CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS OF FACT REGARDING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE UC BERKELEY 2021 LONG RANGE DEVELOPMENT PLAN
State Clearinghouse No. 2020040078

I. CERTIFICATION

The University of California ("University" or the "Regents") hereby certifies the Final Environmental Impact Report ("Final EIR" or "EIR") prepared for the University of California, Berkeley ("UC Berkeley") 2021 Long Range Development Plan ("LRDP", herein referred to as the "LRDP Update"), and the Housing Project #1 and Housing Project #2 components of the LRDP Update. The Final EIR consists of the Draft Environmental Impact Report ("Draft EIR"), comment letters, responses to comments, text changes to the Draft EIR, Continuing Best Practices ("CBPs") and the Mitigation Monitoring and Reporting Plan ("MMRP"). In accordance with California Environmental Quality Act ("CEQA") Guidelines § 15090, the University, as Lead Agency for the LRDP Update, certifies that:

1. The Final EIR has been completed in compliance with CEQA;

2. The Final EIR was presented to the University, and the University has received, reviewed, and considered the information contained in the Final EIR and in the administrative record prior to approving the Project;

3. The Final EIR reflects the University's independent judgment and analysis.

The University further certifies that the Final EIR satisfies the requirements for a LRDP EIR prepared pursuant to Public Resources Code § 21080.09 and CEQA Guidelines § 15081.5(b).

The University has exercised its independent judgment in accordance with Public Resources Code § 21082.1(c) in retaining its own environmental consultant and directing the consultant in preparation of the EIR, as well as reviewing, analyzing and revising material prepared by the consultant.

In accordance with Public Resources Code § 21081 and CEQA Guidelines §§ 15091 and 15093, the University has made one or more specific written findings regarding significant impacts associated with the LRDP Update. Those findings are presented below, along with the rationale behind each of the findings. Concurrent with the adoption of these findings, the University adopts the CBPs and MMRP and the Statement of Overriding Considerations.

The documents and other materials that constitute the record of proceedings on which the LRDP Update findings are based are located at UC Berkeley, Office of Physical & Environmental Planning, 300 A&E Building, Berkeley, CA 94720-1382. The custodian for these documents is the Office of Physical & Environmental Planning Department and can be contacted by phone at (510) 643-4793 or via email to: planning@berkeley.edu. This information is provided in compliance with Public Resources Code § 21081.6(a)(2) and CEQA Guidelines § 15091(e).

II. PROJECT BACKGROUND

A. PROJECT DESCRIPTION SUMMARY

The LRDP Update is a comprehensive high-level planning framework to guide land use and capital investment consistent with UC Berkeley's mission, priorities, strategic goals, and enrollment projections through the 2036-37 academic year. The LRDP Update projects a campus population of 48,200 students and 19,000 faculty and staff, and a development program of approximately 8,096,249 gross square feet of academic life, campus life, residential, and parking spaces, including approximately 11,073 student beds and 549 employee beds (see Table 3-1, Proposed LRDP Update Buildout Projections, and Table 3-5, Proposed LRDP Update Housing Program, respectively, in Chapter 3, Project Description, of the Draft EIR).

The EIR Study Area is organized into the five zones (shown on Figure 3-2, EIR Study Area, of the Draft EIR): Campus Park, Hill Campus West, Hill Campus East, Clark Kerr Campus, and City Environs Properties.

The EIR provides a program-level analysis of the overall proposed development and enrollment projections in the LRDP Update. The EIR also functions as a project EIR for two student housing projects, Housing Project #1, which includes the construction and operation of approximately 772 beds in addition to campus life amenities and public commercial and office space, and Housing Project #2, which includes approximately 1,187 student/faculty/staff beds and approximately 125 affordable and supportive housing beds, and public retail and open space.

The proposed LRDP Update, like the current LRDP, does not commit UC Berkeley to any specific project, but provides a strategic framework for decisions on those projects. The development program does, however, establish a maximum amount of net new growth in UC Berkeley's space inventory during this time frame, which the UC Berkeley campus may not substantially exceed without amending the LRDP.

B. PROJECT OBJECTIVES

The following are objectives of the LRDP Update:

- Maintain the Campus Park as the central location for academic life, research, and student life uses as well as student services, and provide a range of adaptable and multipurpose spaces required to promote excellence and leadership in teaching, research, and public service consistent with UC Berkeley's mission and Strategic Plan. Prioritize administrative and student life facilities in locations adjacent to but off of the Campus Park.
- Improve the existing housing portfolio by providing additional new and renovated safe, secure, accessible, and high-quality housing units/beds for undergraduate and graduate students, faculty, and staff required to support a vital inclusive and intellectual community and promote full engagement in campus life in support of the Chancellor's Housing Initiative.

- Improve the existing campus life spaces and provide new accessible, inclusive, and dynamic indoor and outdoor campus life spaces to provide an interconnected natural and built environment with a shared sense of community, interaction, and wellness.
- Maintain natural areas as well as generous natural and built open spaces on the Campus Park and the Clark Kerr Campus.
- Maintain the Hill Campus East as open space that is managed to reduce wildfire risk and as a resource for research and energy resilience, focusing potential development on suitable sites.
- Plan every new project (i.e., renovation, strategic infill/ additions, and new construction) to support the optimal investment of resources, meet space needs and improve space utilization, and address deferred maintenance.
- Further UC Berkeley as a leader in sustainability and meet and strive to exceed UC Berkeley sustainability goals and the goals of the UC Sustainable Practices Policy, Carbon Neutrality Initiative, and Seismic Safety policy.
- Take advantage of UC Berkeley's urban location to prioritize mobility system improvements that promote an accessible, efficient, sustainable, and safe campus.
- Minimize private vehicle access in the Campus Park and prioritize transit, bicycle, and pedestrian access to and across the Campus Park to decrease carbon emissions, congestion, and parking demand.
- Prioritize improvements and create clearly defined routes for bicycle, pedestrian, transit, and micromobility networks to enhance UC Berkeley campus connectivity and safety, to make navigation more intuitive and inclusive, and to ensure access to the campus by all UC Berkeley constituents.
- Plan for a more resilient UC Berkeley campus to protect human health and safety, maintain essential infrastructure services and operational continuity, preserve investment in the physical campus, cultivate adaptable natural systems.
- Maintain and enhance the image and experience of the UC Berkeley campus and support the continuing evolution of the UC Berkeley campus's notable and historic landscapes and architecture.
- Enhance the connectivity between UC Berkeley and surrounding areas through continued support of community partnerships and public programming in areas of shared interest, and the design of campus edges and UC Berkeley-owned properties in the community.
- Maintain, support, and enhance UC Berkeley's status as an internationally renowned, 21st-century, public research-intensive university and center for scientific and academic advancement by expanding its graduate and professional schools, policy institutes, research programs, laboratories, and institutions.

C. ENVIRONMENTAL REVIEW PROCESS AND PROCEDURAL COMPLIANCE WITH CEQA

UC Berkeley launched the LRDP Update in 2019 by engaging campus and community stakeholders in a comprehensive and participatory planning process. The LRDP Update engagement plan was built around three guiding principles: (1) keep the campus and community informed and updated on the LRDP process; (2) promote an inclusive environment of civil dialogue, open discussion, and consensus building; and (3) facilitate and encourage early, ongoing participation. Consistent with

these principles, starting in spring 2019, UC Berkeley held a series of town halls, virtual open houses, tabling and poster sessions, and public information sessions, and presented to various City of Berkeley entities, including the Zoning Adjustment Board, the Landmarks Preservation Commission, and the City Council. UC Berkeley organized a community advisory group (CAG), which included representatives from the neighborhoods surrounding the campus, local business districts, other local education proponents, arts representatives, and the Lawrence Berkeley National Laboratory. The CAG has met quarterly since October 2019, and will continue to meet quarterly until the LRDP is completed. UC Berkeley also provided quarterly updates to the Mayor, councilmembers for adjacent districts, and City of Berkeley staff.

The CEQA environmental review process started on April 7, 2020, with issuance of a Notice of Preparation ("NOP") of an EIR. A 39-day public comment period for the NOP ended on May 15, 2020. A virtual public scoping meeting was held on April 27, 2020, to accept public input on environmental topics to be analyzed in the EIR and approaches to the impact analyses. Written comments received on the NOP are included in Appendix A of the Draft EIR. A copy of the NOP is also included in Appendix A of the Draft EIR.

Pursuant to § 15063 of the CEQA Guidelines, an Initial Study (also included in Appendix A of the Draft EIR) was prepared and determined that implementation of the LRDP Update would have no impact on certain environmental criteria and therefore that these criteria would not be addressed in the EIR. No further analysis beyond that provided in the Initial Study is necessary for those environmental topics.

The Draft EIR for the Project was issued on March 8, 2021, and was made available for a 45-day public review and comment period that ended on April 21, 2021. A Draft EIR Public Hearing was held virtually on March 29, 2021, to receive input from agencies and the public. Copies of the Draft EIR were posted online on the UC Berkeley website, and hard copies were provided for check-out from the Downtown Berkeley Library.

Comment letters received on the Draft EIR and comments read at the public hearing are provided in their entirety in Appendix N of the Final EIR.

UC Berkeley received a total of 146 comment letters, which included four from governmental agencies, 12 from private organizations, and 112 from individuals, as well as 18 comments read at the public hearing.

The Final EIR was completed and published on July 7, 2021. The EIR consists of two documents: the Draft EIR issued in March 2021 and the Final EIR issued in July 2021. Chapter 5 of the Final EIR consists of comments received during the public review period for the Draft EIR, and provides responses to those comments. Chapter 3 of the Final EIR contains revisions to the Draft EIR to clarify, amplify, or correct information in the Draft EIR, and associated appendices.

III. ENVIRONMENTAL IMPACTS AND FINDINGS

Pursuant to Public Resources Code § 21081 and CEQA Guidelines § 15091, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more

significant effects on the environment that would occur if the project is approved or carried out unless the public agency makes one or more of the following findings with respect to each significant impact:

1. Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

The University has made one or more of these specific written findings regarding each significant impact associated with the LRDP Update. Those findings are presented below, along with a presentation of facts in support of the findings.

These findings summarize the determinations of the Final EIR with respect to the LRDP Update's environmental impacts before and after mitigation and do not attempt to describe the full analysis of each environmental impact considered in the Final EIR. Instead, the findings provide a summary description of each impact, describe the applicable Continuing Best Practices and mitigation measures, if any, identified in the Final EIR and adopted by the University for the LRDP Update, and state the University's findings regarding the significance of each impact after imposition of the adopted Continuing Best Practices and mitigation measures. The Final EIR contains a full explanation of each impact, Continuing Best Practice and mitigation measure, and the analysis that led the University to its conclusions on those impacts. These findings hereby incorporate by reference the discussion and analysis in the Final EIR, which supports the Final EIR's determinations regarding the Project's environmental impacts, Continuing Best Practices and mitigation measures. In making these findings, the University ratifies, adopts, and incorporates by reference the Final EIR's analysis, determinations, and conclusions relating to environmental impacts, Continuing Best Practices and mitigation measures, except to the extent that any such determinations and conclusions are specifically and expressly modified by these findings.

In adopting the Continuing Best Practices and mitigation measures described below, the University intends to adopt each of the Continuing Best Practices and mitigation measures recommended in the Final EIR related to the LRDP Update. Accordingly, in the event that a Continuing Best Practice or mitigation measure recommended in the Final EIR has been inadvertently omitted from these findings, that Continuing Best Practice or mitigation measure is hereby adopted and incorporated by reference in the findings. Additionally, in the event that the description of Continuing Best Practices or mitigation measures set forth below fails accurately to capture the substance of a given Continuing Best Practices or mitigation measure due to a clerical error (as distinct from specific and express modification by the University through these findings), the language of the Continuing Best Practice or mitigation measure as set forth in the Final EIR shall govern.

The EIR evaluation included a detailed analysis of impacts in eighteen environmental disciplines or issues, analyzing the LRDP Update and alternatives to the LRDP Update, including a No Project

Alternative. The EIR discloses the environmental impacts expected to result from the construction and operation of future development under the LRDP Update. Where possible, Continuing Best Practices and mitigation measures were identified to avoid or minimize significant environmental effects. In addition, the University committed to implementing measures in order to reduce the direct and indirect impacts that will result from LRDP Update activities. The mitigation measures identified in the EIR are measures proposed by the lead agency, responsible, or trustee agencies or other persons that were not included in the Project, but could reasonably be expected to reduce adverse impacts if required as conditions of approving the Project, as required by CEQA Guidelines § 15126.4(a)(1)(A).

A. Findings on Less-than-Significant Impacts

FINDING: Based on the issue area assessment in the EIR, the University has determined that the LRDP Update will have no impact or less-than-significant impacts for several issues as summarized in Table 1. The rationale for the conclusion that no significant impact would occur in each of the issue areas in Table 1 is based on the discussion of these impacts in the detailed issue area and cumulative impacts analyses in Chapter 5 of the Draft EIR that were found to have no impact or less-than-significant impacts. Continuing Best Practices are noted in parentheses, where relevant to impact determinations, based on the analyses in Chapter 5 of the Draft EIR.

Table 1: Summary of No Impacts or Less-than-Significant Impacts for the LRDP Update

Environmental Impacts
Draft EIR Section 5.1: Aesthetics
AES-1: The proposed project would not have a substantial adverse effect on a scenic vista. **AES-2**: The proposed project is in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality. (CBP AES-1 through CBP AES-5) **AES-4**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to aesthetics.
Draft EIR Section 5.2: Air Quality
AIR-4: The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **AIR-5**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a cumulative impact with respect to toxic air contaminants.
Draft EIR Section 5.3: Biological Resources
BIO-1: The proposed project would not 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 CDFW or USFWS. (CBP BIO-1 through CBP BIO-3) **BIO-2**: The proposed project would not 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 CDFW or USFWS. (CBP BIO-4 and CBP BIO-5) **BIO-3**: The proposed project would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (CBP BIO-4 and CBP BIO-6) **BIO-5**: The project would not conflict with any local policies or ordinances protecting

biological resources, such as a tree preservation policy or ordinance. (CBP BIO-9 through CBP BIO-11) **BIO-6**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to biological resources.
Draft EIR Section 5.4: Cultural Resources
CUL-3: The project would not disturb any human remains, including those interred outside of dedicated cemeteries. (CBP CUL-1)
Draft EIR Section 5.5: Energy
ENE-1: The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (CBP AIR-1, CBP TRAN-1, and CBP USS-3) **ENE-2**: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **ENE-3**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to energy.
Draft EIR Section 5.6: Geology and Soils
GEO-1: The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides. (CBP GEO-1 through CBP GEO-8) **GEO-2**: The proposed project would not result in substantial soil erosion or the loss of topsoil. (CBP GEO-9) **GEO-3**: The proposed project is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **GEO-4**: The proposed project is not located on expansive soil, creating substantial direct or indirect risks to life or property. **GEO-6**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to geology and soils.
Draft EIR Section 5.7: Greenhouse Gas Emissions
GHG-1: The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. **GHG-3**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in a less-than-significant cumulative impact with respect to greenhouse gas emissions.
Draft EIR Section 5.8: Hazards and Hazardous Materials
HAZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (CBP HAZ-1 through CBP HAZ-4) **HAZ-2**: The proposed project would not 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.

HAZ-3: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school in a manner that would have an adverse impact on students and staff.

