, the development of the offsite parking within the Faculty & Staff Housing area is consistent with that land use designation. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required for the Project.

4.1.12 Noise

Section 3.12 of the 2018 LRDP EIR addresses the noise effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.12 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Noise Would the Project…	Impact Examined in 2018 LRDP EIR	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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?	Yes	No	No	Yes
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Yes	No	No	N/A
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Yes	No	No	N/A
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Yes	No	No	Yes
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?	Yes	No	No	N/A
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?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,c,d) Construction Noise. 2018 LRDP EIR Volume 3 Impact 3.12-1 (less than significant with mitigation) determined that implementation of the Orchard Park Redevelopment component would result in construction-related noise impacts associated with the use of heavy-duty construction equipment. Daytime construction activity would not exceed applicable standards of 86 dBA L_{max} at the nearest sensitive receptors located offsite within the City of Davis. However, specific construction schedule and timing is unknown. If construction were to occur during the nighttime hours such that nearby on-campus receptors could experience sleep disturbance or if multiple pieces of equipment were operating simultaneously at the southern boundary of the Orchard Park site, construction could result in elevated noise levels at adjacent on-campus housing. The Project as currently proposed includes an offsite parking area, adjacent to the existing West Village residential development, and electrical upgrades along Orchard Park Drive, adjacent to the existing Baggins End Domes residences. Construction-noise related to the paving of the parking area and

trenching for the electrical conduit installation would be less intense than at the main Orchard Park site as the parking site is graded and would require little preparation and the utility trenching is a small area of disturbance, but could result in elevated noise levels at adjacent receptors. Implementation of OPR Mitigation Measure 3.12-1 would reduce temporary noise levels at existing on-campus receptors and ensure that construction activities are limited to the less-sensitive, daytime hours when people are typically not sleeping. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

Operational Noise – Stationary Noise Sources. 2018 LRDP EIR Volume 3 Impact 3.12-2 (less than significant with mitigation) determined that implementation of the Orchard Park Redevelopment component would result in new stationary sources such as heating ventilation and air condition units (HVAC) equipment and emergency backup generators that could expose existing or future receptors to excessive noise levels depending on final building design and location. Implementation of OPR Mitigation Measure 3.12-2 would require that all stationary noise sources are oriented, located, and designed in such a way that reduces noise exposure to ensure that stationary noise sources would comply with acceptable noise standards for sensitive receptors. The Project would require the same types of HVAC equipment and emergency backup generators; therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

Operational Noise - Traffic Noise. 2018 LRDP EIR Volume 3 Impact 3.12-4 (less than significant) determined that although redevelopment of the Orchard Park site would result in increases in traffic on local and regional roadways, with Russell Boulevard between SR 113 and La Rue Road being identified as the primary roadway segment that could have a potential noise impact on new or existing sensitive receptors. Based on modeling conducted, this would result in a projected increase of less than 1 dBA along this roadway segment, which would not be considered substantial or audible. The Project is substantially similar to the Orchard Park Redevelopment component; the same site would be developed to house a similar level of student population. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

b) As discussed on pages 3.12-2 and 3.12-3 of Volume 3 of the 2018 LRDP EIR, pile driving, blasting, or other substantial vibration-inducing construction equipment or techniques are not anticipated to be necessary during construction. Further, the land use associated with the Orchard Park Redevelopment component is residential and would not result in new or unique vibration levels that could be considered excessive during operation. Consistent with this, the Project would not involve pile driving, blasting, or other substantial vibration-inducing construction equipment or techniques. The Project would require grading and excavation; however, this is a typical construction activity and would not generate substantial levels of vibration or groundborne noise. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

e) As discussed on page 3.12-1 of Volume 3 of the 2018 LRDP EIR, the University Airport is located approximately 1.1 mile southwest of the Orchard Park site. The site is not located within the 55 A-weighted decibels (dBA) CNEL contour of the airport. The Project would not expose people to excessive noise levels associated with this public use airport because Project site is located approximately 1.1 mile southwest of the University Airport and outside of the airport's existing noise contours. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

f) The University Airport is a public use airport, not a private airstrip. No other private airport facilities are within the immediate vicinity of the campus. This issue is not relevant to this Project.

4.1.13 Population and Housing

Section 3.13 of the 2018 LRDP EIR addresses the population and housing effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.13 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Population & Housing Would the Project…	Impact Examined in 2018 LRDP EIR	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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)?	Yes	No	No	N/A
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Yes	No	No	N/A
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Yes	No	No	N/A
d) Create a demand for housing that cannot be accommodated by local jurisdictions?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,d) As described on page 3.13-2 of Volume 3 of the 2018 LRDP EIR, implementation of the Orchard Park Redevelopment component would accommodate anticipated demand for student housing that would occur as a result of the 2018 LRDP implementation. It would not, in and of itself, induce substantial employment growth as it would provide solely student housing and would not necessitate a substantial increase in the number of employees on-campus. The Project is substantially similar to the previously evaluated Orchard Park Redevelopment component; the same site would be developed with a similar level of student housing and related facilities. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

b,c) No housing units exist on the project site. The Project would not displace any existing housing units or people. Therefore, this issue is not relevant to the Project.

4.1.14 Public Services

Section 3.14 of the 2018 LRDP EIR addresses the public services effects of campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.13 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Public Services Would the Project…	Impact Examined in 2018 LRDP EIR	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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:				
i) Fire protection?	Yes	No	No	N/A
ii) Police protection?	Yes	No	No	N/A
iii) Schools?	Yes	No	No	N/A
iv) Other public facilities?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) As identified by 2018 LRDP EIR Volume 3 Impacts 3.14-1 and 3.14-2 (less than significant), implementation of the 2018 LRDP could increase the demand for fire and police services, however the Orchard Park Redevelopment component is not anticipated to increase the demand for additional fire protection or police facilities. The Project is substantially similar to the previously evaluated Orchard Park Redevelopment component; the same site would be developed to house a similar level of student population. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

As discussed in 2018 LRDP EIR Volume 3 Impact 3.14-3 (less than significant), the Davis Joint Union School District would have adequate capacity to accommodate the 42 additional elementary school students, 20 middle school students, and 7 high school students that were anticipated as a result of the 200 student-family housing units proposed at the Orchard Park site. The Project proposes 126 student-family housing units, resulting in fewer students attending the Davis Joint Union School District. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

As stated on pages 3.14-1 and 3.14-2 of Volume 3 of the 2018 LRDP EIR, UC Davis has the capacity to provide sufficient library services to serve the campus population's needs through 2030-2031. Therefore, this issue is not relevant to the Project.

4.1.15 Recreation

Section 3.15 of the 2018 LRDP EIR addresses the environmental effects associated with modifying recreational resources to meet campus growth under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.15 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Recreation Would the Project…	Impact Examined in 2018 LRDP EIR	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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?	Yes	No	No	N/A
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?	Yes	No	No	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a) 2018 LRDP EIR Volume 3 Impact 3.15-1 found that the Orchard Park Redevelopment component would have a less-than-significant increase in demand for recreation facilities. The Project would similarly increase demand for on-campus recreation facilities. However, maintenance of existing on-campus recreation facilities would be increased as needed, and several new recreation facilities would be constructed as part of the 2018 LRDP to off-set increases in demand for recreational facilities. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

b) The Project would include a small park play area and tot lot for student families with children. Construction of the new facilities would require ground-disturbance, which would result in typical construction-related impacts. These types of impacts are addressed throughout this environmental checklist (e.g., within Section 4.1.3, “Air Quality,” Section 4.1.5, “Biological Resources,” and Section 4.1.10, “Hydrology and Water Quality”). No new or substantially more severe impacts would occur and no new mitigation would be required.

