### CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS OF FACT REGARDING ADDENDUM NO. 2 TO THE 2021 LONG RANGE DEVELOPMENT PLAN AND HOUSING PROJECTS #1 AND #2 ENVIRONMENT IMPACT REPORT AND DESIGN APPROVAL FOR Bechtel Engineering Center Renovation and Addition, UC Berkeley State Clearinghouse No. 2020040078

# I. CONSIDERATION OF 2021 LRDP EIR AND ADDENDUM NO. 2

Pursuant to the California Environmental Quality Act, Public Resources Code ("PRC") Sections 21000 *et seq.* and the State CEQA Guidelines, Title 14, California Code of Regulations, Sections 15000 *et seq.* ("CEQA Guidelines") (collectively, "CEQA"), the Board of Regents of the University of California (the "University"), or its delegate (collectively referred to herein as the "University"), has considered the Environmental Impact Report prepared for the University of California, Berkeley ("UC Berkeley" or "UC Berkeley campus") 2021 Long Range Development Plan ("2021 LRDP") and Housing Projects #1 and #2, State Clearinghouse Number 2020040078, which was certified by the University in July 2021 ("2021 LRDP EIR"), and the Addendum No. 2 thereto, dated September 2022, for the University's design approval of the Bechtel Engineering Center Renovation and Addition Project ("Addendum No. 2").

The 2021 LRDP EIR, including the information contained in the Addendum No. 2, contains the environmental analysis and information necessary to support approval of the Bechtel Engineering Center Renovation and Addition Project (hereafter, the "Project"), as set forth in Section III, below.

#### II. <u>FINDINGS</u>

### A. **PROJECT DESCRIPTION**

UC Berkeley would renovate and expand by 34,700 gross square feet (GSF) the existing Bechtel Engineering Center building. The Project would include a two-story addition to provide accessible, inclusive, and flexible and operationally resilient indoor and outdoor campus life spaces to create a shared sense of community, interaction, and wellness for the College of Engineering. The existing exterior staircase towards the west side of the building, the landscaped area in front of the building (located directly above the Kresge Engineering Library), and the majority of the existing rooftop known as Trefethen Terrace, would be removed to accommodate the addition. The Project would create new outdoor study and collaboration spaces to replace the existing Trefethen Terrace. These outdoor spaces would be shaded by a new roof canopy extending from the roof of the two-story addition. The Project does not include vehicle parking.

The Project would increase the estimated peak daily occupancy of the building to approximately 1,100 people from the current estimated 755 people. However, the Project would accommodate the existing student, faculty, and staff population of the College of Engineering and would not result in an increase to the UC Berkeley campus population beyond levels analyzed in the 2021 LRDP EIR.

Planning for the Project is guided by the UC Berkeley 2021 LRDP. The UC Berkeley 2021 LRDP designates the project site, located within the Campus Park, as academic life and campus life space. The 2021 LRDP EIR identifies that the highest priority needs for academic life space are classrooms and study space, and that academic life spaces under the 2021 LRDP will be primarily located within the Campus Park. The Project would not change Bechtel Engineering Center's existing land uses of academic life and campus life. Therefore, it has been determined that the Project is consistent with the land use categories in the 2021 LRDP.

### **B.** ENVIRONMENTAL REVIEW PROCESS

In July 2021, the University certified the 2021 LRDP EIR in accordance with CEQA and the University of California Procedures for Implementation of CEQA and adopted the 2021 LRDP. The 2021 LRDP EIR analyzed the scope and nature of development proposed to meet the growth of UC Berkeley through the 2036-37 academic year, including projections in student population and total campus population. The 2021 LRDP EIR identified measures to mitigate, to the extent feasible, the significant adverse project and cumulative impacts associated with growth of UC Berkeley under the 2021 LRDP.

The 2021 LRDP plans for up to 8,096,249 net new GSF of residential, academic life, campus life, and parking facility space to be developed within the area governed by the 2021 LRDP, including up to 2,284,588 net new GSF of academic life space to be located primarily within the Campus Park. The Project would construct 34,700 GSF of academic life and campus life space on the UC Berkeley Campus Park. Therefore, the Project would result in total development within levels anticipated in the 2021 LRDP. The 2021 LRDP also projected a total UC Berkeley campus population of 67,200 students and employees. The Project would not result in student or employee population growth at UC Berkeley. Therefore, the UC Berkeley campus population would remain within levels analyzed in the 2021 LRDP EIR.

The 2021 LRDP EIR was prepared in accordance with PRC Section 21094 (CEQA) and CEQA Guidelines Section 15168 and analyzed the environmental impacts of the 2021 LRDP. Pursuant to CEQA Guidelines Section 15168(c) "subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared." Pursuant to CEQA Guidelines Section15168(c)(4), an agency should use "…a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR." Pursuant to CEQA Guidelines Section 15164(a), "[t]he lead agency … shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred."