HAZ-4: The proposed project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but would not, as a result, create a significant hazard to the public or the environment.

HAZ-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (CBP HAZ-5)

HAZ-6: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a cumulative impact with respect to hazards and hazardous materials.

Draft EIR Section 5.9: Hydrology and Water Quality

HYD-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (CBP HYD-1 through CBP HYD-6)

HYD-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (CBP HYD-7)

HYD-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in a substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows. (CBP HYD-8 through CBP HYD-13)

HYD-4: The proposed project would not risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone.

HYD-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

HYD-6: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to hydrology and water quality.

Draft EIR Section 5.10: Land Use and Planning

LU-1: The proposed project would not physically divide an established community.

LU-2: The proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (CBP AES-4, CBP LU-1, and CBP LU-2)

LU-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impact with respect to land use and planning.

Draft EIR Section 5.12: Population and Housing

POP-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to population and housing.

Draft EIR Section 5.13: Public Services
PS-1: Implementation of the proposed project would not result in the need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (CBP PS-1) **PS-2**: Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to police services. **PS-3**: Implementation of the proposed project would not result in the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (CBP PS-2) **PS-4**: Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to fire protection services. **PS-5**: Implementation of the proposed project would not result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives. (CBP PS-3) **PS-6**: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to school services. **PS-7**: Implementation of the proposed project would not result in the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives. **PS-8**: Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to libraries.
Draft EIR Section 5.14: Parks and Recreation
REC-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks facilities, need for new or physically altered parks facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks services. **REC-2**: The proposed project would not 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. **REC-3**: The proposed project would include recreational facilities but would not result in significant impacts associated with the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **REC-4**: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to parks and recreation.
Draft EIR Section 5.15: Transportation
TRAN-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **TRAN-4**: The proposed project would not result in inadequate emergency access.

Draft EIR Section 5.16: Tribal Cultural Resources
TCR-2: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to tribal cultural resources.
Draft EIR Section 5.17: Utilities and Service Systems
UTIL-1: Implementation of the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. (CBP USS-1 through CBP USS-4) **UTIL-2**: Implementation of the proposed project would have sufficient water supplies available from existing entitlements, conservation plans and resources, and would not require new or expanded entitlements. **UTIL-3**: Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to water supply. **UTIL-4**: Implementation of the proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment or facilities, the construction or relocation of which could cause significant environmental effects. (CBP USS-2 through CBP USS-5) **UTIL-5**: Implementation of the proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. **UTIL-6**: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects would not result in cumulatively considerable impacts with respect to wastewater service. **UTIL-7**: Implementation of the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. (CBP HYD-13) **UTIL-8**: Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to stormwater infrastructure. **UTIL-9**: Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs and would not generate waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals. (CBP USS-6 and CBP USS-7) **UTIL-10**: Implementation of the proposed project would comply with federal, State, and local statutes and regulations related to solid waste. **UTIL-11**: Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to solid waste. **UTIL-12**: Implementation of the proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities. (CBP USS-8) **UTIL-13**: Implementation of the proposed project, in combination with past, present and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to electrical power, natural gas, or telecommunications facilities.

Draft EIR Section 5.18: Wildfire
WF-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

B. Findings on Significant Environmental Impacts That Can Be Reduced to a Less-than-Significant Level

FINDING: The University finds that the following environmental impacts can and will be mitigated to below a level of significance based upon the implementation of the Continuing Best Practices and mitigation measures in the EIR. These findings are based on the discussion of impacts in the detailed issue area and cumulative impact analyses in Chapter 5.1, Aesthetics; Chapter 5.3, Biological Resources; Chapter 5.4, Cultural Resources; Chapter 5.6, Geology and Soils; Chapter 5.7, Greenhouse Gas Emissions; Chapter 5.11, Noise; Chapter 5.12, Population and Housing; Chapter 5.15, Transportation; and Chapter 5.16, Tribal Cultural Resources, of the Draft EIR. An explanation of the rationale for each finding is presented below.

1. Aesthetics

(a) ***Impact AES-3:*** *The potential addition of a solar array in the Hill Campus East under the LRDP Update could potentially result in glare that may adversely affect views in the area.*

FINDING: As part of the proposed project, UC Berkeley will implement the following aesthetics CBPs:

CBP AES-6: Lighting for new development projects will be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces and minimize atmospheric light pollution. The only exception to this principle will be in those areas where such features would be incompatible with the visual and/or historic character of the area.

CBP AES-7: As part of UC Berkeley's design review procedures, light and glare will be given specific consideration and measures will be incorporated into the project design to minimize both. In general, exterior surfaces will not be reflective; architectural screens and shading devices are preferable to reflective glass.

For the reasons stated in the Final EIR (Draft EIR at page 5.1-16 to 5.1-17), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact AES-3. Specifically, Mitigation Measure AES-3 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact AES-3 to a less-than-significant level.

Mitigation Measure AES-3: In the event that UC Berkeley installs a solar array in the Hill Campus East, or elsewhere in the LRDP Planning Area**,** prior to the installation of the photovoltaic panels the Campus Architect shall review the panel specifications and construction plans so that the panels are designed and installed to ensure the following:

- The angle at which panels are installed precludes, or minimizes to the maximum extent

practicable, glare observed by viewers on the ground.

- The reflectivity of materials used shall not be greater than the reflectivity of standard materials used in residential and commercial developments.
- The project would not have potential significant glare or reflectivity impacts to viewers on the ground.

Rationale for Finding: Implementation of CBP AES-6, CBP AES-7 and Mitigation Measure AES-3 will reduce glare impacts by employing appropriate design standards and minimizing the quantity of reflective material used in solar panels in the Hill Campus East; as such, glare impacts would be reduced to less-than-significant levels. CBP AES-6 and CBP AES-7 would ensure that lighting is designed to reduce potential light spillage and glare, and the ongoing implementation of CBP AES-6 and CBP AES-7 would not create additional light and glare impacts.

2. Biological Resources

(a) ***Impact BIO-4:*** *New buildings and structures would create potential impacts associated with increased risk of bird collisions.*

FINDING: As part of the proposed project, UC Berkeley will implement the following biological resource CBPs:

CBP BIO-7: Proposed projects in the Hill Campus East will be designed to avoid obstructing important wildlife corridors to the full feasible extent. Before any new fencing is installed for security purposes, UC Berkeley will consider the effect of such fencing on opportunities for wildlife movement, and will avoid new or expanded fencing which would obstruct important movement corridors. If fencing is deemed necessary in an important movement corridor, UC Berkeley will explore fencing options that allow for wildlife movement.

CBP BIO-8: During planning and feasibility studies prior to development of specific projects or implementation of management plans in the Hill Campus East, a habitat assessment will be conducted by a qualified biologist to identify and minimize potential impacts on wildlife movement opportunities, including avoidance of new fencing across Strawberry Creek and tributary drainages. A report of findings will be prepared by the qualified biologist and submitted to the UC Berkeley project manager for review and approval prior to initiation of grading, vegetation removal, or construction activities.

For the reasons stated in the Final EIR (Draft EIR at page 5.3-31 to 5.3-33), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact BIO-4. Specifically, Mitigation Measure BIO-4 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact BIO-4 to a less-than-significant level.

Mitigation Measure BIO-4: Structures and buildings that are new or are taller than existing structures and buildings shall be designed to minimize the potential risk of bird collisions. This should at a minimum include the following design considerations and management strategies: (1) avoid the use of highly reflective glass as an exterior treatment, which appears to reproduce

natural habitat and can be attractive to some birds; (2) limit reflectivity and prevent exterior glass from attracting birds in building plans by utilizing low-reflectivity glass and providing other non-attractive surface treatments; (3) use low-reflectivity glass or other bird safe glazing treatments for the majority of the building's glass surface, not just the lower levels; (4) for office and commercial buildings, interior light "pollution" should be reduced during evening hours through the use of a lighting control system programmed to shut off during non-work hours and between 10 p.m. and sunrise; (5) exterior lighting should be directed downward and screened to minimize illuminating the exterior of the building at night, except as needed for safety and security; (6) untreated glass skyways or walkways, freestanding glass walls, and transparent building corners should be avoided; (7) transparent glass should not be allowed at the rooflines of buildings, including in conjunction with green roofs; and (8) all roof mechanical equipment should preferably be covered by low-profile angled roofing or other treatments so that obstacles to bird flight are minimized. These strategies shall be incorporated at the direction of the Campus Architect during plan review, and the Campus Architect shall confirm the incorporation of these strategies into architectural plans prior to building construction. The Campus Architect shall incorporate additional strategies to avoid or reduce avian collisions that are indicated by the best available science.

Rationale for Finding: Implementation of CPB BIO-7, CBP BIO-8 and Mitigation Measure BIO-4 will reduce risk of bird collisions by minimizing the quantity of reflective material used in the construction of new or taller structures, reducing light pollution, and employing design techniques to minimize obstacles to bird flight; as such, impacts associated with bird strikes would be reduced to less-than-significant levels. Continuing implementation of CBP BIO-7 and CBP BIO-8 would ensure that any expansion of areas requiring controlled access and security would consider the effects of fencing on wildlife movement opportunities on the Hill Campus East, and the ongoing implementation would not create additional impacts to wildlife movement.

3. Cultural Resources

(a) ***Impact CUL-2:*** *The proposed project has the potential to disturb unknown archaeological resources that could exist beneath the depth of previous ground disturbances and result in a significant impact to an archaeological resource.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.4-42 to 5.4-44), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact CUL-2. Specifically, Mitigation Measure CUL-2 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact CUL-2 to a less-than-significant level.

Mitigation Measure CUL-2: For construction projects that include substantial ground-disturbing activities (including, but not limited to, soil removal, parcel grading, new utility trenching, and foundation-related excavation), UC Berkeley shall implement the following steps to ensure impacts to archaeological resources will be less than significant.

- All Projects with Ground-Disturbing Activities.
  - Prior to soil disturbance, UC Berkeley shall confirm that contractors have been notified

of the procedures for the identification of federal- or State-eligible cultural resources, and that the construction crews are aware of the potential for previously undiscovered archaeological resources or tribal cultural resources on site, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.

- If a resource is discovered during construction (whether or not an archaeologist is present), the following measures shall be implemented:
  - All soil disturbing work within 35 feet of the find shall cease.
  - UC Berkeley 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.
  - Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of the California Environmental Quality Act (CEQA) criteria by a qualified archaeologist.
  - If the resource is a tribal cultural resource, the consulting archaeologist, approved by UC Berkeley in consultation with the appropriate tribe as determined by the Native American Heritage Commission, shall consult with the appropriate tribe to evaluate the significance of the resource and to recommend appropriate and feasible avoidance, testing, preservation or mitigation measures, in light of factors such as the significance of the find, proposed project design, costs, and other considerations.
  - If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be implemented.
  - If the resource is a non-tribal resource determined significant under CEQA, a qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant.
  - The archaeologist shall also perform appropriate technical analyses; prepare a comprehensive report complete with methods, results, and recommendations; and provide for the permanent curation of the recovered resources if appropriate.
  - The report shall be submitted to the relevant city (if it falls under Berkeley or Oakland boundaries), California Historic Resources Information System Northwest Information Center, and the State Historic Preservation Office, if required.

- **Areas with High Archaeological Sensitivity.** In addition to the requirements above for all construction projects with ground-disturbing activities, for projects in areas with moderately high to extreme archaeological sensitivity (as shown on the confidential Figure 11, Prehistoric Cultural Sensitivity Overlay Analysis Results, prepared for the 2021 LRDP Update EIR) ground-disturbing activities shall be monitored from the outset. Monitoring shall occur for soil removal, parcel grading, new utility trenching, and foundation-related excavation in those areas that extend into previously undisturbed soils. If the resources are tribal, archaeological monitoring must be undertaken by a qualified archaeologist approved by UC Berkeley in consultation with the appropriate tribe as determined by the Native American Heritage Commission or the appropriate tribe, who is familiar with a wide range of prehistoric archaeological or tribal remains and be conversant in artifact identification,

human and faunal bone, soil descriptions, and interpretation. Based on project-specific daily construction schedules, field conditions, and archaeological observations, full-time monitoring may not be warranted following initial observations.

- **Sites with Known Archaeological Resources.** In the event the disturbance of a site with known archaeological or tribal cultural resources cannot be avoided, in addition to the requirements above for all construction projects with ground-disturbing activities, for project sites with known on-site archaeological or tribal cultural resources, the following additional actions shall be implemented prior to ground disturbance:
  - UC Berkeley, in consultation with the appropriate tribe, will retain a qualified archaeologist to conduct a subsurface investigation of the project site, and to ascertain the extent of the deposit of any buried archaeological materials relative to the project's area of potential effects. The archaeologist shall prepare a site record and, upon tribal approval, it shall be filed with the California Historical Resource Information System.
  - If the resource extends into the project's area of potential effects, the resource shall be evaluated by a qualified archaeologist approved by UC Berkeley in consultation with the appropriate tribe. UC Berkeley shall consider this evaluation in determining whether the resource qualifies as a historical resource or a unique archaeological resource under the criteria of California Environmental Quality Act (CEQA) Guidelines Section 15064.5.
    - If the resource does not qualify, no further mitigation is required unless there is a discovery of additional resources during construction (as required above for all construction projects with ground-disturbing activities).
    - If a resource is determined to qualify as an historical resource or a unique archaeological resource in accordance with CEQA, UC Berkeley shall consult with the appropriate tribe (in the case of Native American sites) and a qualified archaeologist, approved by UC Berkeley in consultation with the appropriate tribe, to mitigate the effect through data recovery if appropriate to the resource or, if data recovery is infeasible, to consider means of avoiding or reducing ground disturbance within the site boundaries, including where and if feasible, minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that would permit avoidance or substantial preservation in place of the resource. A written report of the results of investigations shall be prepared by a qualified archaeologist and, upon tribal approval, filed with the University Archives/ Bancroft Library and the California Historic Resources Information System Northwest Information Center.

Rationale for Finding: Implementation of Mitigation Measure CUL-2 will require appropriate procedures to minimize potential impacts to previously undiscovered archaeological resources or tribal cultural resources during ground-disturbing activities and in areas with high archaeological sensitivity; as such, impacts to archaeological resources would be reduced to less-than-significant levels.

4. Geology and Soils

(a) ***Impact GEO-5:*** *Construction of new development or redevelopment within highly sensitive geologic formations would have the potential to adversely*

affect unique paleontological resources.

FINDING: As part of the proposed project, UC Berkeley will implement the following geology and soils CBP:

> **CBP GEO-10:** In the event that a unique paleontological resource is identified during project planning or construction, the work will stop immediately in the area of effect, and the find will be protected until its significance can be determined by a qualified paleontologist. If the resource is determined to be a "unique resource," a mitigation plan will be formulated pursuant to guidelines developed by the Society of Vertebrate Paleontology and implemented to appropriately protect the significance of the resource by preservation, documentation, and/or removal, prior to recommencing activities in the area of effect. The plan will be prepared by the qualified paleontologist and submitted to the UC Berkeley project manager for review and approval prior to initiation or recommencement of construction activities in the area of effect.

For the reasons stated in the Final EIR (Draft EIR at page 5.6-34 to 5.6-35), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact GEO-5. Specifically, Mitigation Measure GEO-5 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact GEO-5 to a less-than-significant level.