4.1.16 Transportation, Circulation, and Parking

Section 3.16 of the 2018 LRDP EIR addresses the transportation, circulation, and parking effects of campus growth and development under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation. Section 3.16 of Volume 3 of the 2018 LRDP EIR evaluates the potential impacts of the Orchard Park Redevelopment component.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

TRANSPORTATION & TRAFFIC Would the Project…	Impact Examined in 2018 LRDP EIR	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
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?	Yes	No	No	Yes
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards established by the county congestion management agency for designated roads and highways?	Yes	No	No	Yes
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?	No	N/A	N/A	N/A
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No	No	No	N/A
e) Result in inadequate emergency access?	Yes	No	No	N/A
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?	Yes	No	No	Yes

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,b) Volume 3 of the 2018 LRDP EIR found that implementation of the Orchard Park Redevelopment would generate new peak-period vehicle trips that would contribute to unacceptable level of service (LOS) conditions on portions of I-80 (2018 LRDP EIR Volume 3 Impact 3.16-1). OPR Mitigation Measure 3.16-1 in Volume 3 of the 2018 LRDP EIR requires UC Davis to implement Transportation Demand Management strategies to reduce vehicle trips. However, this impact is identified as significant and unavoidable because it is uncertain whether the mitigation would

sufficiently improve LOS conditions along portions of I-80 in the study area to acceptable levels. These impacts were addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2018 LRDP.

The Project would result in an increase of 58 residential units over the number of units analyzed in Volume 3 of 2018 LRDP EIR. However, as described previously under "Summary of Proposed Project Modifications," the total number of occupants would be reduced by 81 persons. Additionally, the Project would include the construction of a 1.75-acre offsite parking lot constructed west of the Project site across SR 113 and directly north of the current West Village development. This parking lot was not analyzed as part of the Orchard Park Redevelopment component in Volume 3 of the 2018 LRDP EIR. The offsite parking lot would be provided to satisfy existing demand for parking as well as future parking demand associated with LRDP projects such as the Orchard Park Redevelopment. Therefore, although the construction of the offsite parking lot could result in the redistribution of some existing and future trips within the study area, it is not anticipated that it would result in the generation of any new vehicular trips or increased trip lengths.

The aforementioned redistribution of trips within the study area associated with the construction of the offsite parking lot could result in minor increases in traffic volumes at some study area intersections and minor decreases in traffic volumes at other study area intersections. Additionally, the total number of occupants and therefore project-generated trips would be less than analyzed for Orchard Park Redevelopment component in Volume 3 of the 2018 LRDP EIR even with the addition of the offsite parking lot. Thus, no new or substantially more severe impacts related to LOS would occur.

SB 743, passed in 2013, required the Governor's Office of Planning and Research to develop new CEQA Guidelines that address traffic metrics under CEQA. As stated in the legislation (and Public Resources Code [PRC] Section 21099[b][2] of CEQA), upon adoption of the new CEQA guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the CEQA guidelines, if any." The Office of Administrative Law approved the updated CEQA Guidelines on December 28, 2018, and the changes are reflected in new CEQA Guidelines (Section 15064.3). Therefore, automobile delay no longer constitutes a significant impact on the environment under CEQA.

Pursuant to the new CEQA Guidelines vehicle miles traveled (VMT) will replace congestion as the metric for determining transportation impacts. As stated in the CEQA Guidelines Section 15064.3(c), beginning on July 1, 2020 the provisions of this section shall apply statewide. Thus, lead agencies have an opt-in period until July 1, 2020 to implement the updated guidelines now that they have been formally adopted.

Section 15064.3(b)(1) of the CEQA Guidelines addresses land use projects. The Project consists of a new student housing facility and offsite parking lot; and thus, the criteria detailed in CEQA Guidelines Section 15064.3(b)(1) would apply to the Project. Section 15064.3(b)(1) describes that generally, a project within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. As defined in PRC Section 21064.3, a major transit stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. PRC Section 21155 defines a high-quality transit corridor as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

The Project is located within one-half mile of multiple bus stops, including the Unitrans D, G, and J lines which are fixed route bus lines with regular service intervals of 15 minutes or less during peak commute hours. Therefore, consistent with CEQA Guidelines Section 15064.3(b)(1), the Orchard Park Development as analyzed in Volume 3 of the 2018 LRDP EIR and the Project as analyzed here-in are both considered to result in a less than significant transportation impact to VMT. Additionally, as detailed above, the Project is not anticipated to result in the generation of any new vehicular trips, or increased trip lengths as compared to the Orchard Park Development as analyzed in Volume 3 of the 2018 LRDP EIR. Therefore, the Project would not result in an increase in VMT and no new significant impacts or substantially more severe impacts would occur and no new mitigation would be required.

c) The Orchard Park Redevelopment Project would result in no change to air traffic patterns. The UC Davis airport is the closest airport and the Orchard Park Redevelopment Project and would have no effect on the number of flights or the operation of the airport. This issue is not relevant to the Project.

d) 2018 LRDP EIR does not address hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). However, all roadway improvements would be subject to review by the UC Davis Design Review Committee. The Design Review Committee serves an advisory role to the Campus Architect and recommendations from the committee are reported to the Chancellor's Committee on Campus Planning and Design, the body responsible for reviewing most campus-based projects. Therefore, the design review and approval process would ensure that the Project would be designed and constructed in accordance with industry standards and all applicable design and safety standards. Thus, no new or substantially more severe impacts would occur and no additional analysis is required.

e) Consistent with 2018 LRDP EIR Volume 3 Impact 3.9-2 (less than significant with mitigation), Project-related construction could result in short-term, temporary impacts to street traffic because of roadway improvements, utility upgrades, and potential extension of construction activities into the right-of-way. This could result in a reduction in the number of lanes or temporary closure of certain street segments. Any potential conflicts with emergency access or evacuation routes would interfere with implementation of the campus' Emergency Operations Plan. Preparation of a Construction Traffic Management Plan, as required by OPR Mitigation Measure 3.9-2, would adequately address any potential conflicts with emergency access or evacuation routes during Project construction by communicating proposed lane and road closures with first responders and allowing first responders to plan accordingly to ensure that emergency response times and maintain adequate emergency access. . Additionally, the proposed Project would provide three points of ingress/egress, as opposed to two as planned in the 2018 LRDP EIR Volume 3; thus, resulting in improved emergency access as compared to the Orchard Park Redevelopment component as analyzed in Volume 3 of the 2018 LRDP EIR. Additionally, emergency access would be subject to review by the responsible emergency service agencies and the UC Davis Design Review Committee; thus, ensuring the Project would be designed to meet all applicable emergency access and design standards. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

f) Impacts to Transit Service and Facilities: 2018 LRDP EIR Volume 3 Impact 3.16-3, "Impacts to transit service and facilities," determined that implementation of the Orchard Park Redevelopment component would not interfere with the implementation of planned transit service or facilities, or adversely affect transit service operations.