Addendum No. 2 for the Bechtel Project was prepared in compliance with CEQA to document UC Berkeley's determination that a subsequent or supplemental EIR is not required. Addendum No. 2 contains a detailed and comprehensive review of the Project and the resulting impacts, and concludes that implementation of the Project would not cause any new significant environmental impacts nor an increase in the severity of significant impacts previously identified

and studied in the 2021 LRDP EIR. There have not been any substantial changes with respect to the circumstances under which implementation of the 2021 LRDP would be undertaken that would require major revisions to the previously certified 2021 LRDP EIR. In addition, there is no new information of substantial importance, which was not known and could not have been known at the time that the 2021 LRDP EIR was certified showing that new or more severe environmental impacts not addressed in the 2021 LRDP EIR would occur, that mitigation measures or alternatives found infeasible in the 2021 LRDP EIR would in fact be feasible, or that different mitigation measures or alternatives from those analyzed in the 2021 LRDP EIR would substantially reduce one or more significant impacts.

Addendum No. 2 analyzes the environmental effects of the Project in relation to the environmental analysis in the 2021 LRDP EIR with regard to the following environmental topic areas: Aesthetics; Agriculture and Forestry Resources; Air Quality; Biological Resources; Cultural Resources; Energy; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Parks and Recreation; Transportation; Tribal Cultural Resources; Utilities and Service Systems; and Wildfire. It also identifies mitigation measures adopted as part of the 2021 LRDP EIR relevant to the Project that have been incorporated into and must be implemented as part of the Project. All mitigation measures and continuing best practices in the 2021 LRDP EIR relevant to the Project, as well as all components of the Project described in Addendum No. 2, are included in the Approval and are made conditions of the Project.

### C. ADDITIONAL FINDINGS

### **1. Incorporation by Reference**

These Findings incorporate by reference in their entirety the text of Addendum No. 2 prepared for the Project, the 2021 LRDP EIR, and the Findings adopted in support of the 2021 LRDP previously certified and/or adopted by the University.

### 2. Mitigation Monitoring

The University adopted a Mitigation Monitoring and Reporting Program ("2021 LRDP MMRP") in connection with the certification of the 2021 LRDP EIR. The 2021 LRDP MMRP includes mitigation measures applicable to the Bechtel Project and designates responsibility and anticipated timing to ensure the implementation of adopted mitigation measures within the jurisdiction of UC Berkeley.

The following mitigation measures identified in the 2021 LRDP MMRP and are hereby incorporated into the Bechtel Project:

Environmental	
Issue Area	Mitigation Measure
Air Quality	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

Environmental	
Issue Area	Mitigation Measure
	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 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.
	<ul> <li>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.</li> <li>The construction equipment list shall state the makes, models, and numbers of construction equipment on-site.</li> <li>To the extent that equipment is available and cost-effective, contractors shall use electric, hybrid, or alternate-fueled off-road construction equipment.</li> <li>Contractors shall use electric construction tools, such as saws, drills, and compressors, where grid electricity is available.</li> <li>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.</li> </ul>
	• 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.
Air Quality	<b>Mitigation Measure AIR-2.2:</b> 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.
Biological Resources	<b>Mitigation Measure BIO-4:</b> 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

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Environmental		
Issue Area	Mitigation Measure	
Issue Area	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.	
Cultural	Mitigation Measure CUL-1.1a: If a project could cause a substantial adverse change in	
Resources	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.	
Cultural	Mitigation Measure CUL-1.1b: For projects that would cause a substantial adverse	
Resources	<ul> <li>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</li> <li>Environmental Design Archives, or the California Historical Resources Information System Northwest Information Center. This documentation shall include a historical narrative, photographs, and/or drawings:</li> <li>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.</li> </ul>	

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Environmental Issue Area	Mitigation Measure
	<ul> <li>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.</li> <li>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.</li> </ul>
	The Campus Architect shall verify compliance with this mitigation measure prior to the initiation of any site or building demolition or construction activities.
Cultural Resources	<b>Mitigation Measure CUL-1.1c:</b> 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.
Cultural Resources	<b>Mitigation Measure CUL-1.1d:</b> 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.
Cultural	Mitigation Measure CUL-1.1e: Implement Mitigation Measure NOI-2.
Resources Noise	<ul> <li>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.</li> <li>Step 1 (Activity/Equipment Screening Distances): UC Berkeley shall use the</li> </ul>