> **Mitigation Measure GEO-5:** For ground-disturbing activities within highly sensitive geologic formations (i.e., Franciscan Assemblage, Great Valley Sequence, Orinda Formation, Claremont Chert, unnamed mudstone, or older alluvium, as shown on Figure 5.6-1, Geologic Map, of the 2021 LRDP Update EIR), if pre-construction testing does not take place, ground-disturbing activities shall implement the following measures. "Ground-disturbing activities" shall include soil removal, parcel grading, utility trenching, and foundation-related excavation in those areas that extend into previously undisturbed soils.
>
> - UC Berkeley shall provide a paleontological resources awareness training program to all construction personnel active on the project site during earth moving activities. The first training will be provided prior to the initiation of ground-disturbing activities by a qualified paleontologist. The program will include relevant information regarding fossils and fossil-bearing formations that may be encountered. The training will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site.
> - If any paleontological resources are encountered during ground-disturbing activities, the contractor shall ensure that activities in the immediate area of the find are halted and that UC Berkeley is informed. UC Berkeley shall retain a qualified paleontologist to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology, including development and implementation of a paleontological resource impact mitigation program by a qualified paleontologist for treatment of the particular resource, if applicable. These measures may include, but not be limited to the following:
>   - salvage of unearthed fossil remains and/or traces (e.g., tracks, trails, burrows);
>   - screen washing to recover small specimens;
>   - preparation of salvaged fossils to a point of being ready for curation (e.g., removal of

enclosing matrix, stabilization and repair of specimens, and construction of reinforced support cradles); and

- identification, cataloging, curation, and provision for repository storage of prepared fossil specimens.

Rationale for Finding: Implementation of CBP GEO-10 and Mitigation Measure GEO-5 will require appropriate procedures to reduce potential impacts to paleontological resources during ground-disturbing activities in highly sensitive geological formations, if pre-construction testing has not taken place; as such, impacts to paleontological resources would be reduced to less-than-significant levels. CBP GEO-10 establishes procedures to be followed in the event that a unique paleontological resource is discovered, and the ongoing implementation of CBP GEO-10 would not create additional impacts to paleontological resources.

5. Greenhouse Gas Emissions

(a) ***Impact GHG-2:*** *GHG emissions resulting from the proposed LRDP Update could exceed the UCOP and UC Berkeley carbon neutrality goals derived from the State's long-term climate change goals under EO B-55-18.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.7-36 to 5.7-42), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact GHG-2. Specifically, Mitigation Measure GHG-2 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact GHG-2 to a less-than-significant level.

Mitigation Measure GHG-2: UC Berkeley shall make the following separate, though overlapping, greenhouse gas (GHG) emission reduction commitments (1) By 2036, UC Berkeley shall offset 67 percent of GHG emissions; and (2) By 2045 and thereafter, UC Berkeley shall achieve carbon neutrality (100 percent offset). Years 2036 and 2045 reduction targets are required to be achieved based on actual emission calculations completed in the future, as discussed below under "Measure Monitoring and Reporting," and may therefore change over time.

UC Sustainable Practices Policy. UC Berkeley will purchase voluntary carbon credits as the final action to reach the GHG emission reduction targets outlined in the UC Sustainable Practices Policy. As part of the University Carbon Neutrality Initiative, internal guidelines have been developed to ensure that any use of credits for this purpose will result in additional, verified GHG emissions reductions from actions that align as much as possible with UC Berkeley's research, teaching, and public service mission.

Emissions Reduction Options. UC Berkeley shall do one or more of the following options to reduce GHG emissions generated by the proposed LRDP Update to achieve the measure performance standards.

1. **Option 1: On-site GHG Reduction Actions.** Implement on-site GHG reduction actions at UC Berkeley specified in the UC Sustainable Practices Policy and UC Berkeley sustainability plans, standards and policies.

2. **Option 2: Voluntary and UC Developed Carbon Offsets.** In addition to compliance offsets required by cap and trade, UC Berkeley may purchase GHG carbon offsets from a voluntary GHG carbon offset provider with an established protocol that requires projects generating GHG carbon offsets to demonstrate that the reduction of GHG emissions are real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health and Safety Code Sections 38562(d)(1) and (2)).UC Berkeley may purchase GHG carbon offsets from UC developed voluntary carbon offset projects that are real, permanent, quantifiable, peer verifiable, enforceable, and additional. Definitions for these terms follow.
    a. **Real:** Estimated GHG reductions should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project's effects. The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as "leakage"). To ensure that GHG reductions are real, CARB requires the reduction to be a direct reduction within a confined project boundary.
    b. **Additional:** GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. "Business as usual" reductions (i.e., those that would occur in the absence of a GHG reduction market) should not be eligible for registration.
    c. **Permanent:** To function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions.
    d. **Quantifiable:** The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage.
    e. **Verified:** GHG reductions must result from activities that have been verified. Verification requires third-party (or peer review if UC-developed voluntary carbon offset projects) of monitoring data for a project to ensure the data are complete and accurate.
    f. **Enforceable:** The emission reductions from offset must be backed by a legal instrument or contract that defines exclusive ownership and can be enforced within the legal system in the country in which the offset project occurs or through other compulsory means. Please note that for this mitigation measure, only credits originating within the United States are allowed.

Mitigation Reporting. As a CARB-covered entity, UC Berkeley will ensure emissions generated by the cogeneration plant and other stationary sources comply with CARB's Cap and Trade Program. Likewise, UC Berkeley will implement the UC Sustainable Practices Policy to meet the requirement of carbon neutrality for Scope 1 and 2 emissions by 2025 and carbon neutrality for Scope 3 emissions by 2045, as described above. These commitments will be incorporated into UC Berkeley's annual GHG inventory, which is used to track GHG emissions and sources on the UC Berkeley campus. GHG reductions achieved by the on-site and off-site actions will be incorporated into the annual GHG inventory and annual reporting practices established by the

UC Sustainable Practices Policy. As part of this reporting, the estimated annual emissions shall then be compared to the measure performance standards (i.e., 67 percent reduction by 2036 and 100 percent by 2045) to determine the level of additional GHG reductions (if any) that may be required.

Rationale for Finding: Implementation of Mitigation Measure GHG-2 will require UC Berkeley to offset 67 percent of GHG emissions by 2036 and achieve carbon neutrality by 2045, and identifies specific actions for UC Berkeley to implement to achieve performance standards; as such, GHG emissions impacts would be reduced to less-than-significant levels.

6. Noise

(a) ***Impact NOI-2:*** *Construction could result in excessive groundborne vibration to nearby sensitive receptors.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.11-44 to 5.11-48), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact NOI-2. Specifically, Mitigation Measure NOI-2 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact NOI-2 to a less-than-significant level.

Mitigation Measure NOI-2: If any vibration causing construction activities/equipment are anticipated to be used for future development projects, UC Berkeley shall implement the following steps to ensure impacts from vibration causing construction activities/equipment will be less than significant.

- **Step 1 (Activity/Equipment Screening Distances):** UC Berkeley shall use the construction vibration screening standards shown below based on Federal Transit Administration criteria

Screening Distances to PPV in/sec Threshold: Building Damage			
Activity/Equipment	Reference Vibration Levels (in/sec PPV) at 25 feet	Screening Level Distance in feet for 0.20 in/sec PPV [a]	Screening Level Distance in feet for 0.12 in/sec PPV [b]
Pile Driving	1.518	97	136
Caisson Drilling	0.089	15	21
Vibratory Roller	0.21	26	37
Large Bulldozer	0.089	15	21
Screening Distance to VdB Threshold: Human Annoyance and Sensitive Equipment Disturbance			
Activity/Equipment	Reference Vibration Levels (VdB) at 25 feet	Screening Level Distance in feet for 72 VdB [c]	Screening Level Distance in feet for 65 VdB [d]
Pile Driving	112	520	890
Caisson Drilling	87	80	140
Vibratory Roller	94	140	240
Large Bulldozer	87	80	140

Notes: Peak Particle Velocity inches per second (PPV in/sec); Vibration Decibel (VdB).
a. FTA Building Category III, Non-engineered timber and masonry buildings (residential).
b. FTA Building Category IV, Buildings extremely susceptible to vibration damage (historic).
c. FTA Land Use Category 2, Residences and buildings where people normally sleep.
d. FTA Land Use Category 1, Buildings where vibration would interfere with interior operations.
Source: Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment.

to determine if the construction activity/equipment is within the vibration screening distances that could cause building damage/human annoyance or sensitive equipment disturbance. If the construction activity/equipment is within the screening distance, then Step 2 (Alternative Methods/Equipment) shall be implemented.

- **Step 2 (Alternative Methods/Equipment):** When the anticipated vibration-causing construction activity/equipment is within the screening standards in Step 1 (Activity/Equipment Screening Distances), UC Berkeley shall consider whether alternative methods/equipment are available and shall verify that the alternative method/equipment is shown on the construction plans prior to the beginning of construction. Alternative methods/equipment may include, but are not limited to:
  - For pile driving, the use of caisson drilling (drill piles), vibratory pile drivers, oscillating or rotating pile installation methods, pile pressing, "silent" piling, and jetting or partial jetting of piles into place using a water injection at the tip of the pile shall be used, where feasible.
  - For paving, use of a static roller in lieu of a vibratory roller shall be implemented.
  - For grading and earthwork activities, off-road equipment that shall be limited to 100 horsepower or less.

  Where alternative methods/equipment to vibration causing activities/equipment are not feasible, then Step 3 (Construction Vibration Monitoring Program) shall be implemented.
- **Step 3 (Construction Vibration Monitoring Program):** Prior to any project-related excavation, demolition or construction activity for projects within the screening distances listed in Step 1 (Activity/Equipment Screening Distances) and where alternative methods/equipment to vibration causing activities/equipment are not feasible pursuant to Step 2 (Alternative Methods/Equipment), UC Berkeley shall prepare a construction vibration monitoring program. The program shall be prepared and implemented by a qualified acoustical consultant or structural engineer. Where the vibration sensitive receptors are historic resources, the program shall be prepared and implemented by a structural engineer with a minimum of five years of experience in the rehabilitation and restoration of historic buildings and a historic preservation architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualifications Standards. The program shall include the following:
  - Prepare an existing conditions study to establish the baseline condition of the vibration sensitive resources in the form of written descriptions with a photo survey, elevation survey, and crack-monitoring survey for the vibration-sensitive building or structure. The photo survey shall include internal and external crack monitoring in the structure, settlement, and distress, and document the condition of the foundation, walls and other structural elements in the interior and exterior of the building or structure. Surveys will be performed prior to, in regular intervals during, and after completion of all vibration-generating activity. Where receptors are historic resources, the study shall describe the physical characteristics of the resources that convey their historic significance.
  - Determine the number, type, and location of vibration sensors and establish a vibration velocity limit (as determined based on a detailed review of the proposed building), method (including locations and instrumentation) for monitoring vibrations during construction, and method for alerting responsible persons who have the authority to halt construction should limits be exceeded or damaged observed.

- Perform monitoring surveys prior to, in regular intervals during, and after completion of all vibration-generating activity and report any changes to existing conditions, including, but not limited to, expansion of existing cracks, new spalls, other exterior deterioration, or any problems with character-defining features of a historic resource are discovered. UC Berkeley shall establish the frequency of monitoring and reporting, based upon the recommendations of the qualified acoustical consultant or structural engineer or if there are historic buildings, the historic architect and structural engineer. Monitoring reports shall be submitted to UC Berkeley's designated representative responsible for construction activities.
- Develop a vibration monitoring and construction contingency plan, which shall identify where monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and require photo, elevation, and crack surveys to document conditions before and after demolition and construction activities. Construction contingencies would be identified for when vibration levels approach the limits. If vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structure.
- Report substantial adverse impacts to vibration sensitive buildings including historic resources related to construction activities that are found during construction to UC Berkeley's designated representative responsible for construction activities. UC Berkeley's designated representative shall adhere to the monitoring team's recommendations for corrective measures, including halting construction or using different methods, in situations where demolition, excavation/construction activities would imminently endanger historic resources. UC Berkeley's designated representative would respond to any claims of damage by inspecting the affected property promptly, but in no case more than five working days after the claim was filed and received by UC Berkeley's designated representative. Any new cracks or other damage to any of the identified properties will be compared to pre-construction conditions and a determination made as to whether the proposed project could have caused such damage. In the event that the project is demonstrated to have caused any damage, such damage would be repaired to the pre-existing condition. Site visit reports and documents associated with claims processing would be provided to the relevant government body with jurisdiction over the neighboring historic resource, as necessary.
- Conduct a post-survey on the structure where either monitoring has indicated high levels or complaints of damage and make appropriate repairs where damage has occurred as a result of construction activities.
- Prepare a construction vibration monitoring report that summarizes the results of all vibration monitoring and submit the report after the completion of each phase identified in the project construction schedule. The vibration monitoring report shall include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits shall be included together with proper documentation supporting any such claims. The construction vibration monitoring report shall be submitted to UC Berkeley with two weeks upon completion of each phase identified in the project construction schedule.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted in one or more

locations at the construction site.

Rationale for Finding: Implementation of Mitigation Measure NOI-2 will require UC Berkeley to implement specific actions to reduce vibration from construction activities and equipment within vibration screening distances, and to monitor construction vibration when alternative methods and equipment within screening distances are not feasible; as such, impacts from construction vibration would be reduced to less-than-significant levels.

7. Population and Housing

(a) ***Impact POP-1:*** *As a result of both direct population growth (from the construction of new UC Berkeley housing) and indirect population growth (from students and faculty/staff seeking non-UC Berkeley housing in Berkeley), the LRDP Update would accommodate a level of population growth that would exceed the current ABAG Projections for Berkeley.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.12-15 to 5.12-23), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact POP-1. Specifically, Mitigation Measure POP-1 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact POP-1 to a less-than-significant level.

Mitigation Measure POP-1: UC Berkeley shall, on an annual basis, provide a summary of LRDP enrollment and housing production data, including its LRDP enrollment projections and housing production projections, to the City of Berkeley and the Association of Bay Area Governments, for the purpose of ensuring that local and regional planning projections account for UC Berkeley-related population changes. UC Berkeley's Office of Physical & Environmental Planning shall verify compliance with this measure.

Rationale for Finding: Implementation of Mitigation Measure POP-1 will require UC Berkeley to provide regular updates to the City of Berkeley and ABAG for projection purposes, ensuring that local and regulation projections are prepared with knowledge of UC Berkeley enrollment and housing projections; as such, impacts associated with unplanned population growth would be reduced to less-than-significant levels.

(b) ***Impact POP-2:*** *Future development projects could result in the displacement of existing residents.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.12-25 to 5.12-26), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact POP-2. Specifically, Mitigation Measure POP-2 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact POP-2 to a less-than-significant level.

Mitigation Measure POP-2: Prior to issuance of any permits for construction of projects that have the potential to displace existing residents or businesses, UC Berkeley shall comply with

the UC Relocation Assistance Act Policy for Real Estate Acquisitions and Leases. UC Berkeley's Real Estate Office shall verify compliance with this measure.

Rationale for Finding: Implementation of Mitigation Measure POP-2 will ensure that UC Berkeley adheres to the UC Relocation Assistance Act Policy prior to the issuance of permits for construction projects that have the potential to displace existing residents, ensuring that UC Berkeley follows procedures to assist residents with finding replacement housing; as such, displacement impacts would be reduced to less-than-significant levels.