Consistent with the Orchard Park Redevelopment component as analyzed in the 2018 LRDP EIR Volume 3, the Project does not include any proposed physical changes to existing transit service

or facilities. Therefore, the Project would not interfere with the implementation of planned transit service or facilities identified in the City of Davis General Plan, the City of Davis Short Range Transit Plan, the Yolobus Short Range Transit Plan, or SACOG MTP/SCS. Therefore, the Project would not conflict with any adopted policies, plans, or programs regarding transit facilities, or otherwise decrease the performance or transit service. No new or substantially more severe transit impacts would occur and no additional mitigation would be required.

Impacts to Bicycle Facilities: As discussed in 2018 LRDP EIR Volume 3, Impact 3.16-4, "Impacts to bicycle facilities," determined that implementation of the Orchard Park Redevelopment component would not interfere with the implementation of planned bicycle facilities in the City of Davis General Plan, City of Davis Beyond Platinum Bicycle Action Plan, or planned regional bicycle projects identified in the SACOG MTP/SCS. However, it was determined that the Orchard Park Redevelopment component may conflict with the Orchard Park bike bridge to the Russell Boulevard bike path parallel to SR 113 identified in the UC Davis Bicycle Plan. Additionally, it was determined that the Orchard Park Redevelopment would increase bicycle, pedestrian, and automobile trips on the UC Davis campus and within the vicinity of the Orchard Park site, which could generate bicycle volumes that physically disrupt the use of existing facilities, increase the competition for physical space between the modes, and increase the risk of collisions. Therefore, as discussed in 2018 LRDP EIR Volume 3, with implementation of the Orchard Park Redevelopment component, impacts to bicycle facilities would be significant. Implementation of improvements per OPR Mitigation Measures 3.16-4a and 3.16-4c in Volume 3 of the 2018 LRDP EIR would reduce significant impacts associated with bicycle facilities by supporting bicycling to and from the Orchard Park site and minimizing conflicts between bicycles and other travel modes. Implementation of OPR Mitigation Measure 3.16-4b would enhance the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road. However, some improvements included in OPR Mitigation Measure 3.16-4b could be subject to final approval and actions by the City of Davis and their implementation cannot be guaranteed. Therefore, due to uncertainties regarding the implementation of OPR Mitigation Measure 3.16-4b, impacts associated with bicycle facilities was determined to be significant and unavoidable. This impact was addressed in the Findings and Statement of Overriding Considerations adopted by the Regents in connection with its approval of the 2018 LRDP.

The Project includes numerous features to promote connectivity and improve multi-modal transportation, including the addition of 200 new bicycle parking spots as compared to the Project as previously analyzed. Consistent with the analysis in Volume 3, Impact 3.16-4, "Impacts to bicycle facilities," of the 2018 LRDP EIR, the Project may conflict with the Orchard Park bike bridge to the Russell Boulevard bike path parallel to SR 113 identified in the UC Davis Bicycle Plan. Additionally, consistent with Volume 3 of the 2018 LRDP EIR, the increase in bicycle, pedestrian, and automobile trips on the UC Davis campus associated with development of the Project could generate bicycle volumes that physically disrupt the use of existing facilities, increase the competition for physical space between the modes, and increase the risk of collisions. However, the increase in generation of bicycle trips associated with the Project would be consistent with that of the Orchard Park Redevelopment component as analyzed in the 2018 LRDP EIR Volume 3, Impact 3.16-4, "Impacts to bicycle facilities." Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

Impacts to Pedestrian Facilities: As discussed in 2018 LRDP EIR Volume 3, Impact 3.16-5, "Impacts to pedestrian facilities," determined that implementation of the Orchard Park Redevelopment component would not interfere with the implementation of planned pedestrian facilities. However, it was determined that the Orchard Park Redevelopment component would increase bicycle, pedestrian, and automobile trips on the UC Davis campus and within the vicinity of the Orchard Park site, which could generate pedestrian volumes that physically disrupt the use

of existing facilities, increase the competition for physical space between the modes, and increase the risk of collisions. Therefore, as discussed in 2018 LRDP EIR Volume 3, with implementation of the Orchard Park Redevelopment component, impacts to pedestrian facilities would be significant. Implementation of improvements per OPR Mitigation Measure 3.16-5 in Volume 3 of the 2018 LRDP EIR would reduce significant impacts associated with pedestrian facilities to a less-than-significant level by supporting walking to and from the Orchard Park site and minimizing conflicts between pedestrian and other travel modes.

Because the offsite parking area is located west of SR 113, Orchard Park residents utilizing the parking area would need to walk east, over the pedestrian bridge, towards the Orchard Park site. Implementation of the West Village Housing Expansion – Connectivity Improvements project, scheduled to begin in Summer 2020, would result in improved pedestrian and bike connectivity between the West Village neighborhood and the Orchard Park site. This improvement project includes bicycle and pedestrian path widening, new paths within West Village, connections from The Green to central campus as a result of improvements to bike and pedestrian pathways along Russell Boulevard, a pedestrian bridge to Orchard Park Circle, and construction of a traffic circle at the intersection of Orchard Park Road and Orchard Park Drive. Overall, the West Village Housing Expansion – Connectivity Improvements project would enhance safety and connectivity between the offsite parking area in the West Village neighborhood and the Orchard Park site. These connectivity improvements would be completed prior to occupancy of the Orchard Park Redevelopment Project.

The Project includes numerous features to promote connectivity and improve multi-modal transportation. Additionally, the Project would not conflict with any adopted policies, plans, or programs regarding pedestrian facilities. However, consistent with the analysis in Volume 3, Impact 3.16-5, “Impacts to pedestrian facilities,” of the 2018 LRDP EIR the Project, the absence of sidewalk and gaps in the sidewalk network in the vicinity of the Project would require pedestrians to mix with other modes; thus, increasing the potential for pedestrian-involved collisions. However, the increase in generation of pedestrian trips associated with the Project would be consistent with that of the Orchard Park Redevelopment as analyzed in the 2018 LRDP EIR Volume 3, Impact 3.16-5, “Impacts to pedestrian facilities.” Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

4.1.17 Utilities and Service Systems

Section 3.17 of the 2018 LRDP EIR addresses the effects of campus growth and development on utility systems under the 2018 LRDP by providing regulatory setting information, environmental setting information, analysis methodology, significance criteria, and a detailed environmental impact evaluation.

ENVIRONMENTAL CHECKLIST AND DISCUSSION

UTILITIES & SERVICE SYSTEMS Would the Project…	Impact Examined in 2018 LRDP EIR	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?*	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2018 LRDP EIR Address/ Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Yes	No	No	N/A
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?	Yes	No	No	N/A
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Yes	No	No	Yes
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	Yes	No	No	N/A
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 providers existing commitments?	Yes	No	No	N/A
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Yes	No	No	N/A
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Yes	No	No	N/A
h) Require or result in the construction or expansion of electrical, natural gas, chilled water, or steam facilities, which would cause significant environmental impacts?	Yes	No	No	N/A
i) Require or result in the construction or expansion of telecommunication facilities, which would cause significant environmental impacts?	No	N/A	N/A	N/A

*Determination is related to pre-mitigation conditions, including implementation of previously adopted mitigation.

a,e) As described on pages 3.17-1 and 3.17-2 of Volume 3 of the 218 LRDP EIR, UC Davis has capacity to provide sufficient wastewater treatment to serve the campus with implementation of the 2018 LRDP, which includes the Orchard Park Redevelopment component. Therefore, the Project would not require additional or expanded facilities; no new or substantially more severe impacts would occur and no mitigation would be required.