8. Transportation

(a) ***Impact TRAN-1:*** *Implementation of the proposed project would not be consistent with the UC Sustainable Practices Policy and the UC Berkeley Sustainability Plan.*

FINDING: As part of the proposed project, UC Berkeley will implement the following transportation CBPs:

CBP TRAN-1: UC Berkeley will implement bicycle, pedestrian, and transit access and circulation improvements as part of new building projects, major renovations, and landscape projects. Improvements will address the goal of increasing non-vehicular commuting and safety; improving access from adjacent campus or city streets and public transit; reducing multi-modal conflict; providing bicycle parking; and providing commuter amenities.

CBP TRAN-2: UC Berkeley will continue in partnership with the City of Berkeley to: (a) maintain the Southside area between College, Dana, Dwight and Bancroft in a clean and safe condition; and (b) provide needed public improvements to the area (e.g. traffic improvements, lighting, bicycle facilities, pedestrian amenities and landscaping).

CBP TRAN-3: The following housing and transportation policies will be continued:

- Except for disabled students, students living in UC Berkeley housing will only be eligible for a daytime student fee lot permit or residence hall parking based upon demonstrated need, which could include medical, employment, academic, and other criteria.
- An educational and informational program for students on commute alternatives will be included in new student orientation information.

CBP TRAN-4: UC Berkeley will continue to work with the City of Berkeley, AC Transit, and BART to coordinate transit access to new academic buildings, parking facilities, and campus housing projects, in order to accommodate changing locations or added demand.

For the reasons stated in the Final EIR (Draft EIR at page 5.15-47 to 5.15-50), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact TRAN-1. Specifically, Mitigation Measure TRAN-1 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact TRAN-1 to a less-than-significant level.

Mitigation Measure TRAN-1: UC Berkeley shall continue to survey the transportation practices of both students and employees at least once every 3 years and use the survey results to adjust the travel demand management programs, parking pricing, education and outreach, support for telecommuting, and other measures to achieve the vehicle mode share goals in the UC Sustainable Practices Policy and the UC Berkeley Sustainability Plan. To meet these goals as of 2020, UC Berkeley's single-occupant vehicle (SOV) targets are:

- 2025: Employees SOV rate of 36 percent, Student SOV rate of 5 percent
- 2050: Employee SOV rate of 36 percent, Employee and Student SOV rate of 13 percent

UC Berkeley's Office of Physical & Environmental Planning shall verify compliance with this measure and may update these targets over time to ensure ongoing compliance with the UC Sustainable Practices Policy and the UC Berkeley Sustainability Plan.

Rationale for Finding: Implementation of CBP TRAN-1 through CBP TRAN-4 and Mitigation Measure TRAN-1 will require UC Berkeley to continue transportation surveys and adjust various campus measures to reduce SOV targets (such as travel demand management, parking pricing, education, outreach, and support for telecommuting) accordingly to achieve the vehicle mode share goals in the UC Sustainable Practices Policy and UC Berkeley Sustainability Plan; as such, policy consistency impacts would be reduced to less-than-significant levels. CBP TRAN-1 through CBP TRAN-4 would facilitate bicycle use, discourage auto use, and encourage public transit use, and their ongoing implementation would not create additional transportation impacts.

9. Tribal Cultural Resources

(a) ***Impact TCR-1:*** *Ground-disturbing activities could encounter and cause a substantial adverse change to tribal cultural resources.*

FINDING: As part of the proposed project, UC Berkeley will implement the following cultural resource CBP relevant to tribal cultural resources:

CBP CUL-1: UC Berkeley will follow the procedures of conduct following the discovery of human remains that have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (California Environmental Quality Act [CEQA]). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the California Native American Heritage Commission (NAHC) within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the NAHC is unable to identify an MLD, the MLD fails to make a recommendation within 48 hours after being notified, or the landowner rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures

acceptable to the landowner, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance.

For the reasons stated in the Final EIR (Draft EIR at page 5.16-6 to 5.16-8), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact TCR-1. Specifically, Mitigation Measure TCR-1 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact TCR-1 to a less-than-significant level.

Mitigation Measure TCR-1: Implement Mitigation Measure CUL-2.

Rationale for Finding: Implementation of CBP CUL-1 and Mitigation Measure TCR-1 requires compliance with Mitigation Measure CUL-2, which identifies procedures to minimize potential impacts to previously undiscovered tribal cultural resources during ground-disturbing activities and in areas with high archaeological sensitivity; as such, impacts to tribal cultural resources would be reduced to less-than-significant levels. CBP CUL-1 would ensure that appropriate procedures are followed in order to minimize potential impacts to human remains during ground- disturbing activities of development projects to the extent practicable and would therefore not create impacts to tribal cultural resources.

C. Findings on Significant Environmental Impacts That Cannot Be Avoided or Reduced to a Less-Than-Significant Level

FINDING: Based on the issue area assessment in the EIR, the University has determined that the LRDP Update will have significant impacts in the resource areas discussed below, and that these impacts cannot be avoided or reduced despite the incorporation of all feasible mitigation measures. These findings are based on the discussion of impacts in the detailed issue area analyses and cumulative impacts in Chapter 5.2, Air Quality; Chapter 5.4, Cultural Resources; Chapter 5.11, Noise; Chapter 5.15, Transportation; and Chapter 5.18, Wildfire, of the Draft EIR. For each significant and unavoidable impact identified below, the University has made a finding(s) pursuant to Public Resources Code § 21081. An explanation of the rationale for each finding is also presented below.

1. Air Quality

(a) ***Impact AIR-1:*** *Student population growth is greater than forecast in the current LRDP, potentially conflicting with the assumptions in the 2017 Clean Air Plan.*

FINDING: As part of the proposed project, UC Berkeley will implement the following air quality CBP:

CBP AIR-1: UC Berkeley will continue to implement the same or equivalent transportation programs as currently exist, that strive to reduce the use of single-occupant and/or greenhouse gas emitting (internal combustion engine) vehicles by students, staff, faculty, and visitors to the UC Berkeley campus.

For the reasons stated in the Final EIR (Draft EIR at page 5.2-40 to 5.2-45), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact AIR-1. Specifically, Mitigation Measure AIR-1 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact AIR-1. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AIR-1 to a less-than-significant level.

Mitigation Measure AIR-1: Implement Mitigation Measure POP-1.

Rationale for Finding: The Bay Area Air Quality Management District's air quality management plan for growth in the San Francisco Bay Area Air Basin is based on ABAG's regional population projections and growth in vehicle miles traveled identified by the Metropolitan Transportation Commission. Implementation of Mitigation Measure POP-1 will require UC Berkeley to provide regular updates to the City of Berkeley and ABAG for projection purposes, ensuring that local and regulation projections are prepared with knowledge of UC Berkeley enrollment and housing projections. Early coordination with ABAG would ensure that the BAAQMD's Clean Air Plan accounts for UC Berkeley-related population changes. While Mitigation Measure AIR-1 would ensure that the local and regional projections used for the BAAQMD Clean Air Plan are prepared with knowledge of UC Berkeley enrollment and housing projections, no additional mitigation measures are available to prevent the potential conflict with the assumptions in current 2017 Clean Air Plan from the increase in student population at UC Berkeley. Therefore, no additional mitigation measures are available at the programmatic level and the impact is determined to be significant and unavoidable with mitigation.

(b) ***Impact AIR-2.1:*** *Construction activities associated with the proposed LRDP Update could generate fugitive dust and construction equipment exhaust that exceed the Bay Area Air Quality Management District average daily construction thresholds.*

FINDING: As part of the proposed project, UC Berkeley will implement the following air quality CBPs:

CBP AIR-2: UC Berkeley will continue to comply with the current Bay Area Air Quality Management District basic control measures for fugitive dust control. The requirement to comply with the basic control measures will be identified in construction bids. The Bay Area Air Quality Management District's current basic control measures include:

- Water all active construction areas at least twice daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water will be used whenever possible.
- Pave, apply water twice daily or as often as necessary to control dust, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain

at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

- Sweep daily (with water sweepers using reclaimed water if possible) or as often as needed all paved access roads, parking areas and staging areas at the construction site to control dust.
- Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the project site, or as often as needed, to keep streets free of visible soil material.
- Hydroseed or apply nontoxic soil stabilizers to inactive construction areas.
- Enclose, cover, water twice daily, or apply nontoxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit vehicle traffic speeds on unpaved roads to 15 miles per hour.
- Replant vegetation in disturbed areas as quickly as possible.

CBP AIR-3: UC Berkeley will continue to implement the following control measures to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust:

- Equipment will be properly serviced and maintained in accordance with the manufacturer's recommendations.
- Construction contractors will also ensure that all nonessential idling of construction equipment is restricted to five minutes or less, in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.

For the reasons stated in the Final EIR (Draft EIR at page 5.2-46 to 5.2-49), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact AIR-2.1. Specifically, Mitigation Measure AIR-2.1 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact AIR-2.1. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AIR-2.1 to a less-than-significant level.

Mitigation Measure AIR-2.1: UC Berkeley shall use equipment that meets the United States Environmental Protection Agency Tier 4 Final emissions standards or higher for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated to UC Berkeley that such equipment is not commercially available. For purposes of this mitigation measure, "commercially available" shall mean the availability of Tier 4 Final engines similar to the availability for other large-scale construction projects in the city occurring at the same time and taking into consideration factors such as (i) potential significant delays to critical-path timing of construction and (ii) geographic proximity to the project site of Tier 4 Final equipment. Where such equipment is not commercially available, as demonstrated by the construction contractor, Tier 4 interim equipment shall be used. Where Tier 4 interim equipment is not commercially available, as demonstrated by the contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified Diesel Emissions Control Strategy (VDECS) shall be used. The requirement to use Tier 4 Final equipment or higher for engines over 50 horsepower shall be identified in construction bids and the following shall also be completed:

- Prior to construction, the project engineer shall ensure that all demolition and grading plans clearly show the requirement for United States Environmental Protection Agency Tier 4 Final or higher emissions standards for construction equipment over 50 horsepower.
- During construction, the construction contractor shall maintain a list of all operating equipment in use over 20 hours on the construction site for verification by UC Berkeley.
- The construction equipment list shall state the makes, models, and numbers of construction equipment on-site.
- To the extent that equipment is available and cost-effective, contractors shall use electric, hybrid, or alternate-fueled off-road construction equipment.
- Contractors shall use electric construction tools, such as saws, drills, and compressors, where grid electricity is available.
- Construction activities shall be prohibited when the Air Quality Index (AQI), as measured by the closest Bay Area Air Quality Management District monitoring station (e.g., Berkeley Aquatic Center), is greater than 150 for particulates and ozone in the project area.

Contractors shall provide information on transit and ridesharing programs and services to construction employees. Additionally, meal options on-site and/or shuttles between the facility and nearby meal destinations for construction employees shall be provided.

Rationale for Finding: Mitigation Measure AIR-2.1 will reduce nitrogen oxide (NO_X) emissions by requiring use of Tier 4 Final or higher construction equipment where commercially available and would reduce nonessential idling for future development associated with the proposed LRDP Update. However, projects could still generate construction exhaust emissions in excess of the BAAQMD significance thresholds, depending on the number of large off-road construction equipment or number of simultaneous construction projects under construction at any one time throughout the lifetime of the proposed LRDP Update. Due to the programmatic nature of the proposed LRDP Update and the unknown timing and characteristics of future construction projects, no additional mitigation measures are available, and the impact is determined to be significant and unavoidable with mitigation.

(c) ***Impact AIR-2.2:*** *Buildout of the proposed LRDP Update would result in a substantial increase in ROG emissions from use of consumer products and repainting buildings at UC Berkeley that would contribute to the ozone nonattainment designations of the San Francisco Bay Area Air Basin (project and cumulative).*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.2-49 to 5.2-53), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact AIR-2.2. Specifically, Mitigation Measure AIR-2.2 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact AIR-2.2. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AIR-2.2 to a less-than-significant level.

Mitigation Measure AIR-2.2: To reduce Reactive Organic Gas emissions, for interior architectural coatings, UC Berkeley shall utilize certified (e.g., Greenguard or Green Seal) low-

Volatile Organic Compound (VOC) paints or, when feasible, no-VOC paints (i.e., less than 5 grams per liter of VOC). UC Berkeley shall verify that the requirement to use low-VOC (and/or no-VOC) paints is identified in construction bids and on architectural plans.

Rationale for Finding: CBP AIR-2 and CBP AIR-3 will continue to implement a series of actions that UC Berkeley must take to reduce fugitive dust and fugitive emissions associated with future development consistent with existing federal, State, regional, and UC regulations. Mitigation Measure AIR-2.2 will require use of low- or no-VOC paints at UC Berkeley and could reduce ROG emissions on campus by 44 pounds per day (lbs/day). Combined with the reductions anticipated with implementation of the Hybrid Heat Nodal Recovery option identified in the Campus Energy Plan, emissions would be reduced by 70 lbs/day of reactive organic gases (ROGs). However, ROG emissions from consumer product use at the UC Berkeley campus would continue to exceed the BAAQMD regional significance thresholds and cumulatively contribute to the ozone nonattainment designations. Because UC Berkeley does not have full control over the use of consumer products and the VOC content contained within consumer products, there are no additional mitigation measures available to reduce this program-level impact to a less-than-significant level. Therefore, the impact is determined to be significant and unavoidable with mitigation.

(d) ***Impact AIR-3:*** *Construction activities associated with potential future development projects accommodated under the proposed LRDP Update could expose nearby receptors to substantial concentrations of toxic air contaminants.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.2-60 to 5.2-61), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact AIR-3. Specifically, Mitigation Measure AIR-3 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact AIR-3. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AIR-3 to a less-than-significant level.

Mitigation Measure AIR-3.1: Construction projects subject to CEQA on sites one acre or greater, within 1,000 feet of residential and other sensitive land use projects (e.g., hospitals, schools, nursing homes, day care centers), as measured from the property line of the project to the property line of the source/edge of the sensitive land use, that utilize off-road equipment of 50 horsepower or more and, that occur for more than 12 months of active construction (i.e., exclusive of interior renovations), shall require preparation of a construction health risk assessment (HRA) prior to future discretionary project approval, as recommended in the current HRA Guidance Manuel prepared by the California Office of Environmental Health Hazard Assessment (OEHHA). Additionally, UC Berkeley shall consider whether unusual circumstances warrant evaluation of construction health risk for projects with construction durations of less than 12 months or on development sites smaller than one acre. For example, unusual circumstances would include sites that require extensive site preparation with more than 10,000 cubic yards of excavation. The construction HRA shall generally be prepared in accordance with policies and procedures of the OEHHA and the Bay Area Air Quality Management District. The latest

OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children ages 0 to 16 years. If the construction HRA shows that the incremental cancer risk exceeds 10 in a million (10E-06), PM2.5 concentrations exceed 0.3 µg/m3, or the appropriate noncancer hazard index exceeds 1.0, the construction HRA shall be required to identify all feasible measures capable of reducing potential cancer and noncancer risks to an acceptable level to the extent feasible (i.e., below 10 in a million, a hazard index of 1.0, or 0.3 µg/m3), including appropriate enforcement mechanisms. Examples of feasible measures include use of U.S. Environmental Protection Agency rated Tier 4 construction equipment, use of diesel particulate filters, and electric equipment.

The construction health risk assessment shall be submitted to UC Berkeley's Office of Environment, Health & Safety for review and approval. Measures identified in the health risk assessment shall be included in bid documents, purchase orders, contracts, and grading plans prepared for the development projects. Compliance with these measures shall be verified during regular construction site inspections.

Rationale for Finding: Mitigation Measure AIR-3 requires site-specific construction HRAs to reduce to the extent feasible construction-related health risk impacts of future development projects that implement the proposed LRDP Update. The health risk associated with construction activities is driven by diesel particulate matter, and is largely a factor of how close construction activities are to sensitive receptors, how many large off-road diesel construction equipment are needed, and the duration of construction activities. These future, project-specific circumstances are not known for the programmatic evaluation of the LRDP Update. Therefore, construction-related health risk impacts may still exceed applicable thresholds. Accordingly, no additional mitigation measures are available to reduce this program-level impact to a less-than-significant level and this impact is determined to be significant and unavoidable with mitigation.

2. Cultural Resources

(a) ***Impact CUL-1.1:*** *Future development under the proposed LRDP Update has the potential to permanently impact historic resources by demolishing or renovating historic buildings in a manner that is not in conformance with the Secretary of the Interior's Standards for Rehabilitation.*

FINDING: As part of the proposed project, UC Berkeley will implement the following aesthetics CBP relevant to cultural resources:

CBP AES-4: UC Berkeley will make informational presentations of major projects in the city environs of the Cities of Berkeley and Oakland, and the Clark Kerr Campus, to the relevant city commission(s) and board(s). Relevant commissions and boards, to be determined jointly by the Campus Architect and appropriate City Planning Director, may include the Berkeley Zoning Adjustments Board and Berkeley Landmarks Preservation Commission. Major projects in the Hill Campus East within the city of Oakland may also be presented to relevant City of Oakland boards or commissions, after consultation and mutual agreement between those agencies and UC Berkeley. Major projects may include new construction or redevelopment projects with substantial community interest as determined by UC Berkeley. Whenever a major project in the

city environs or Clark Kerr Campus is under consideration, the Campus Architect may invite the appropriate city planning director or their designee to attend and comment on the project at the UC Berkeley Design Review Committee.

For the reasons stated in the Final EIR (Draft EIR at page 5.4-31 to 5.4-37), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact CUL-1.1. Specifically, Mitigation Measures CUL-1.1a through CUL-1.1e are feasible, and are hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact CUL-1.1. However, even with implementation of these mitigation measures, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact CUL-1.1 to a less-than-significant level.

Mitigation Measure CUL-1.1a: If a project could cause a substantial adverse change in features that convey the significance of a historical resource that is designated or has been found eligible or potentially eligible for designation, or has not been evaluated but is more than 45 years of age, UC Berkeley shall engage the services of a professional meeting the Secretary of the Interior's Professional Qualification Standards in Architectural History to complete a historic resource assessment, overseen by the UC Berkeley Office of Physical & Environmental Planning. The assessment shall provide background information on the history and development of the resource and, in particular, shall evaluate whether the resource appears to be eligible for National Register, California Register, or local landmark listing. The assessment shall also evaluate whether the proposed treatment of the historical resource is in conformance with the Secretary of the Interior's Standards for Rehabilitation (the Standards). If the proposed project is found to not be in conformance with the Standards, this assessment shall include recommendations for how to modify the project design so as to bring it into conformance. The Campus Architect shall verify compliance with this measure prior to the initiation of any site or building demolition or construction activities.

Mitigation Measure CUL-1.1b: For projects that would cause a substantial adverse change in features that convey the significance of a historical resource that is designated or has been found eligible for designation, UC Berkeley shall have Historic American Building Survey Level II documentation completed for the historical resource and its setting. UC Berkeley shall submit digital copies of the documentation to an appropriate historical repository, including UC Berkeley's Bancroft Library, UC Berkeley Environmental Design Archives, or the California Historical Resources Information System Northwest Information Center. This documentation shall include a historical narrative, photographs, and/or drawings:

- **Historical Overview:** A professional meeting the Secretary of the Interior's Professional Qualification Standards in Architectural History or History shall assemble historical background information relevant to the historical resource.
- **Photographs:** Photo-documentation of the historical resource will be prepared to Historic American Building Survey standards for archival photography, prior to demolition. Historic American Building Survey standards require large-format black-and-white photography, with the original negatives having a minimum size of four inches by five inches. Digital photography, roll film, film packs, and electronic manipulation of images are not acceptable. All film prints, a minimum of four inches by five inches, must be hand-processed according

to the manufacturer's specifications and printed on fiber-base, single-weight paper and dried to a full gloss finish. A minimum of 12 photographs shall be taken, detailing the site, building exterior, building interior, and character-defining features. Photographs must be identified and labeled using Historic American Building Survey standards.

- **Drawings:** Existing historic drawings of the historical resource, if available, will be digitally scanned or photographed with large-format negatives. In the absence of existing drawings, full-measured drawings of the building's plan and exterior elevations shall be prepared prior to demolition.

The Campus Architect shall verify compliance with this mitigation measure prior to the initiation of any site or building demolition or construction activities.

Mitigation Measure CUL-1.1c: Based on Mitigation Measure CUL-1.1b, if any project could result in alteration of features of a historical resource that are character-defining or convey the significance of a resource, UC Berkeley shall give local historical societies or local architectural salvage companies the opportunity to salvage character-defining or significant features from the historical resource for public information or reuse in other locations. UC Berkeley shall contact local historical societies and architectural salvage companies and notify them of the available resources and make them available for removal. If, after 30 days, no organization is able and willing to salvage the significant materials, demolition can proceed. The Campus Architect shall verify compliance with this measure prior to the initiation of any demolition activities that could affect the resources.

Mitigation Measure CUL-1.1d: For projects that would result in demolition of historic resources, prior to demolition the Campus Architect shall determine which resources merit on-site interpretation, with consideration of available historic resource assessments and other relevant materials. For historic resources that will be demolished that the Campus Architect has determined to be culturally significant, UC Berkeley shall incorporate an exhibit or display of the resource and a description of its historical significance into a publicly accessible portion of any subsequent development on the site. The display shall be developed with the assistance of the Campus Architect and one or more professionals experienced in creating such historical exhibits or displays.

Mitigation Measure CUL-1.1e: Implement Mitigation Measure NOI-2.

Rationale for Finding: Implementation of CBP AES-4 and Mitigation Measures CUL-1.1a through CUL-1.1e would reduce potential impacts to historic resources. CBP AES-4 would encourage collaboration with local agencies and would serve to reduce potential impacts to historic resources. Implementation of Mitigation Measure NOI-2 will require UC Berkeley to implement specific actions to reduce vibration from construction activities and equipment within vibration screening distances, and to monitor construction vibration when alternative methods and equipment within screening distances are not feasible. Due to the programmatic nature of the proposed LRDP Update, future projects could still result in the demolition of one or more historical resources and/or remodeling of one or more historical resources in a manner not in conformance with the Secretary of the Interior's Standards for Rehabilitation. Therefore, due to the programmatic nature of the proposed LRDP Update, no additional mitigation measures are available, and the impact is

determined to be significant and unavoidable with mitigation.

(b) ***Impact CUL-4:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in significant cumulative impacts with respect to cultural resources.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.4-47 to 5.4-49), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact CUL-4. Specifically, Mitigation Measure CUL-4 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact CUL-4. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact CUL-4 to a less-than-significant level.

Mitigation Measure CUL-4: Implement Mitigation Measures CUL-1.1a through CUL-1.1e; CUL-1.2a and CUL-1.2b; CUL-1.3a and CUL-1.3b; CUL-1.4; and CUL-2.

Rationale for Finding: Implementation of Mitigation Measures CUL-1.1a through CUL-1.1e would reduce potential impacts to historic resources. Implementation of Mitigation Measure NOI-2, required by Mitigation Measure CUL-1.1e, will require UC Berkeley to implement specific actions to reduce vibration from construction activities and equipment within vibration screening distances, and to monitor construction vibration when alternative methods and equipment within screening distances are not feasible. Mitigation Measure CUL-2 will require appropriate procedures to minimize potential impacts to previously undiscovered archaeological resources or tribal cultural resources during ground-disturbing activities and in areas with high archaeological sensitivity. Mitigation Measures CUL-1.2a, CUL-1.2b, CUL-1.3a, CUL-1.3b, and CUL-1.4 are project-level mitigation measures that apply to Housing Projects #1 and #2. Mitigation Measures CUL-1.1a through CUL-1.1e will reduce impacts to cultural resources under the LRDP Update. However, due to the programmatic nature of the proposed LRDP Update, future projects could still result in the demolition of one or more historical resources and/or remodeling of one or more historical resources in a manner not in conformance with the Secretary of the Interior's Standards for Rehabilitation. Therefore, due to the programmatic nature of the proposed LRDP Update, no additional mitigation measures are available, and the impact is determined to be significant and unavoidable with mitigation.

3. Noise

(a) ***Impact NOI-1:*** *Noise from construction equipment could expose sensitive receptors to noise that exceeds the thresholds of significance.*

FINDING: As part of the proposed project, UC Berkeley will implement the following noise CBPs:

CBP NOI-1: Mechanical equipment selection and building design shielding will be used, as appropriate, so that noise levels from future building operations would not exceed the City of Berkeley Noise Ordinance limits for commercial areas or residential zones as measured on any commercial or residential property in the area surrounding a project proposed to implement the

LRDP. Controls typically incorporated to attain this outcome include selection of quiet equipment, sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures.

CBP NOI-2: UC Berkeley will require the following measures for all construction projects:

- Construction activities will be limited to a schedule that minimizes disruption to uses surrounding the project site as much as possible. Construction outside the Campus Park will be scheduled within the allowable construction hours designated in the noise ordinance of the local jurisdiction to the full feasible extent, and exceptions will be avoided except where necessary. As feasible, construction equipment will be required to be muffled or controlled.
- The intensity of potential noise sources will be reduced where feasible by selection of quieter equipment (e.g., gas or electric equipment instead of diesel powered, low noise air compressors).
- Functions such as concrete mixing and equipment repair will be performed off-site whenever possible.
- Stationary equipment such as generators and air compressors will be located as far as feasible from nearby noise-sensitive uses.
- At least 10 days prior to the start of construction activities, a sign will be posted at the entrance(s) to the job site, clearly visible to the public, that includes contact information for UC Berkeley's authorized representative in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, they will investigate, take appropriate corrective action, and report the action to UC Berkeley.
- During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only. The construction manager will use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.

For projects requiring pile driving:

- With approval of the project structural engineer, pile holes will be pre-drilled to minimize the number of impacts necessary to seat the pile.
- Pile driving will be scheduled to have the least impact on nearby sensitive receptors.
- Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler.
- Alternatives to impact hammers, such as oscillating or rotating pile installation systems, will be used where feasible.

CBP NOI-3: UC Berkeley will precede all new construction projects that are outside of the Campus Park, the Clark Kerr Campus, or adjacent to a non-UC Berkeley property with community notification, with the purpose of ensuring that the mutual needs of the particular construction project and of those impacted by construction noise are met, to the extent feasible.

For the reasons stated in the Final EIR (Draft EIR at page 5.11-29 to 5.11-33), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact NOI-1. Specifically, Mitigation Measure NOI-1 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact NOI-1. However, even with implementation of CBP NOI-1 through CBP NOI-3 and this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact NOI-1 to a less-than-significant level.

> **Mitigation Measure NOI-1:** For construction projects that last longer than 30 days, and where construction noise could exceed the applicable noise thresholds of significance (see City of Berkeley Municipal Code Section 13.40.070, Prohibited Acts, and City of Oakland Municipal Code Section 17.120.050(A), Noise (Residential Zone Noise Level Standards)) for maximum construction noise levels (dBA Lmax), or that involve impulse equipment such as jackhammers, hoe rams, and pile driving, temporary noise barriers at least 12 feet high will be erected, as necessary and feasible, to reduce construction noise levels. Temporary noise barriers will be constructed with solid material with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the temporary noise barrier and may be lined on the construction side with an acoustical blanket, curtain, or equivalent absorptive material. UC Berkeley shall verify compliance with this measure prior to issuance of demolition, grading, and/or building permits.

Rationale for Finding: Mitigation Measure NOI-1 requires the use of temporary noise barriers, which will achieve up to 20 dBA of noise reduction. However, the greatest reduction would be at ground-floor receptors, and noise barriers may not be as effective for buildings with multiple stories. Construction activities associated with potential future projects may occur near noise-sensitive receptors. In addition, depending on the project type, equipment list, time of day, phasing, and overall construction duration, noise disturbances may occur for prolonged periods of time, during the more sensitive nighttime hours, or may exceed UC Berkeley's adopted construction noise standards even with project-level mitigation. Therefore, due to the programmatic nature of the evaluation of the LRDP Update, construction noise impacts associated with implementation of the proposed LRDP Update are determined to be significant and unavoidable with mitigation.

(b) ***Impact NOI-3:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to construction noise.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.11-55), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact NOI-3. Specifically, Mitigation Measure NOI-3 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact NOI-3. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact NOI-3 to a less-than-significant level.

Mitigation Measure NOI-3: Implement Mitigation Measure NOI-1.

Rationale for Finding: Mitigation Measure NOI-1 requires the use of temporary noise barriers, which will achieve up to 20 dBA of noise reduction. However, due to the programmatic nature of the evaluation of the LRDP Update, construction noise impacts associated with implementation of the proposed LRDP Update cannot be reduced to a less-than-significant level. Depending on the project type, equipment list, time of day, phasing, and overall construction duration associated with cumulative projects, noise disturbances may occur for prolonged periods of time, during the more sensitive nighttime hours, or may exceed UC Berkeley's adopted construction noise standards even with project-level mitigation. Therefore, cumulative construction noise impacts associated with implementation of the proposed LRDP Update are determined to be significant and unavoidable with mitigation.

4. Transportation

(a) ***Impact TRAN-3:*** *New buildings and structures that are 100 feet or more in height, based on final exterior design, could create wind hazards at the pedestrian (ground) level.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.15-58 to 5.15-59), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact TRAN-3. Specifically, Mitigation Measure TRAN-3 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact TRAN-3. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact TRAN-3 to a less-than-significant level.

Mitigation Measure TRAN-3: Prior to final exterior design approval of new buildings or structures that are 100 feet or more in height, the building or structure shall be analyzed for potential wind hazards at the pedestrian level in the public right-of-way around the project site. The wind hazards analysis shall be conducted by a qualified wind engineer using the final exterior plans. The analysis shall apply the industry-acceptable Lawson Criteria for pedestrian-level wind distress (safety) to identify locations where wind speeds may be hazardous to pedestrians in the public right-of-way around the project site. Where wind hazards are identified based on the final building or structure exterior designs, UC Berkeley, in consultation with the qualified wind engineer, shall identify feasible building or structure design refinements to reduce the hazardous wind effects to an acceptable level as determined by the qualified wind engineer using the Lawson Criteria. Feasible industry-standard wind reduction design refinements may include, but are not limited to, adjusted building setbacks, upper-floor building stepbacks, terraces, rounded or redesigned building corners, screens, canopies, or landscaping. Following the identification of feasible design refinements by UC Berkeley in consultation with the qualified wind engineer, the qualified wind engineer shall provide evidence of acceptable (i.e., nonhazardous) wind effects with the incorporation of the feasible building or structure exterior design refinements. The results of the wind analysis and the feasible and effective design refinements to reduce wind

hazards shall be submitted to the UC Berkeley project manager for review prior to final design approval.