b) Consistent with Impact 3.17-1 of Volume 3 of the 2018 LRDP EIR, development and occupancy of the Orchard Park site would increase the amount of wastewater generated in the immediate area. The existing wastewater pipe located within Orchard Road has limited available capacity to accommodate additional wastewater flows under peak conditions. Implementation of OPR Mitigation Measure 3.17-1 adequate capacity would be available within the wastewater collection system serving the Orchard Park site to accommodate increased flows associated with the Project. As related to water infrastructure, new on-site infrastructure would be required and is included as a Project component. However, as discussed on page 3.17-2, based on the previously developed condition of the Orchard Park site and the size and capacity of existing infrastructure that would serve the project site, off-site improvements are not anticipated to be necessary. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

c) Increased impervious surfaces and the potential need for new stormwater infrastructure to accommodate growth was described in 2018 LRDP EIR Volume 3 Impact 3.10-2. Development and occupancy of the Orchard Park site would result in an overall increase in impervious surfaces and produce changes to site-specific drainage, stormwater runoff, and infrastructure (less than significant with mitigation). With implementation of the Orchard Park Redevelopment component, approximately 3,000 linear feet of new storm drain pipes would be added to accommodate the new buildings. Bio-swales and small stormwater infiltration basins would be installed adjacent parking and in landscaped areas of the project site to capture, infiltrate, and offset increases in stormwater runoff generated Project. The Project design would be based on the drainage evaluation completed for the stormwater management system prior to Project implementation (OPR Mitigation Measure 3.10-2).

   Construction-related activities and installation of the project-specific drainage/detention system would require ground-disturbance, which would result in typical construction-related impacts. These types of impacts are addressed throughout this environmental checklist (e.g., within 3.1.3, “Air Quality;” 3.1.5, “Biological Resources,” 3.1.10, “Hydrology and Water Quality”); none of which would result in new or substantially more severe impacts and no new mitigation would be required.

d) As described on page 3.17-1, UC Davis has capacity to provide sufficient water supplies to serve the campus population’s demand through 2030-2031. The Project would not result in additional water use over what was previously proposed in the Orchard Park Redevelopment component. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

f,g) Consistent with the discussion on page 3.17-2, there is sufficient capacity at Yolo County Landfill to handle the solid waste demands of UC Davis with implementation of the 2018 LRDP, including the Orchard Park Redevelopment component. The Project is substantially similar to the previously evaluated Orchard Park Redevelopment component; the same site would be developed to house a similar level of student population. Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

h,i) As noted in Chapter 2, "Project Description," of Volume 3 of the 2018 LRDP, the Orchard Park Redevelopment component would involve the installation of new gas and electric distribution lines and telecom utility lines on site. Based on the presence of existing infrastructure adjacent to the site and the previously developed condition of the site with a similar use, off-site upgrades to existing energy infrastructure were not anticipated to be necessary. The Project as currently proposed includes off-site utility work required for electrical upgrades to serve the Orchard Park site as described in Section 3.3.1, "Summary of Proposed Project Modifications." As discussed on page 3.17-2 of Volume 3 of the 2018 LRDP, should improvements be deemed necessary at a later date, the impacts associated with changes in localized energy infrastructure are accounted for in the analysis of the 2018 LRDP EIR. Construction of the new facilities would require ground-disturbance, which would result in typical construction-related impacts. These types of impacts are addressed throughout this environmental checklist (e.g., within Section 4.1.4, "Archaeological, Historical, and Tribal Cultural Resources," Section 4.1.5, "Biological Resources," and Section 4.1.10, "Hydrology and Water Quality"). Therefore, no new or substantially more severe impacts would occur and no mitigation would be required.

4.1.18 Conclusion

As described in Chapter 3 of this document, "Project Description," and Chapter 4, "Environmental Checklist for Supplemental Environmental Review," none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent document have occurred. As documented throughout the environmental checklist and discussion, changes to the approved Orchard Park Redevelopment component of the LRDP in connection with the Project and any altered conditions since certification of the LRDP EIR in July 2018 would:

- not result in any new significant environmental effects, and
- not substantially increase the severity of previously identified significant effects.

In addition, no new information of substantial importance has arisen that shows that:

- the Project would have new significant effects,
- the Project would have substantially more severe effects,
- mitigation measures or alternatives previously found to be infeasible would in fact be feasible, or
- mitigation measures or alternatives that are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment.

Therefore, the differences between the approved Orchard Park Redevelopment component of the LRDP, as described in the certified EIR, and the Project modifications now being considered constitute changes consistent with CEQA Guidelines Section 15164. Through this addendum, UC Davis has determined that no subsequent EIR or negative declaration is required for the Orchard Park Redevelopment Project.

5 APPLICABLE 2018 LRDP EIR MITIGATION MEASURES

The following mitigation measures were adopted upon approval of the 2018 LRDP EIR and would be applicable to the mitigation of impacts associated with Orchard Park Redevelopment Project.

AESTHETICS

OPR Mitigation Measure 3.1-2a: Building surfaces.

Implement 2018 LRDP Mitigation Measure 3.1-3a.

2018 LRDP Mitigation Measure 3.1-3a: Building surfaces.

UC Davis shall require the use of textured, non-reflective exterior surfaces and non-reflective (mirrored) glass during design review of all new/redeveloped structures.

OPR Mitigation Measure 3.1-2b: Lighting fixtures.

Implement 2018 LRDP Mitigation Measure 3.1-3b.

2018 LRDP Mitigation Measure 3.1-3b: Lighting fixtures.

UC Davis shall require all new outdoor lighting to utilize directional lighting methods with shielded and cutoff type light fixtures to minimize glare and upward directed lighting such that light spillover onto adjacent structures does not occur. Verification of inclusion in Project design shall be provided at the time of design review.

AGRICULTURAL AND FORESTRY RESOURCES

Mitigation Measure 3.2-1: Preservation of other campus agricultural land.

Prior to conversion of Important Farmland to non-agricultural uses for individual projects proposed under the 2018 LRDP, UC Davis shall preserve, in perpetuity, an equivalent acreage (up to 166 total acres for the 2018 LRDP) of Important Farmland within either Russell Ranch or lands adjacent to UC Davis west or south campus for agricultural purposes (including agricultural teaching and research). If acreage preserved through implementation of this mitigation measure is to also be considered in fulfillment of Mitigation Measure 3.5-4b (Compensation for loss of Swainson's hawk foraging habitat), it shall not be used as vineyards or orchards in perpetuity.

AIR QUALITY

OPR Mitigation Measure 3.3-1: Reduce construction-generated emissions of ROG, NO_X, and PM_{10}.

Implement 2018 LRDP Mitigation Measure 3.3-1.

2018 LRDP Mitigation Measure 3.3-1: Reduce construction-generated emissions of ROG, NO_X, and PM_{10}.

Land use development Project implemented under the 2018 LRDP shall require its prime construction contractor to implement the following measures:

1) Use construction equipment with engines rated at Tier 3 or better prior to 2025 and Tier 4 or better beginning in 2025.

2) Use no- or low-solids content (i.e., no- or low-VOC) architectural coatings with a maximum VOC content of 50 g/L.

3) Limit passenger vehicles (i.e., non-vendor and non-hauling vehicles) from being driven on extended unpaved portions of Project construction sites. UC Davis shall provide offsite paved parking and compliant site-transport arrangements for construction workers, as needed.