Rationale for Finding: Mitigation Measure TRAN-3 will require new buildings or structures that are 100 feet or more in height to be analyzed for potential wind hazards prior to final exterior design approval. The final exterior design details regarding future buildings and structures are not known at this time. In addition, it is unknown if any exterior building refinements would be recommended for future projects and, if so, if they would be feasible and sufficiently effective in reducing a wind hazard to pedestrian areas. Therefore, the ability to reduce wind hazard impacts to pedestrians to a less-than-significant level is unknown. Due to the programmatic nature of the proposed LRDP Update, no additional mitigation measures are available, and the impact is considered significant and unavoidable with mitigation.

(b) ***Impact TRAN-5:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, could result in a significant cumulative impact with respect to wind hazards at the pedestrian (ground) level.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.15-63 to 5.15-66), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact TRAN-5. Specifically, Mitigation Measure TRAN-5 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact TRAN-5. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact TRAN-5 to a less-than-significant level.

Mitigation Measure TRAN-5: Implement Mitigation Measure TRAN-3.

Rationale for Finding: Mitigation Measure TRAN-3 requires new buildings or structures that are 100 feet or more in height to be analyzed for potential wind hazards prior to final exterior design approval. The final exterior design details regarding future buildings and structures that implement the LRDP Update and cumulative projects are not known at this time. In addition, it is unknown if any exterior building refinements would be recommended for future UC Berkeley and cumulative projects and, if so, if they would be feasible and sufficiently effective in reducing a wind hazard to pedestrian areas. Therefore, the ability to reduce cumulative wind hazard impacts to pedestrians to a less-than-significant level is unknown, and the impact is considered significant and unavoidable with mitigation.

5. Wildfire

(a) ***Impact WF-2:*** *Development under the proposed LRDP Update could include an increase in academic life space, utility infrastructure upgrades, and energy resilience projects within the Hill Campus East, which is in a Very High FHSZ and has steep terrain and heavy vegetation. Development within this area could exacerbate wildfire risks*

FINDING: As part of the proposed project, UC Berkeley will implement the following wildfire

CBPs:

CBP WF-1: UC Berkeley will continue to comply with the California Public Resources Code Section 4291, which mandates firebreaks of 100 feet around buildings or structures in, upon, or adjoining any mountainous, forested, or brush- or grass-covered lands.

CBP WF-2: UC Berkeley will conduct vegetation management under its approved Wildland Vegetative Fuel Management Plan.

CBP WF-3: UC Berkeley will continue to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that its projects incorporate fire prevention measures.

CBP WF-4: UC Berkeley will continue to plan and collaborate with other agencies through participation in the Hills Emergency Forum.

For the reasons stated in the Final EIR (Draft EIR at page 5.8-21 to 5.18-23), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact WF-2. Specifically, Mitigation Measures WF-2a and WF-2b are feasible, and are hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact WF-2. However, even with implementation of these mitigation measures, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact WF-2 to a less-than-significant level.

Mitigation Measure WF-2a: Project sponsors for new UC Berkeley development within a Very High Fire Hazard Severity Zone shall prepare and implement a Wildfire Management Plan to prevent wildfires from construction and operation of new development. A Wildfire Management Plan shall include, but not be limited to, the following:

- The objectives of the plan.
- Responsibilities of persons responsible for executing the plan.
- Location of applicable infrastructure covered under the plan.
- Plans for vegetation management, and incorporation of vegetation management strategies from the UC Berkeley's Wildland Vegetative Fuel Management Plan.
- Plans for emergency access and evacuation that ensure adequate access to and throughout the site for emergency responders, and adequate egress from the site for evacuation events.
- A list that identifies, describes, and prioritizes all wildfire risks associated with the infrastructure.
- Plans for post-fire hazard mitigation, including for protection of areas downslope from debris slides.
- Plans for regular inspections of electrical infrastructure.

The Wildfire Management Plan shall be submitted to the UC Berkeley project manager and the Campus Fire Marshal for review and approval prior to initiation of construction activities.

Mitigation Measure WF-2b: Vegetation and wildland management activities shall comply with Public Resources Code Section 4442, which requires that engines that use hydrocarbon fuels be equipped with a spark arrester, and that these engines be maintained in effective working order to help prevent fire. These activities shall also comply with the Environmental Protection Measures in the UC Berkeley Wildland Vegetative Fuel Management Plan. UC Berkeley shall verify compliance with this measure for ongoing UC Berkeley vegetation management activities and for future development projects.

Rationale for Finding: CBP WF-1 through WF-4 and Mitigation Measures WF-2a and WF-2b require measures to reduce potential wildfire hazards associated with vegetation and wildland management activities and projects within a Very High Fire Hazard Severity Zone. Implementation of CBP WF-1 through CBP WF-4 would ensure that future projects within the Hill Campus East are evaluated and designed to incorporate best practices to reduce wildfire-related hazards. However, due to potential unknown impacts from future development within the Hill Campus East under the proposed LRDP Update, impacts at the programmatic level are determined to be significant and unavoidable with mitigation.

(b) ***Impact WF-3:*** *The proposed LRDP Update could involve the installation or maintenance of infrastructure such as roads, fuel breaks, emergency water sources, power lines, or other utilities associated with potential development within the Very High FHSZ, including with the potential addition of a solar array installation in the Hill Campus East. Construction and operation of these improvements could exacerbate fire risk through construction and maintenance activities and/or through the introduction of additional electrical infrastructure.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.18-24 to 5.18-26), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact WF-3. Specifically, Mitigation Measure WF-3 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact WF-3. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact WF-3 to a less-than-significant level.

Mitigation Measure WF-3: Electrical lines associated with future electrical infrastructure shall be undergrounded, where feasible. UC Berkeley shall verify compliance with this measure as part of plan review prior to construction.

Rationale for Finding: Mitigation Measure WF-3 will ensure that associated infrastructure from potential future development projects, including the installation and maintenance of a potential solar array and/or associated power lines, will be assessed for wildfire impacts and any potential impacts are mitigated. However, due to potential unknown impacts from future development within the Very High Fire Hazard Severity Zone under the LRDP Update, programmatic impacts of the proposed LRDP Update are determined to be significant and unavoidable with mitigation.

(c) ***Impact WF-4:*** *The proposed LRDP Update could involve development within the Hill Campus East, which is in a Very High FHSZ, contains steep terrain, and is largely undeveloped, and which abuts existing residential areas. Therefore, potential development could expose people or structures to downslope landslides as a result of postfire slope instability.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.18-27 to 5.18-28), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact WF-4. Specifically, Mitigation Measure WF-4 is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact WF-4. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact WF-4 to a less-than-significant level.

Mitigation Measure WF-4: Implement Mitigation Measure WF-2a.

Rationale for Finding: Mitigation Measure WF-2a requires measures to reduce potential wildfire hazards associated with projects within a Very High Fire Hazard Severity Zone. However, due to potential unknown impacts from future development within the Hill Campus East under the proposed LRDP Update, impacts at the programmatic level are determined to be significant and unavoidable with mitigation.

(d) ***Impact WF-5:*** *Potential development under the proposed LRDP Update could, in combination with other surrounding and future projects in the SRA or Very High FHSZ, result in cumulative impacts associated with the exposure of project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors; the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or exposure of people or structures to significant risks including downslope landslides as a result of postfire slope instability.*

FINDING: For the reasons stated in the Final EIR (Draft EIR at page 5.18-29 to 5.18-30), the University finds that changes or alterations have been incorporated into the LRDP Update which mitigate significant effects on the environment from Impact WF-5. Specifically, Mitigation Measure WF-5 (which implements Mitigation Measures WF-2a, WF-2b, WF-3, and WF-4) is feasible, and is hereby adopted and incorporated into the LRDP Update to mitigate significant effects from Impact WF-5. However, even with implementation of this mitigation measure, significant unavoidable impacts will occur as described above. Therefore, the University finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact WF-5 to a less-than-significant level.

Mitigation Measure WF-5: Implement Mitigation Measures WF-2a, WF-2b, WF-3, and WF-4. No additional feasible mitigation measures are available to reduce this cumulative impact to a less-than-significant level.

Rationale for Finding: Mitigation Measures WF-2a and WF-2b require measures to reduce potential wildfire hazards associated with vegetation and wildland management activities and projects within a Very High Fire Hazard Severity Zone, and Mitigation Measure WF-3 ensures that associated infrastructure from potential future development projects will be assessed for wildfire impacts and any potential impacts are mitigated. Mitigation Measure WF-4 implements Mitigation Measure WF-2a. However, due to potential unknown impacts from future development within the Hill Campus East under the proposed LRDP Update, future projects could contribute to cumulatively considerable impacts. Therefore, impacts at the programmatic level are determined to be significant and unavoidable with mitigation.

D. Findings on Project Alternatives

1. Alternatives Screened Out from Detailed Consideration in the EIR

The University finds that all of the alternatives to the LRDP Update eliminated from further consideration in the Draft EIR are infeasible, would not meet most project objectives and/or would not reduce or avoid any of the significant effects of the proposed project, for the reasons detailed in Section 6.2.3 of the Draft EIR. These alternatives include: (1) Reduced Graduate Program and Research Alternative, which considers a reduction or cap in student enrollment and was screened from further consideration as annual undergraduate enrollment targets for each university in the UC system are established to ensure UC is meeting commitments to the State, as required in the State of California Education Code and identified in the California Master Plan for Higher Education; graduate students are vital elements of UC Berkeley's research endeavors and teaching resources; reducing or eliminating UC Berkeley's graduate and professional schools or academic research and policy institutes would conflict with the proposed LRDP Update's project objective of maintaining, supporting, and enhancing UC Berkeley's status as an internationally renowned public research-intensive institution and center for scientific and academic advancement; and this alternative would therefore not meet a core project objective; (2) Historic Resources Avoidance Alternative, which was screened from further consideration because it would be infeasible to accommodate the LRDP Update development program without potentially affecting historic resources either directly through renovation or redevelopment of historic resource properties, or through development on vacant sites where the potential to affect an historic district exists; and (3) Increased Transportation Demand Management Measures Alternative, which UC Berkeley determined would involve additional costs that would be high relative to the additional benefit gained when compared to the ongoing costs and benefits of implementing the current TDM program and therefore considered to be infeasible because of economic factors.

2. Alternatives Analyzed in the EIR

In compliance with CEQA and the CEQA Guidelines, the EIR evaluated a reasonable range of alternatives to the LRDP Update. The EIR's analysis examined the potential feasibility of each alternative, its environmental effects, and its ability to meet the project objectives. The alternatives analysis included analysis of a no-project alternative and identified the environmentally superior alternative. Chapter 6 of the Draft EIR evaluated four alternatives to the Project: Alternative A: No Project; Alternative B: Reduced Development Program; Alternative C: Reduced Vehicle Miles Traveled; and Alternative D: Increased Faculty and Staff Housing.

Brief summaries of these alternatives and findings are provided below.

(a) *Alternative A: No Project*

Alternative A: No Project assumes continued implementation of the current LRDP, and continued adherence to UC Sustainable Practices Policy, Carbon Neutrality Initiative, and Seismic Safety Policy. Planned growth as expressed in the current LRDP would continue up to its planned capacity, which could result in increases in residential beds (1,530) and academic life and campus life space (up to an additional 2,476,929 square feet). There would be no changes to the number of parking spaces.

FINDING: Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), the University finds that the specific economic, legal, social, technological, or other considerations, including failure to meet project objectives, render Alternative A: No Project infeasible. While this alternative would avoid or lessen significant impacts from the LRDP Update, including effects related to the obstruction of views, visual resource impacts, construction-related and consumer product air emissions, biological resources, historic resources, fire protection services, tribal cultural resources, demands for utilities and service systems, and development within the State Responsibility Area and Very High Fire Hazard Severity Zone, it would not accomplish most of the basic project objectives for the LRDP Update. In addition, Alternative A: No Project would increase impacts from the LRDP Update in the environmental topic areas of energy, GHG emissions, noise, population and housing, and parks and recreation. The University therefore rejects this alternative as unrealistic and infeasible for the reasons listed above and as stated in the EIR. (Draft EIR at Section 6.3.3).

(b) *Alternative B: Reduced Development Program*

Alternative B: Reduced Development Program would implement an LRDP with a 25 percent reduction in undergraduate beds and academic square footage from that analyzed under the proposed LRDP Update. Under this alternative, housing for approximately 6,756 undergraduate students and 1,713,441 square feet of new academic space would be provided. In total, Alternative B would provide 9,479 net new beds (6,756 undergraduate + 2,065 graduate + 549 faculty staff + 109 non-university).

FINDING: Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), the University finds that the specific economic, legal, social, technological, or other considerations, including failure to meet project objectives, render Alternative B: Reduced Development Program infeasible. While this alternative would avoid or lessen significant impacts from the LRDP Update, including effects related to obstruction of views, construction-related and consumer product air emissions, biological resources, cultural and historic resources, fire protection services, tribal cultural resources, and demands for utilities and service systems, it would only partially accomplish some of the basic project objectives for the LRDP Update and would result in less housing overall. In addition, Alternative B: Reduced Development Program would increase impacts from the LRDP Update in the environmental topic areas of energy, GHG emissions, noise, population and housing, and transportation. The University therefore rejects this alternative as unrealistic and infeasible for

the reasons listed above and as stated in the EIR. (Draft EIR at Section 6.4.3).

(c) *Alternative C: Reduced Vehicle Miles Traveled*

Alternative C: Reduced Vehicle Miles Traveled assumes additional project features to reduce vehicle miles traveled (VMT) and corresponding GHG emissions, including more remote learning and working opportunities, reduced parking on campus (no net new parking spaces through the LRDP Update horizon year 2036-37), and increased faculty and staff beds. This alternative would include 500 additional beds, for a total of 12,231 beds for students, faculty, and staff.

FINDING: Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), the University finds that the specific economic, legal, social, technological, or other considerations render Alternative C: Reduced Vehicle Miles Traveled infeasible. While this alternative would avoid or lessen significant impacts from the LRDP Update, including effects related to energy efficiency, GHG emissions, noise from mobile sources, demand for non-UC Berkeley housing, and VMT, it would increase impacts from the LRDP Update in the environmental topic areas of aesthetics, air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, public services, tribal cultural resources, utilities and service systems, and wildfire. Further, the housing program of the LRDP Update responds to the goal of the Chancellor's Housing Initiative to provide student and faculty/staff housing for the current UC Berkeley population, plus additional housing associated with LRDP population projections. The Chancellor's Housing Initiative reflects goals to provide two years of housing for entering freshmen; one year for entering transfer students; one year for entering graduate students; and up to three years to new, untenured faculty. As such, UC Berkeley determined that the maximum amount of housing that would be reasonable to strive to achieve the Chancellor's Housing Initiative is what is presented in the LRDP Update. More intense housing on the sites identified for potential new growth would be potentially unattainable in the 2036-37 buildout horizon. This does not mean that UC Berkeley would not consider more housing if such an opportunity were presented between project approval and the 2036-37 buildout horizon evaluated in the Draft EIR. As stated in the EIR, if the amount of development evaluated for the proposed project were to exceed the buildout projections, UC Berkeley would be required to amend the LRDP and conduct additional environmental review as necessary. The University therefore rejects this alternative as unrealistic and infeasible for the reasons listed above and as stated in the EIR. (Draft EIR at Section 6.5.3).

(d) *Alternative D: Increased Faculty and Staff Housing*

Alternative D: Increased Faculty and Staff Housing assumes an additional 1,000 beds for faculty and staff housing in the Hill Campus East and the Clark Kerr Campus areas. The proposed LRDP Update buildout projections would remain the same in this alternative, with the exception of the additional beds. Therefore, this alternative would provide 1,549 net new faculty/staff beds for a total of 12,731 net new beds.

FINDING: Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), the University finds that the specific economic, legal, social, technological, or other considerations render Alternative D: Increased Faculty and Staff Housing infeasible. While this alternative would avoid or lessen significant impacts from the LRDP Update, including effects related to GHG

emissions, noise from mobile sources, demand for non-UC Berkeley population and housing, VMT, it would increase development in Hill Campus East and increase impacts from the LRDP Update in the environmental topic areas of aesthetics, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, public services, tribal cultural resources, utilities and service systems, and wildfire. Further, the housing program of the LRDP Update responds to the goal of the Chancellor's Housing Initiative to provide student and faculty/staff housing for the current UC Berkeley population, plus additional housing associated with LRDP population projections. The Chancellor's Housing Initiative reflects goals to provide two years of housing for entering freshmen; one year for entering transfer students; one year for entering graduate students; and up to three years to new, untenured faculty. As such, UC Berkeley determined that the maximum amount of housing that would be reasonable to strive to achieve the Chancellor's Housing Initiative is what is presented in the LRDP Update. More intense housing on the sites identified for potential new growth would be potentially unattainable in the 2036-37 buildout horizon. This does not mean that UC Berkeley would not consider more housing if such an opportunity were presented between project approval and the 2036-37 buildout horizon evaluated in the Draft EIR. As stated in the EIR, if the amount of development evaluated for the proposed project were to exceed the buildout projections, UC Berkeley would be required to amend the LRDP and conduct additional environmental review as necessary. The University therefore rejects this alternative as unrealistic and infeasible for the reasons listed above and as stated in the EIR. (Draft EIR at Section 6.6.3).

3. Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines requires the identification of an environmentally superior alternative to the proposed project. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

FINDING: The Draft EIR identified Alternative A: No Project as the environmentally superior alternative. Out of the remaining alternatives that are not the no project alternative, the Draft EIR identified Alternative C: Reduced Vehicle Miles Traveled as the environmentally superior alternative. Alternative C: Reduced Vehicle Miles Traveled would result in the same development program for the LRDP Update as the proposed project, with the addition of increased remote learning and working opportunities; reduced parking with zero net new parking spaces; and additional housing for faculty and staff provided in the Clark Kerr Campus and the City Environs Properties, in order to reduce VMT, which would in turn also reduce GHG emissions and impacts related to air quality, GHG emissions, and noise. Therefore, Alternative C would still be able to meet all of the project objectives, while also enhancing objectives for increasing housing stock for faculty and staff; furthering UC Berkeley's sustainability goals; prioritizing mobility system improvements; minimizing private vehicle access and maximizing other modes to decrease carbon emissions, congestion, and parking demand; and planning for a more resilient UC Berkeley campus. Alternative C, in comparison to the proposed project, would result in less environmental impacts from the proposed LRDP Update related to energy, GHG emissions, noise, population and housing, and transportation. It would result in greater impacts related to aesthetics, air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, public services, tribal cultural resources, utilities and service systems, and wildfire. Impacts from the proposed LRDP Update related to hazards and hazardous materials, land use and planning, and parks and recreation

would be similar under Alternative C and the proposed project.

Alternative C: Reduced Vehicle Miles Traveled, however, is infeasible because it would increase impacts for several environmental topic areas. (Draft EIR at Section 6.7.1).

E. FINDINGS ON MITIGATION MEASURES AND ALTERNATIVES PROPOSED IN COMMENTS

Several comments on the Draft EIR suggested additional mitigation measures and/or project alternatives. The Final EIR incorporates modification of certain mitigation measures (Mitigation Measure AIR-2.1, AIR-3, BIO-4, CUL-1.1b, CUL-2, GHG-2, and NOI-2) in response to comments received. However, where the suggestions requested minor modifications in adequate mitigation measures, requested mitigation for impacts that the Draft EIR determined were less than significant, or requested mitigation for impacts for which the Draft EIR already identified measures that would reduce the impact to less than significant, these requests were declined as unnecessary. The University adopts and incorporates by reference the specific reasons for declining such measures contained in the responses to comments in the Final EIR (see Chapter 5 of the Final EIR) as its grounds for rejecting these measures.

Additionally, certain mitigation measures and/or alternatives suggested in comments could reduce impacts that would otherwise be significant, but implementation of measures and/or alternatives would be infeasible.

FINDING: The University finds that specific economic, legal, social, technological, or other considerations make infeasible the following project alternatives identified in the Final EIR, for the reasons explained below.

1. Alternative Locations Outside of the EIR Study Area

Some comments on the Draft EIR suggested alternatives that would develop areas outside of the EIR Study Area, which is contiguous with the LRDP Planning Area, instead of restricting the evaluation of alternatives to only those within the EIR Study Area. Suggested locations include Richmond Bay Campus/Richmond Field Station, the Mills College Campus, Albany Village, satellite UC Berkeley campuses, or other off-campus sites. However, these locations are not included in the EIR Study Area because they are not part of the LRDP Update. The Mills College Campus is also not owned or managed by UC Berkeley and not part of the existing LRDP or the proposed LRDP Update. If UC Berkeley were to consider any expansion to one of these suggested locations, or another location outside of the LRDP Planning Area, such an expansion would happen under a separate planning and environmental review process unrelated to UC Berkeley's LRDP Update. Therefore, this alternative is rejected as infeasible.

2. Location of Housing in Alternative D, Increased Faculty and Staff Housing

As described on page 6-59 of the Draft EIR, under Alternative D, the Increased Faculty and Staff Housing Alternative, the proposed LRDP Update development program would include an additional 1,000 beds for faculty and staff and assumes that an additional 600 beds would be located in the

Hill Campus East and an additional 400 beds would be located in the Clark Kerr Campus. Some commenters claimed that because the specific locations of the 600 new beds in the Hill Campus East and the 400 new beds in the Clark Kerr Campus were not provided that no meaningful evaluation of Alternative D could be made. UC Berkeley respectfully disagrees with these assertions because this is an alternative considered at the program-level. Accordingly, as explained below, the location of the additional beds under this alternative provides sufficient information to allow meaningful evaluation, analysis, and comparison with the proposed project at the program level.

As described in Chapter 6 of the Draft EIR, the purpose of the alternatives evaluation is to identify a reasonable range of alternatives that could feasibly attain most of the basic objectives of the project and could avoid or substantially lessen any of the significant effects of the project. Accordingly, while no specific parcels have been selected for development on the Hill Campus East for Alternative D, it is stated on page 6-59 of the Draft EIR that any new development would be located in close proximity to existing development and infrastructure. This is because locating housing near existing development and infrastructure is paramount to achieving the objectives of the LRDP Update listed on pages 3-4 and 3-5 of the Draft EIR, such as:

- Improve the existing housing portfolio by providing additional new and renovated safe, secure, accessible, and high-quality housing units/beds for undergraduate and graduate students, faculty, and staff required to support a vital inclusive and intellectual community and promote full engagement in campus life in support of the Chancellor's Housing Initiative.
- Maintain natural areas as well as generous natural and built open spaces on the Campus Park and the Clark Kerr Campus.
- Maintain the Hill Campus East as open space that is managed to reduce wildfire risk and as a resource for research and energy resilience, focusing potential development on suitable sites.
- Further UC Berkeley as a leader in sustainability and meet and strive to exceed UC Berkeley sustainability goals and the goals of the UC Sustainable Practices Policy, Carbon Neutrality Initiative, and Seismic Safety policy.
- Take advantage of UC Berkeley's urban location to prioritize mobility system improvements that promote an accessible, efficient, sustainable, and safe campus.

In particular, any future sites selected by UC Berkeley in the Hill Campus East would be consistent with the LRDP Update EIR objective to "maintain the Hill Campus East as open space that is managed to reduce wildfire risk and as a resource for research and energy resilience, focusing potential development on suitable sites" (see page 3-4 in Chapter 3 of the Draft EIR) as well as the LRDP Update Goal 2.3, which is to "maintain the Hill Campus East as a resource for research, education, and energy resilience and focus potential development on suitable sites, while managing and reducing wildfire risk" (see page 3-11 in Chapter 3 of the Draft EIR). Suitable sites for additional housing in the Hill Campus East were determined to be those sites that are in close proximity to existing development and infrastructure which, as stated above, is clearly described in the Draft EIR. Accordingly, the evaluation of the additional housing under this alternative is based on this assumption, and not as some commenters incorrectly asserted, could be built anywhere in the 751 acres that make up the Hill Campus East zone.

As described on page 3-13 of the Draft EIR, UC Berkeley has identified potential areas of new

development and redevelopment that could accommodate additional housing on the Clark Kerr Campus. Improvements to housing facilities include modernization of existing facilities, redevelopment or renovation of existing buildings or underutilized sites, and renovation or redevelopment of existing facilities to address significant seismic and deferred maintenance needs. As shown in Table 3-2, Potential Areas of New Development and Redevelopment, on page 3-28 of the Draft EIR, the Clark Kerr Campus is organized by location (i.e., central, hillside, northwest, southeast, and southwest). The consideration of an additional 400 beds would be included within one or more of these areas, or potentially distributed across all of them. As described in Section 3.5.1.3, Land Use Element, in Chapter 3 of the Draft EIR, potential future development under the LRDP Update would be primarily focused on intensive and strategic use of existing UC Berkeley-owned land through determinations of where UC Berkeley can remodel, relocate, densify, or expand current facilities. This would be true for the additional 400 new beds on the Clark Kerr Campus under Alternative D as well. Also note that, consistent with the LRDP EIR Objectives (listed above), the additional 400 beds would not be located on the natural or built open spaces on the Clark Kerr Campus.

Some commenters questioned the comparison of impact conclusions for Alternative D that show greater construction and operational impacts when compared to the proposed project and asserted that in doing so UC Berkeley was attempting to eliminate Alternative D from true consideration. However, this is not the case because the very purpose for increasing housing for faculty and staff near the UC Berkeley campus is to reduce environmental impacts. As described in Chapter 6, the environmental topics of aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, public services, tribal cultural resources, utilities and services systems, and wildfire were determined to have greater impacts when compared to the proposed project (see Table 6-6, Comparison of Impacts of the Proposed Project and the Project Alternative). This is because Alternative D assumes more development than the proposed project; therefore, more intensive construction activities (in terms of both the amount and duration of construction) and consequently more construction-related impacts would occur when compared to the LRDP Update. The greater impacts are described as being temporary and during the construction phase and not during the operational phase. For example, as described above, because the additional beds would be located near other development whether it be on the Hill Campus East or on the Clark Kerr Campus, this has the potential to increase the amount of sensitive receptors that could be exposed to temporary construction impacts. Alternative D would potentially create more ground disturbance and, therefore, impacts associated with cultural resources, tribal cultural resources, energy, geology and soils, and hydrology and water quality are assumed to be greater when compared to the proposed project. Impacts to biological resources are likewise assumed to be greater when compared to the proposed project because, while development in the Hill Campus East would be in close proximity to existing development and infrastructure, the likelihood of the additional beds being located on undeveloped land is greater in this zone than in the other four, more urbanized, zones. Therefore, the likelihood for impacts to natural areas with suitable habitat for flora and fauna would be greater when compared to the proposed project. Although some commenters asserted that such an assumption in the Draft EIR was speculative because the precise sites for future development are not yet determined, UC Berkeley respectfully disagrees and believes that a finding of greater impacts in these topic areas as described in detail in Chapter 6 of the Draft EIR is the appropriate and conservative conclusion.

As described in the Draft EIR, the LRDP Update and the Draft EIR's evaluation of the LRDP Update are program-level documents and the precise details for future development projects, with the exception of Housing Projects #1 and #2, are not known, nor are they required under CEQA. As described on page 3-26 of the Draft EIR, the locations for potential future development are a menu of options and, with the exception of Housing Projects #1 and #2, no specific sites have been selected for development projects. As described in Chapter 6 of the Draft EIR, the only change under Alternative D from the proposed project is the increased number of beds, which would increase the buildout projections, but no changes to the EIR Study Area would occur. Therefore, the project description provided in Alternative D for the LRDP Update is provided at an appropriate level of detail similar to proposed LRDP Update and this alternative is rejected because it does not increase the range of feasible alternatives.

3. Reduced or Capped Enrollment Alternative

Some commenters suggested alternatives involving reduced or capped enrollment. As described in Section 1.1, Proposed Action, of the Draft EIR, the proposed LRDP Update does not determine future UC Berkeley enrollment or population, or set a future population limit for UC Berkeley, but guides land development and physical infrastructure to support enrollment projections and activities coordinated by the University of California Office of the President. As such, the proposed project accommodates enrollment projections that occur under separate processes. Furthermore, Section 6.2.3.1, Reduced Graduate Program and Research Alternative, describes an alternative that would reduce or cap student enrollment under UC Berkeley's graduate program, over which UC Berkeley has more control. However, graduate students are vital elements of UC Berkeley's research endeavors and teaching resources; in any given semester, approximately 2,000 graduate student instructors work with UC Berkeley students in studios, laboratories, and discussion sections. Reducing or eliminating UC Berkeley's graduate and professional schools or academic research and policy institutes would conflict with the proposed LRDP Update's project objective of maintaining, supporting, and enhancing UC Berkeley's status as an internationally renowned public research-intensive institution and center for scientific and academic advancement. Therefore, this alternative was considered but rejected because it would not meet a core project objective. Similarly, reducing nonresident undergraduates (currently capped at 24.4 percent, though there is a pending proposal to reduce the cap to 18 percent) would also conflict with UC Berkeley's objective of maintaining, supporting, and enhancing its status as an internationally renowned center for scientific and academic advancement by providing opportunities for highly qualified nonresident students, some of whom may advance into graduate programs and faculty positions.

4. Housing on Campus Park Alternative

Regarding comments suggesting locating housing on the Campus Park instead of elsewhere in the EIR Study Area, as proposed, UC Berkeley continues to find that it is neither feasible nor desirable to locate housing on the Campus Park. Land at UC Berkeley has always been and continues to be a scarce resource. In order to optimize the use of limited resources, programs that directly engage students in instruction, research and campus life have always been prioritized on the Campus Park. Consistent with this guiding principle, necessary instructional, research, and campus life facilities have been expanded over time based on UC Berkeley's program needs, in accordance with previous LRDPs. The proposed LRDP Update includes as Goal 5.1: "Ensure the highest and best use of

campus land to serve UC Berkeley's mission"; and as a land use objective for the Campus Park: "Prioritize land in the Campus Park for academic, research, student life, and student service uses that directly engage students." The proposed LRDP Update anticipates future instructional, research, and campus life program needs on the Campus Park, associated with key drivers such as the Strategic Plan and the UC Seismic Safety Policy, in accordance with Goal 5.1 and the Campus Park land use objectives. Therefore, this alternative is rejected because it would not meet a project objective.