4) Water all active construction sites at least twice daily.

5) Plant vegetative ground cover in disturbed areas as soon as possible.

6) Apply soil stabilizers on unpaved roads and inactive construction areas (disturbed lands within construction Projects that are unused for at least four consecutive days).

7) Establish a 15 mile-per-hour speed limit for vehicles driving on unpaved portions of Project construction sites.

UC Davis shall ensure that the implementation of this mitigation measure is consistent with the UC Davis stormwater program and the California Stormwater Quality Association *Stormwater BMP Handbook for New Development/Redevelopment* and does not result in offsite runoff as a result of watering for dust control purposes.

OPR Mitigation Measure 3.3-2: Reduce emissions of ROG and NO_X from mobile sources.

Implement 2018 LRDP Mitigation Measures 3.3-2.

2018 LRDP Mitigation Measure 3.3-2: Reduce emissions of ROG and NO_X from mobile sources.

Mobile emissions at 2018 LRDP implementation account for nearly 10 tons per year of ROG and NO_X, respectively, with most emissions coming from trucks with two or more axles, including buses. UC Davis shall implement measures the following measures to the extent feasible:

1) Promote use of EV, carpool, transit vehicles to decrease emissions from passenger vehicles.

2) Provide carpool only parking spaces at close, desired parking locations to provide a premium parking location for carpool users and increase carpool-only parking spaces to meet demand.

3) Conversion of Unitrans buses to electric or other clean fuel to reduce criteria air pollutant emissions,

4) Promote EV or other clean fuel for vendors, especially those using trucks, to reduce ROG and NO_X emissions.

5) Work with vendors, especially those using trucks, to reduce the number of vendor trips made to the 2018 LRDP area through trip chaining, reducing the number of shipments, or other methods.

OPR Mitigation Measure 3.3-3: Reduce short-term construction-generated TAC emissions.

Implement 2018 LRDP Mitigation Measure 3.3-4.

2018 LRDP Mitigation Measure 3.3-4: Reduce short-term construction-generated TAC emissions.

UC Davis shall require construction activities under the 2018 LRDP to follow YSAQMD recommended mitigation measures for construction exhaust emissions. To ensure sensitive receptors are not exposed to substantial TAC concentrations, UC Davis shall require its prime construction contractor to implement the following measures prior to Project approval:

1) Locate operation of diesel-powered construction equipment as far away from sensitive receptors as possible;

2) Limit excess equipment idling to no more than 5 minutes;

3) Use construction equipment with engine ratings of Tier 3 or better (included in Mitigation Measure 3.3-1); and

4) Use electric, compressed natural gas, or other alternatively fueled construction equipment instead of the diesel counterparts, where available.

In addition, for any construction onsite located within 150 feet of a childcare center or park/recreation field, UC Davis shall schedule the use of heavy construction equipment to times when children are not present. Alternatively, UC Davis shall arrange for temporary relocation of childcare facilities to areas outside of a 150-foot buffer or temporarily close available park space within the 150-foot buffer during operation of heavy construction equipment.

CULTURAL RESOURCES

OPR Mitigation Measure 3.4-1: Identify and protect archaeological resources.

Implement 2018 LRDP Mitigation Measure 3.4-1a(1) and 2018 LRDP Mitigation Measure 3.4-1a(3). If the site is determined to contain a unique archaeological resource(s), implement 2018 LRDP Mitigation Measure 3.4-1b.

2018 LRDP Mitigation Measure 3.4-1a: Identify and protect unknown archaeological resources.

During Project-specific environmental review of development under the 2018 LRDP, the campus shall define each Project's area of effect for archaeological resources. The campus shall determine the potential for the Project to result in cultural resource impacts, based on the extent of ground disturbance and site modification anticipated for the proposed Project. The campus shall determine the level of archaeological investigation that is appropriate for the Project site and activity, as follows:

- Minimum: excavation less than 18 inches deep and less than 1,000 sf of disturbance (e.g., a trench for lawn irrigation, tree planting, etc.). Implement Mitigation Measure 3.4-1a(1).
- Moderate: excavation below 18 inches deep and/or over a large area on any site that has not been characterized as sensitive and is not suspected to be a likely location for archaeological resources. Implement Mitigation Measure 3.4-1a(1) and (2).
- Intensive: excavation below 18 inches and/or over a large area on any site that is within the zone of archaeological sensitivity identified in Exhibit 3.4-1, or that is adjacent to a recorded archaeological site. Implement Mitigation Measure 3.4-1a(1), (2), and (3).

UC Davis shall implement the following steps to identify and protect archaeological resources that may be present in the Project's area of effects:

1) For Project sites at all levels of investigation, contractor crews shall be required to attend a training session prior to the start of earth moving, regarding how to recognize archaeological sites and artifacts and what steps shall be taken to avoid impacts to those sites and artifacts. In addition, campus employees whose work routinely involves disturbing the soil shall be informed how to recognize evidence of potential archaeological sites and artifacts. Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify the UC Davis Office of Campus Planning and Environmental Stewardship if any are found. In the event of a find, the campus shall implement item (5), below.

2) For Project sites requiring a moderate or intensive level of investigation, a surface survey shall be conducted by a qualified archaeologist once the area of ground disturbance has been identified and prior to soil disturbing activities. For sites requiring moderate investigation, in the event of a surface find, intensive investigation will be implemented, as per item (3), below. Irrespective of findings, the qualified archaeologist shall, in consultation with the UC Davis Office of Campus Planning and Environmental Stewardship, develop an archaeological monitoring plan to be implemented during the construction phase of the Project. If the Project site is located within the zone of archaeological sensitivity or it is recommended by the archaeologists, the campus shall notify the appropriate Native American tribe and extend an invitation for monitoring. The frequency and duration of monitoring shall be adjusted in accordance with survey results, the nature of construction activities, and results during the monitoring period. A written report of the results of the monitoring will be prepared and filed with the appropriate Information Center of the California Historical Resources Information System. In the event of a discovery, the campus shall implement item (5), below.

3) For Project sites requiring intensive investigation, irrespective of surface finds, the campus shall retain a qualified archaeologist to conduct a subsurface investigation of the Project site, to ascertain whether buried archaeological materials are present and, if so, the extent of the deposit relative to the Project's area of effects. If an archaeological deposit is discovered, the archaeologist will prepare a site record and a written report of the results of investigations and filed with the appropriate Information Center of the California Historical Resources Information System.

   If it is determined that the resource extends into the Project's area of effects, the resource will be evaluated by a qualified archaeologist, who will determine whether it qualifies as a historical resource or a unique archaeological resource under the criteria of CEQA Guidelines § 15064.5. If the resource does not qualify, or if no resource is present within the Project's area of effects, this will be noted in the environmental document and no

further mitigation is required unless there is a discovery during construction. In the event of a discovery item (5), below shall be implemented.

4) If archaeological material within the Project's area of effects is determined to qualify as an historical resource or a unique archaeological resource (as defined by CEQA), the UC Davis Office of Campus Planning and Environmental Stewardship shall consult with the qualified archaeologist to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that will permit avoidance or substantial preservation in place of the resource. If avoidance or substantial preservation in place is not possible, the campus shall implement Mitigation Measure 3.4-1b.

5) If archaeological material is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. The UC Davis Office of Campus Planning and Environmental Stewardship shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the Project area to determine whether the resource is significant and would be affected by the Project. Mitigation Measure 3.4-1a, steps (3) and (4) shall be implemented.

2018 LRDP Mitigation Measure 3.4-1b: Protect known unique archaeological resources.

For an archaeological site that has been determined by a qualified archaeologist to qualify as a unique archaeological resource through the process set forth under Mitigation Measure 3.4-1a, and where it has been determined under Mitigation Measure 3.4-1a that avoidance or preservation in place is not feasible, a qualified archaeologist, in consultation with the UC Davis Office of Campus Planning and Environmental Stewardship, and Native American tribes as applicable, shall:

1) Prepare a research design and archaeological data recovery plan for the recovery that will capture those categories of data for which the site is significant, and implement the data recovery plan prior to or during development of the site.

2) Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center, and provide for the permanent curation of recovered materials.

3) If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the CRHR, the UC Davis Office of Campus Planning and Environmental Stewardship shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the site to be preserved intact, such as project redesign, placement of fill, or project relocation or abandonment. If no such measures are feasible, the campus shall implement Mitigation Measure 3.4-1c.

BIOLOGICAL RESOURCES

OPR Mitigation Measure 3.5-1: Avoidance of Swainson's hawk and other nesting raptors.

Implement 2018 LRDP Mitigation Measure 3.5-4a.

2018 LRDP Mitigation Measure 3.5-4a: Avoidance of Swainson's hawk and other nesting raptors.

For any Projects implemented under the 2018 LRDP that would require the removal of mature trees, the following measures will be implemented prior to initiation of construction to avoid, minimize, and fully mitigate impacts to Swainson's hawk, as well as other special-status raptors:

1) Before tree removal occurs, a qualified biologist will determine whether it has been previously recorded or used as a Swainson's hawk or other special-status raptors nest tree. If it is not known to have supported Swainson's hawks or other special-status raptors in the past, the tree will be removed when no active nests are present, generally between September 2 and February 14 if feasible. If the tree to be removed is known to have supported nesting Swainson's hawk or other special-status raptors in the past, UC Davis will implement measures to prevent the potential the net loss of Swainson's hawk or other special-status raptors territories, which may include providing alternative nest trees or protected habitat. UC Davis will consult with CDFW prior to removal of the nest tree and obtain take authorization under Section 2081 of the Fish and Game Code if needed.

2) For construction activities, including tree removal, that begin between February 15 and September 1, qualified biologists will conduct preconstruction surveys for Swainson's hawk and other nesting raptors to identify active nests on and within 0.5 mile of the Project site. The surveys will be conducted before the beginning of any construction activities between February 15 and September 1.

3) Impacts to nesting Swainson's hawks and other raptors will be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Project activity will not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or that reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of 0.25-mile-wide buffer for Swainson's hawk and 500 feet for other raptors, but the size of the buffer may be adjusted if a qualified biologist and UC Davis, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

4) Trees will not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.

OPR Mitigation Measure 3.5-2: Preconstruction bat survey and exclusion.

Implement 2018 LRDP Mitigation Measure 3.5-8b.

2018 LRDP Mitigation Measure 3.5-8b: Bat preconstruction surveys, exclusion, and mitigation.

The following mitigation measure will apply to construction of the project to reduce impacts on bats:

1) Before commencing any structure or tree removal activities, a qualified biologist will conduct surveys for roosting bats. If evidence of bat use is observed, the species and number of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study and no mitigation will be required.

2) If pallid bats are found, bats will be excluded from the roosting site before the tree or structure is removed. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). Once, it is confirmed that bats are not present in the original roost site, the tree or structure may be removed. A mitigation program identifying exclusion methods and roost removal procedures will be developed by a qualified biologist in consultation with CDFW before implementation.

Mitigation Measure 3.5-5a: Burrowing owl avoidance and compensation.

For any construction projects implemented under the 2018 LRDP, the following measures will be implemented prior to initiation of construction to reduce impacts on burrowing owl:

1) UC Davis will retain a qualified biologist to conduct focused breeding and nonbreeding season surveys for burrowing owls in areas of suitable habitat (e.g., ruderal grassland, annual grassland, agricultural land, roadsides) on and within 1,500 feet of pending construction activities for a project under the 2018 LRDP. Surveys will be conducted prior to the start of construction activities and in accordance with Appendix D of CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012).

2) If no occupied burrows are found, a letter report documenting the survey methods and results will be submitted to CDFW and no further mitigation will be required.

3) If an active burrow is found within 1,500 feet of pending construction activities that would occur during the nonbreeding season (September 1 through January 31), UC Davis will consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan will be developed, as described in Appendix E of CDFW's 2012 Staff Report. Burrowing owls will not be excluded from occupied burrows until the project's burrowing owl exclusion plan is approved by CDFW. The exclusion plan will include a plan for creation, maintenance, and monitoring of artificial burrows in suitable habitat.

4) If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows will not be disturbed and will be provided with a protective buffer unless a qualified biologist verifies through noninvasive means that either: (1) the birds have not begun egg laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer will depend on the time of year and level disturbance as outlined in the CDFW Staff Report (CDFW 2012). The size of the buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to

CDFW is implemented so that burrowing owls are not detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report.

5) If active burrowing owl nests are found on the project site and are destroyed by project implementation, UC Davis will mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW 2012 Staff Report, which states that permanent impacts to nesting, occupied and satellite burrows, and burrowing owl habitat will be mitigated such that habitat acreage and number of burrows are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. UC Davis will retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:

   a) Mitigation lands will be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat, disturbance levels, potential for conflicts with humans, pets, and other wildlife, density of burrowing owls, and relative importance of the habitat to the species range wide. Mitigation for loss of burrowing owl habitat under the 2003 LRDP included establishment of mitigation lands within Russell Ranch, which is a feasible option for future mitigation under the 2018 LRDP.
   b) If feasible, mitigation lands will be provided adjacent or proximate to the project site (e.g. Russell Ranch) so that displaced owls can relocate with reduced risk of take. Feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient suitable habitat to support displaced owls that may be preserved in perpetuity.
   c) If suitable habitat is not available for conservation adjacent or proximate to the project site, mitigation lands will be focused on consolidating and enlarging conservation areas outside of urban and planned growth areas and within foraging distance of other conservation lands. Mitigation may be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. If mitigation credits are not available from an approved bank and mitigation lands are not available adjacent to other conservation lands, alternative mitigation sites and acreage will be determined in consultation with CDFW.
   d) If mitigation is not available through an approved mitigation bank and will be completed through permittee-responsible conservation lands, the mitigation plan will include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success will be based on the number of adult burrowing owls and pairs using the site and if the numbers are maintained over time. Measures of success, as suggested in the 2012 Staff Report, will include site tenacity, number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

GEOLOGY, SOILS, AND SEISMICITY

OPR Mitigation Measure 3.7-1: Manage stormwater flows to reduce soil erosion.

Implement 2018 LRDP Mitigation Measure 3.7-4.

2018 LRDP Mitigation Measure 3.7-4: Manage stormwater flows to reduce soil erosion.

Prior to approval of individual Projects proposed under the 2018 LRDP, UC Davis shall conduct a drainage study in the vicinity of the site proposed for development to determine if the development could produce additional runoff that may exceed the capacity of campus stormwater infrastructure, cause localized ponding to worsen, or increase the potential for property damage from flooding. Recommendations identified in the drainage study shall be incorporated into Project design such that any projected increase in surface water runoff is detained/retained in accordance with applicable requirements and does not exceed current flow rates. Measures may include, but are not limited to, installation of detention/retention basins to capture and manage water, installation of water-retaining landscaping or green-roof features, modifications to existing stormwater capture/conveyance systems, and/or other measures at Project-level or campus-wide to capture and manage stormwater.