5. More Intense Housing Alternative

While the Draft EIR includes two alternatives (Alternative B and C) that increase beds in the EIR Study Area, some commenters suggested that UC Berkeley should have considered an alternative that includes more intense housing on the sites identified in Chapter 3 of the Draft EIR as potential areas of new development and redevelopment (see Table 3-2, Potential Areas of New Development and Redevelopment, and Figure 3-3, Potential Areas of New Development and Redevelopment). As described in the Chapter 3, Table 3-1, Proposed LRDP Update Buildout Projections, of the Draft EIR provides an overview of UC Berkeley's long-term space needs. The housing program responds to the goal of the Chancellor's Housing Initiative to provide student housing beds and faculty housing units for the current UC Berkeley population, plus additional housing associated with LRDP population projections. The Chancellor's Housing Initiative reflects goals to provide two years of housing for entering freshmen; one year for entering transfer students; one year for entering graduate students; and up to 6 years for untenured faculty. As such, UC Berkeley determined that the maximum amount of housing that would be reasonable to strive to achieve is what is presented in Chapter 3 for the proposed project. Suggestions by commenters to build smaller rooms with no campus life amenities would not be in alignment with the LRDP Update or Housing Projects #1 and #2 EIR Objectives such as:

- Improve the existing housing portfolio by providing additional new and renovated safe, secure, accessible, and high-quality housing units/beds for undergraduate and graduate students, faculty, and staff required to support a vital inclusive and intellectual community and promote full engagement in campus life in support of the Chancellor's Housing Initiative.
- Maintain and enhance the image and experience of the UC Berkeley campus and support the continuing evolution of the UC Berkeley campus's notable and historic landscapes and architecture.
- Maintain, support, and enhance UC Berkeley's status as an internationally renowned, 21st-century, public research-intensive university and center for scientific and academic advancement by expanding its graduate and professional schools, policy institutes, research programs, laboratories, and institutions.
- Provide essential amenities and campus life facilities to foster a vibrant, convenient, and well-served student community with a variety of indoor uses and outdoor spaces that provide connections between the natural and built environment for a shared sense of community, interaction, and wellness.
- Provide an architecturally distinctive project with high quality materials and ground level landscaping that will contribute positively to the City Environs Properties in Downtown Berkeley and support the continuing evolution of the UC Berkeley campus's notable and historic landscapes and architecture.

- Enhance the vibrancy of the City Environs Properties and the sense of community enjoyed by UC Berkeley affiliates and City of Berkeley residents by providing a pedestrian-friendly project that includes housing, open space and greenery, office space, and activated ground floor uses, which may include neighborhood retail.

Further, while more intense housing could have been considered on the existing sites in Table 3-2, such aspirations would have been potentially unattainable in the 2036-37 buildout horizon and this alternative is therefore rejected as infeasible. This does not mean that UC Berkeley would not consider more housing if such an opportunity were presented between project approval and the 2036-37 buildout horizon evaluated in the Draft EIR. As stated in the Chapter 3, if the amount of development evaluated in the Draft EIR were to exceed the buildout projections, UC Berkeley would be required to amend the LRDP and conduct additional environmental review as necessary.

6. Relocation of Historic Buildings Alternative

Some commenters questioned why relocating some of the historic buildings that are identified as potential development or redevelopment sites was not considered in the Draft EIR. While the relocation of a historic structure has been successfully accomplished by UC Berkeley in the past, this was for a small cottage and was able to be accommodated on the Hill Campus East. However, as described in Master Response 5, consistent with Section 15126.4 of the CEQA Guidelines, the Draft EIR proposes and describes mitigation measures designed to minimize, reduce, or avoid each identified potentially significant impact whenever it is feasible to do so, including mitigation for historic resources. The term "feasible" is defined in Section 15364, Feasible, of the CEQA Guidelines to mean, "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." Here UC Berkeley does not find that the relocation of historic resources is an economically feasible option for mitigation or a viable alternative for Housing Project #1. The relocation of a resource requires identifying and securing feasible alternative sites, technical challenges in avoiding damage to the resource through the relocation process, consideration and study of the potential impact to other historic resources in the vicinity of the proposed relocation site, and consideration and assessment of the potential impact to the resource of altering its historic setting. Consequently, depending on the circumstances of the resource and relocation plans, relocating buildings may not lessen or avoid an impact to historic resources and could add to the cost of much needed housing. For all of these reasons, relocation of historic resources is not a feasible alternative or mitigation measure.

7. Converting University Hall from Academic Life to Residential

Some commenters questioned if University Hall, located at Oxford Street between University Avenue and Addison Street, was considered for housing. This site was not considered for housing because it is part of the UC Berkeley academic space portfolio. However, this site is identified as a site for potential growth for academic life and parking, as shown in Table 3-2, Potential Areas of New Development and Redevelopment of the Draft EIR, and therefore this alternative is rejective as infeasible.

8. Avoid All Historic Resources

Some commenters questioned why an alternative that avoids all historic resources was not considered in the Draft EIR. The Draft EIR provides documentation to demonstrate why avoiding historic resources altogether would not be possible to implement the proposed LRDP Update. As described in Chapter 3, Project Description, on page 3-26 of the Draft EIR, as part of the proposed LRDP Update planning process, UC Berkeley identified potential areas for new development, redevelopment, and renovation that could accommodate the proposed buildout projections shown in Table 3-1, Proposed LRDP Update Buildout Projections. Potential areas of new development are identified on limited sites that are not currently developed or where a new structure would be constructed, and potential areas of redevelopment are identified on sites where the existing structure would be demolished and a new structure(s) would be constructed in its place. Potential areas of new development, redevelopment and renovation are organized as follows:

- **Potential areas of New Development and Redevelopment.** These areas are listed in Table 3-2, Potential Areas of New Development and Redevelopment, and shown on Figure 3-3, Potential Areas of New Development and Redevelopment.
- **Potential Areas of Renovation.** These areas are identified on sites where existing structures could be remodeled. Potential areas of renovation are listed in Table 3-3, Potential Areas of Renovation Only, and shown on Figure 3-4, Potential Areas of Renovation.

As shown on Tables 3-2 and 3-3 of the Draft EIR out of all the areas of potential growth, 20 are identified as existing designated historic resources. Chapter 6, Alternatives to the Proposed Project, of the Draft EIR, and Chapter 5.4, Cultural Resources, state that in addition to the 20 designated historic resource properties, six properties are eligible for listing, and an additional 15 properties as potentially eligible. Since the Draft EIR was released, it was determined that Frederick G. Hesse Hall is no longer potentially eligible, so there are now only 14 potentially eligible sites. Combined this is 40 of the 79 sites identified in Tables 3-2 and 3-3 as candidate sites where new buildout could occur to implement the proposed LRDP Update. Accordingly, the conclusion that it would be infeasible to accommodate the LRDP Update development program without potentially affecting historic resources either directly through renovation or redevelopment of historic resource properties, or through development on vacant sites where the potential to affect an historic district exists is demonstrated in the Draft EIR and therefore this alternative is rejected as infeasible.

F. OTHER FINDINGS

1. Revisions to the Final EIR

Chapter 5 of the Final EIR includes the comments received on the Draft EIR and responses to those comments. The focus of the responses to comments is on the disposition of significant environmental issues as raised in the comments, as specified by CEQA Guidelines § 15088(a).

Following publication of the Draft EIR, the plans for Housing Project #1 were revised to accommodate two extra beds, bringing the total planned bed count for Housing Project #1 from 770 to 772. This does not represent a substantial change to the project description that would require revision of analysis in the Draft EIR. The total bed count under the LRDP Update, which was analyzed in the Draft EIR, does not change. Revisions to the bed counts in Chapter 3, Project

Description, of the Draft EIR, are listed in Chapter 3, Revisions to the Draft EIR, of the Final EIR to reflect this change.

Some commenters expressed concern about the use of pile driving and other vibration-causing construction equipment at the Housing Project #1 and #2 sites. Since publication of the Draft EIR, the project sponsors for Housing Projects #1 and #2 have confirmed that the foundation for the projects do not require the installation of any driven piles. Although pile driving would not be required for Housing Projects #1 and #2, Mitigation Measure NOI-2 would still apply to the projects. Because vibration levels would be less intensive than described in the Draft EIR, this change to the project does not constitute "significant new information" requiring recirculation pursuant to CEQA Guidelines § 15088.5, Recirculation of an EIR Prior to Certification.

2. Absence of Significant New Information – No Recirculation Required

CEQA Guidelines § 15088.5 requires that a lead agency recirculate an EIR for additional review and comment when significant new information is added to the EIR after the public comment period but before certification of the EIR. Such information can include changes in the project or environmental setting, but that information is not significant unless the EIR is changed in a manner that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponent declines to implement.

Chapter 3, Revisions to the Draft EIR, of the Final EIR contains text revisions to the Draft EIR that were made in response to comments from agencies, organizations and the public, as well as staff-directed changes. These text revisions include typographical corrections, insignificant modifications, and amplifications and clarifications of the Draft EIR. None of the minor text changes or classifications substantially alters the analysis in the Draft EIR, and they do not trigger the criteria for recirculation.

The University finds that no significant new information was added to the Draft EIR after the public review period. The University specifically finds that: no new significant environmental impact would result from the LRDP Update or from the implementation of a mitigation measure; no substantial increase in the severity of an environmental impact previously found to be significant would result; the University has not declined to adopt any feasible project alternative or mitigation measures considerably different from others previously analyzed that would clearly lessen the environmental impacts of the LRDP Update; and the Draft EIR is not so fundamentally and basically inadequate in nature that it precluded meaningful public review.

Having reviewed the information in the Draft EIR, Final EIR, and administrative record, as well as the requirements under CEQA Guidelines § 15088.5 and interpretive judicial authority regarding recirculation of Draft EIRs, the University finds that no new significant information was added to the EIR following public review, and recirculation of the EIR is therefore unnecessary and not required by CEQA.

3. Differences of Opinion Regarding the LRDP Update's Impacts

In making its determination to certify the Final EIR and to approve the LRDP Update, the University recognizes that the LRDP Update involves several controversial environmental issues and that a range of opinion exists with respect to these issues. Through its review of the Final EIR, the comments received on the Draft EIR, the responses to comments, and the whole of the administrative record, the University has acquired a comprehensive understanding of the scope of such issues. This has enabled the University to make fully informed and thoroughly considered decisions after taking into account the various viewpoints on the important environmental issues involved in the LRDP Update's implementation. Considering the evidence and analysis presented in the Final EIR and the administrative record as a whole, the University finds that the findings herein are based on a full appraisal of all viewpoints expressed throughout the CEQA review process, as well as other relevant information contained in the administrative record.

IV. STATEMENT OF OVERRIDING CONSIDERATIONS

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable." (CEQA Guidelines § 15093.) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the Final EIR but are not avoided or substantially lessened, the agency must state in writing the specific reason to support its actions based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record. (CEQA Guidelines § 15093.)

Having (i) adopted all CBPs and feasible mitigation measures, (ii) recognized all significant, unavoidable impacts, and (iii) balanced the benefits of the LRDP Update against its significant and unavoidable impacts, the University finds that the LRDP Update's benefits outweigh and override its significant unavoidable impacts for the reasons stated below. Each benefit set forth below constitutes an overriding consideration warranting approval of the LRDP Update, independent of the other benefits, despite each and every unavoidable impact.

The benefits of the Project include the following:

1. The LRDP Update will expand on-campus housing stock by providing up to 11,073 student beds and 549 employee housing units in support of the Chancellor's Housing Initiative; safe, secure, accessible, and high quality campus housing will provide opportunities for members of the campus community to support a vital inclusive and intellectual community and promote full engagement in campus life, and enable UC Berkeley to continue to recruit, retain, and high quality student and faculty candidates. Some proposed housing sites include existing housing with significant deferred maintenance, and the LRDP Update would address those conditions through redevelopment. Additionally, providing more on-campus housing will relieve pressure on local and regional housing markets.

2. The LRDP Update provides a program of over 7 million net new gross square feet of academic life, campus life, and residential space to address existing and future space shortages, correct deficiencies and technological obsolescence in existing facilities, and provide for greater and more adaptable and flexible academic and research space to accommodate new or expanded initiatives and programs.

3. The LRDP Update will upgrade and modernize buildings and infrastructure, thus contributing to UC Berkeley's sustainability and seismic safety goals.

4. The LRDP Update supports UC Berkeley's objective of creating a physical framework to support the teaching, research, and public service mission of the campus, including a dynamic learning and discovery environment and an interactive and welcoming public service environment.

5. The LRDP Update will enhance key elements of the campus structure, including historic axes, natural resources, and heritage landscapes.

6. The LRDP Update will enable UC Berkeley to serve the public good for decades to come by modernizing facilities to state-of-the-art standards, incorporating flexibility and adaptability into new and existing facilities to accommodate future change, and support its mission as an internationally renowned, 21st-century, public research-intensive institution.

7. The LRDP Update will maintain the compact, connected, and sustainable nature of campus development by siting new facilities to foster a shared sense of community, interaction, and wellness, and maintain a balance between built and open space areas. The full LRDP Update development program can be accommodated on existing university properties, in addition to a small net increase in open space.

8. The LRDP Update will improve safety on campus through adjustments to mobility and circulation systems that enhance accessibility and reduce conflicts between pedestrians, bicycles, and vehicles. Continued commitment to transportation demand management (TDM) programs will contribute to the campus's sustainability goals.

9. The LRDP Update will implement strategies to enhance campus resilience, protect human health and safety, and adapt campus landscapes to improve environmental health, enhance ecology and biodiversity, and create educational and research opportunities.

10. The LRDP Update prioritizes implementing fire management strategies to mitigate fire risk and reduce risk to life, property, and natural resources on campus and in the greater East Bay region.

11. The LRDP Update will advance California's economic, social and cultural development, which depends upon broad access to an educational system that prepares all of the State of California's inhabitants for responsible citizenship and meaningful careers.

12. The LRDP Update will constitute a significant economic benefit to the East Bay region, as

UC Berkeley has a significant economic impact on the area's economy. The total economic impact of UC Berkeley in the region is much greater than the sum of the direct expenditures made by UC Berkeley and its affiliated organizations and populations.

13. UC Berkeley provides many direct services for both on-campus and off-campus users, including but not limited to: police protection and rescue services; library services; parks and recreation services; and other academic and support services. Additionally, UC Berkeley provides many indirect community contributions in the form of education, artistic, and cultural enrichment to residents of the region through extension courses, performing arts events, art exhibits, sporting events, and conferences and workshops.

14. The LRDP Update will create thousands of temporary construction jobs, and thousands of new permanent jobs.

When compared to the alternatives analyzed in the Final EIR (including the No Project Alternative), the LRDP Update provides the best available balance between maximizing attainment of the project objectives and minimizing significant environmental impacts.

V. APPROVALS

The University hereby takes the following actions:

1. Certify the Final EIR as described in Section I, above.

2. Adopt as conditions of approval of the LRDP Update all Mitigation Measures and Continuing Best Practices within the responsibility and jurisdiction of the University.

3. Adopt the Mitigation Monitoring and Reporting Program for the LRDP Update.

4. Adopt the CEQA Findings and Statement of Overriding Considerations for the LRDP Update.

5. Approve the LRDP Update.