HAZARDS AND HAZARDOUS MATERIALS

OPR Mitigation Measure 3.9-1a: Minimize Site-specific investigation and work plan implementation.

Implement 2018 LRDP Mitigation Measure 3.9-2a.

2018 LRDP Mitigation Measure 3.9-2a: Site-specific investigation and work plan implementation.

Where initial investigations indicate the potential for contamination, UC Davis shall conduct soil sampling within the boundaries of the plan area prior to initiation of grading or other groundwork. This investigation will follow the American Society for Testing and Materials standards for preparation of a Phase II Environmental Site Assessment and/or other appropriate testing guidelines. If the results indicate that contamination exists at levels above regulatory action standards, then the site will be remediated in accordance with recommendations made by applicable regulatory agencies, including YCEHD, RWQCB, and DTSC. The agencies involved shall depend on the type and extent of contamination.

Based on the results and recommendations of the investigation described above, UC Davis shall prepare a work plan that identifies any necessary remediation activities, including excavation and removal of on-site contaminated soils, and redistribution of clean fill material within the plan area. The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil removed from the site.

2018 LRDP Mitigation Measure 3.9-2b: Hazardous materials contingency plan.

Prior to initiation of grading or other groundwork, UC Davis shall provide a hazardous materials contingency plan to Campus Safety Services and YCEHD, as appropriate. The plan will describe the necessary actions that would be taken if evidence of contaminated soil or groundwater is encountered during construction. The contingency plan shall identify conditions that could

indicate potential hazardous materials contamination, including soil discoloration, petroleum or chemical odors, and presence of underground storage tanks or buried building material.

If at any time during the course of construction, evidence of soil and/or groundwater contamination with hazardous material is encountered, UC Davis shall immediately halt construction and contact Campus Safety Services and YCEHD. Work shall not recommence until the discovery has been assessed/treated appropriately (through such mechanisms as soil or groundwater sampling and remediation if potentially hazardous materials are detected above threshold levels) to the satisfaction of YCEHD, RWQCB, and DTSC (as applicable).

The plan, and obligations to abide by and implement the plan, shall be incorporated into the construction and contract specifications of the Project.

OPR Mitigation Measure 3.9-2: Prepare and implement site-specific construction traffic management plan.

Implement 2018 LRDP Mitigation Measure 3.9-6.

2018 LRDP Mitigation Measure 3.9-6. Prepare and implement site-specific construction traffic management plans.

UC Davis shall prepare and implement site-specific construction traffic management plans for any construction effort that would require work within existing roadways. To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways during construction activities. At any time only a single lane is available due to construction-related road closures, the campus shall provide a temporary traffic signal, signal carriers (i.e., flag persons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway, the campus shall provide appropriate signage indicating alternative routes. To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, the campus shall inform emergency services, including the UC Davis Police Department, UC Davis Fire Department, and American Medical Response, of the closures and alternative travel routes.

HYDROLOGY AND WATER QUALITY

OPR Mitigation Measure 3.10-2: Manage stormwater flows to reduce soil erosion.

Implement 2018 LRDP Mitigation Measure 3.7-4.

2018 LRDP Mitigation Measure 3.7-4: Manage stormwater flows to reduce soil erosion.

Prior to approval of individual Projects proposed under the 2018 LRDP, UC Davis shall conduct a drainage study in the vicinity of the site proposed for development to determine if the development could produce additional runoff that may exceed the capacity of campus stormwater infrastructure, cause localized ponding to worsen, or increase the potential for property damage from flooding. Recommendations identified in the drainage study shall be incorporated into Project design such that any projected increase in surface water runoff is detained/retained in accordance with applicable requirements and does not exceed current flow rates. Measures may include, but are not limited to, installation of detention/retention basins to capture and manage water, installation of water-retaining landscaping or green-roof

features, modifications to existing stormwater capture/conveyance systems, and/or other measures at Project-level or campus-wide to capture and manage stormwater.

NOISE

OPR Mitigation Measure 3.12-1: Reduce construction noise.

Implement 2018 LRDP Mitigation Measure 3.12-1.

2018 LRDP Mitigation Measure 3.12-1: Reduce construction noise.

For all construction activities, UC Davis shall implement or incorporate the following noise reduction measures into construction specifications for contractor(s) implementation during Project construction:

1) Construction activity shall be limited to the daytime hours between 7:00 a.m. and 7:00 p.m. on weekdays and between 8:00 a.m. and 8:00 p.m. on weekends and holidays, where possible.

2) All construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses, and/or located to the extent feasible such that existing or constructed noise attenuating features (e.g., temporary noise wall or blankets) block line-of-site between affected noise-sensitive land uses and construction staging areas.

3) All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturer recommendations. Equipment engine shrouds shall be closed during equipment operation.

4) Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete offsite instead of onsite) where feasible and consistent with building codes and other applicable laws and regulations.

5) Stationary noise sources such as generators or pumps shall be located 100 feet away or more from noise-sensitive land uses, as feasible.

6) Loud construction activity (i.e., construction activity such as jackhammering, concrete sawing, asphalt removal, and large-scale grading operations) shall not be scheduled during finals week and preferably during holidays, summer/winter break, Thanksgiving break, and spring break.

7) No less than one week prior to the start of construction activities at a particular location, notification shall be provided to academic, administrative, and residential uses located within 100 feet of the construction site.

8) When construction would occur within 100 feet of on-campus housing and may result in temporary noise levels in excess of 86 dBA L_{max} at the exterior of the adjacent housing structure, temporary noise barriers (e.g., noise-insulating blankets or temporary plywood structures) shall be erected that reduce construction-related noise levels to less than 86 dBA L_{max} at the receptor.

9) For any construction activity that must extend beyond the daytime hours of 7:00 a.m. and 7:00 p.m. on weekdays and between 8:00 a.m. and 8:00 p.m. on weekends and occur within 1,120 feet of a building where people sleep, UC Davis shall ensure that interior noise levels of 45 dBA L_{max} are not exceeded at any receiving land use by not exceeding 70 dBA L_{max} at the receiving land use property line. Typical residential structures with windows closed achieve a 25-30 dBA exterior-to-interior noise reduction (Caltrans 2002). Thus, using the lower end of this range, an exterior noise level of 70 dBA L_{max} would ensure interior noise levels do not result in an increased risk for sleep disturbance. To achieve this performance standard, the following measures shall be implemented:

   a) Use of noise-reducing enclosures and techniques around stationary noise-generating equipment (e.g., concrete mixers, generators, compressors).

   b) Installation of temporary noise curtains installed as close as possible to the boundary of the construction site within the direct line of sight path of the nearby sensitive receptor(s) and consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious, material with a surface weight of at least one pound per square foot.

   c) Retain a qualified noise specialist to conduct noise monitoring to ensure that noise reduction measures are achieved the necessary reductions such that levels at the receiving land uses do not exceed exterior noise levels of 70 dBA L_{max}. Exceedances of noise standards shall result in immediate halt of construction until additional noise-reduction measures are implemented.

OPR Mitigation Measure 3.12-2: Reduce noise exposure from new stationary noise sources.

Implement 2018 LRDP Mitigation Measure 3.12-2.

2018 LRDP Mitigation Measure 3.12-2: Reduce noise exposure from new stationary noise sources.

During project design of individual projects proposed under the 2018 LRDP, UC Davis shall review and ensure that external mechanical equipment, including HVAC units associated with new/renovated buildings, incorporates features designed to reduce noise to below 63 dB L_{eq} at any nearby building where people sleep. Design features may include, but are not limited to, locating equipment within equipment rooms or enclosures that incorporate noise reduction features, such as acoustical louvers, and exhaust and intake silencers. Equipment enclosures shall be oriented so that major openings (i.e., intake louvers, exhaust) are directed away from nearby noise-sensitive receptors.

TRANSPORTATION, CIRCULATION, AND PARKING

OPR Mitigation Measure 3.16-1: Implement TDM strategies to reduce vehicle trips on I-80.

Implement 2018 LRDP Mitigation Measure 3.16-1.

2018 LRDP Mitigation Measure 3.16-1: Implement TDM strategies to reduce vehicle trips on I-80.

UC Davis shall institute transportation demand management (TDM) strategies to reduce campus-related peak hour vehicle trips on I-80. Effective TDM strategies include those that would reduce commute and business vehicle travel to and from campus on I-80, including increased transit services, carpool incentive programs, flexible work hours, and remote working options. The implementation of TDM strategies would lessen the 2018 LRDP's contribution to unacceptable LOS F conditions on I-80 under future year conditions.

OPR Mitigation Measure 3.16-4a: Improve the east-west bicycle connection across the Orchard Park site between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive.

UC Davis shall improve the east-west bicycle connection across the Orchard Park site between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive to accommodate project-generated bicycle and vehicle trips. Potential improvement alternatives include:

1) Install a shared-use path on the south side of Orchard Park Circle between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive, either as a conversion of the existing sidewalk facility or a new parallel facility south of the existing sidewalk. Realign the east overcrossing approach with the new shared-use path and retrofit the existing overcrossing access at Orchard Park Circle to form a 90-degree angle. Install a new bicycle crossing on Orchard Park Circle to connect the proposed internal north-south bike path with the new Orchard Park Circle shared-use path. Design of the path should consider potential effects on established vegetation on the south side of Orchard Park Circle.

2) Provide on-street bicycle facilities (e.g., bike lanes, protected bike lanes, etc.) along Orchard Park Circle. Design the transition of Orchard Park Circle at the west entrance to the proposed parking lot to prioritize bicycle access and safety. Use of a roundabout, slip ramp, t-intersection for cars, or other type of mode separation may be appropriate.

3) Replace the existing bike lanes with a two-way Class IV cycletrack on the south side of Orchard Park Circle. This option may require reconstruction of the north or south curb and gutter to ensure adequate right-of-way for two travel lanes and the cycletrack.

4) Modify the site plan to close Orchard Park Circle to vehicle traffic. Remove the existing speeds humps and convert Orchard Park Circle to bicycle-only. Restructure the internal circulation network to allow for a centralized vehicle loading and parking access configuration, including an internal east-west vehicle connection between Orchard Park Drive and the proposed large resident parking lot. For internal roadways, consider utilizing shared-space design principles to encourage low vehicle speeds and activate use of the roadways as a communal space.

5) Close Orchard Park Circle to vehicle traffic. Remove the existing speeds humps and convert Orchard Park Circle to bicycle-only.

6) UC Davis shall modify the existing traffic control along Orchard Road/Orchard Park Circle, including at the Orchard Road/Orchard Park Drive intersection, as the volume and mix of traffic changes to provide a desirable environment for walking and bicycling.

Implementation of any one of alternatives 1 through 5, together with the implementation of alternative 6, would enhance the east-west bicycle connection across the Orchard Park site between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive. New shared-use paths should be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. The bicycle facility improvements described above should be constructed prior to the occupancy of new Orchard Park dwelling units.

OPR Mitigation Measure 3.16-4b: Improve the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road.

UC Davis shall improve the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road to accommodate project-generated bicycle and pedestrian trips traveling to central campus. Potential improvement alternatives include:

1) Widen the existing shared-use path to accommodate bicyclists and pedestrians within a shared facility. Consider installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle zones.

2) Physically separate bicyclists and pedestrians by constructing new pedestrian pathways parallel to the existing shared-use path.

3) Install pedestrian-scale lighting to improve visibility.

4) Reconfigure the Russell Boulevard bike path east approach to Orchard Park Drive so that the bike path approach intersects Orchard Park Drive at a 90-degree angle. The reconfiguration should maintain horizontal curves to slow bicyclists approaching Orchard Park Drive.

Implementation of any one of alternatives 1 through 3, together with the implementation of alternative 4, would enhance the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road. New shared-use paths should be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. The bicycle facility improvements described above should be constructed prior to the occupancy of new Orchard Park dwelling units.

OPR Mitigation Measure 3.16-4c: Improve the north-south bicycle connection between the Orchard Park site and the Health Sciences District.

UC Davis shall improve the north-south bicycle connection between the Orchard Park site and the Health Sciences District. Potential improvement alternatives include:

1) Install new bicycle facilities on Orchard Park Drive between Orchard Park Circle and Extension Center Drive, on Extension Center Drive between Orchard Park Drive and the UC Davis Student Farm, and on the connecting unnamed road between Extension Center Drive and Hutchison Drive. New bicycle facilities could include a mixture of on-street bike lanes and off-street shared-use paths, as feasible. From Hutchison Drive, bicyclists would connect with the existing bike lanes on Health Science Drive into the Health Sciences District.

2) Install new bicycle facilities on Orchard Park Drive between Orchard Park Circle and Extension Center Drive and on Extension Center Drive between Orchard Park Drive and Hutchison Drive. From Hutchison Drive, bicyclists would connect with the existing shared-use path on La Rue Road. New bicycle facilities could include a mixture of on-street bike lanes and off-street shared-use paths, as feasible.

3) Install new shared-use path from Orchard Park Circle to the Hutchison Drive/Health Science Drive intersection. The path could parallel the SR 113 frontage or traverse through the student farms.

Implementation of any one of alternatives 1 through 3 would provide a contiguous north-south bicycle route for project-generated bicycle trips traveling to the Health Sciences District. The bicycle facility improvements described above should be constructed prior to the occupancy of new Orchard Park dwelling units.

OPR Mitigation Measure 3.16-5: Construct new pedestrian facilities to close existing pedestrian network gaps.

UC Davis shall construct new pedestrian facilities and close pedestrian network gaps in the following locations:

1) The north side of Orchard Road between Orchard Park Drive and La Rue Road.

2) One or both sides of Orchard Park Drive between Orchard Road and Extension Center Drive.

3) One or both sides of Extension Center Drive between Orchard Park Drive and Hutchison Drive.

The pedestrian facility improvements described above shall be constructed prior to the occupancy of new Orchard Park dwelling units.

UTILITIES AND SERVICE SYSTEMS

OPR Mitigation Measure 3.17-1: Upsize Sewer Line within Orchard Road.

Prior to operation of student housing at the Orchard Park site, UC Davis shall replace the existing 8-inch sewer line currently within Orchard Road with a 12-inch sewer line. The length of the line to be replaced is approximately 1,050 feet and extends between the Orchard Park site and the 12-inch sewer line within La Rue Road.

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