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Environmental					
Issue Area	Mitigation Measure construction vibration screening standards shown below based on Federal Transit				
	vibration screening dist	tances that could cause b	building damage/hun	han annoyance or	
		sturbance. If the construct			
		n Step 2 (Alternative Me			
	Screening Distances to PP	V in/sec Threshold: Building [			
	Activity/Equipment	Reference Vibration Levels (in/sec PPV) at 25 feet	Screening Level Distance in feet for 0.20 in/sec PPV <sup>a</sup>	Screening Level Distance in feet for 0.12 in/sec PPV <sup>b</sup>	
	Pile Driving	1.518		136	
			97		
	Caisson Drilling	0.089	15	21	
	Vibratory Roller	0.21	26	37	
	Large Bulldozer	0.089	15	21	
	Screening Distance to VdB	Threshold: Human Annoyan			
	Activity/Equipment	Reference Vibration Levels (VdB) at 25 feet	Screening Level Distance in feet for 72 VdB <sup>c</sup>	Screening Level Distance in feet for 65 VdB <sup>d</sup>	
	Pile Driving	112	520	890	
	Caisson Drilling	87	80	140	
	Vibratory Roller	94	140	240	
	Large Bulldozer	87	80	140	
	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.				
	<ul> <li>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:</li> <li>o 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.</li> <li>o For grading and earthwork activities, off-road equipment shall be limited to 100 horsepower or less.</li> <li>Where alternative methods/equipment to vibration causing activities/equipment are not feasible, then Step 3 (Construction Vibration Monitoring Program) shall be</li> </ul>				
	implemented. • Step 3 (Construction excavation, demolition	<b>Vibration Monitoring</b> or construction activity 1 (Activity/Equipment S	<b>Program):</b> Prior to for projects within the second	any project-related he screening	

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Environmental	
Issue Area	Mitigation Measure
	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.
	<ul> <li>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.</li> <li>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</li> </ul>
	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.
	<ul> <li>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.</li> <li>Report substantial adverse impacts to vibration sensitive buildings including historic</li> </ul>
	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

Environmental	
Issue Area	Mitigation Measure
	Mitigation Measuredifferent methods, in situations where demolition, excavation/construction activitieswould imminently endanger historic resources. UC Berkeley's designated representativewould 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 UCBerkeley's designated representative. Any new cracks or other damage to any of theidentified properties will be compared to pre-construction conditions and adetermination 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 damagewould be repaired to the pre-existing condition. Site visit reports and documentsassociated with claims processing would be provided to the relevant government bodywith jurisdiction over the neighboring historic resource, as necessary.o Conduct a post-survey on the structure where either monitoring has indicated highlevels or complaints of damage and make appropriate repairs where damage hasoccurred as a result of construction activities.o Prepare a construction vibration monitoring report that summarizes the results of allvibration monitoring and submit the report after the completion of each phase identifiedin the project construction schedule. The vibration monitoring report shall include adescription 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 within 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.

In addition, as part of the Project, UC Berkeley will implement the following continuing best practices (CBPs):

Environmental			
Issue Area	<b>Continuing Best Practice</b>		
Aesthetics	Continuing Best Practice AES-1: New projects will as a general rule conform to the		
	Physical Design Framework. While the guidelines in the Physical Design Framework		
	would not preclude alternate design concepts when such concepts present the best		
	solution for a particular site, UC Berkeley will not depart from the Physical Design		
	Framework except for solutions of extraordinary quality.		
Aesthetics	Continuing Best Practice AES-2: Major new campus projects will continue to be		
	reviewed at each stage of design by the UC Berkeley Design Review Committee. The		
	provisions of the LRDP, as well as project-specific design guidelines prepared for each		
	such project, will guide these reviews.		
Aesthetics	Continuing Best Practice AES-6: Lighting for new development projects will be		
	designed to include shields and cut-offs that minimize light spillage onto unintended		

Environmental Issue Area	Continuing Best Practice
	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.
Aesthetics	Continuing Best Practice 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.
Air Quality	Continuing Best Practice 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 currer
	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 to
	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 t
	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.
Air Quality	Continuing Best Practice 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.
Biological	Continuing Best Practice BIO-1: Avoid disturbance or removal of bird nests protecte
Resources	under the federal Migratory Bird Treaty Act and California Department of Fish and
	Game Code when in active use. This will be accomplished by taking the following step
	• If tree removal and initial construction is proposed during the nesting season (Februar

Environmental		
Issue Area	<b>Continuing Best Practice</b>	
	1 to August 31), a focused survey for nesting raptors and other migratory birds will be	
	conducted by a qualified biologist within 14 days prior to the onset of tree and	
	vegetation removal in order to identify any active nests on the site and surrounding area	
	within up to 500 feet of proposed construction, with the distance to be determined by a	
	qualified biologist based on project location. The site will be resurveyed to confirm that	
	no new nests have been established if vegetation removal and demolition has not been	
	completed or if construction has been delayed or stopped for more than seven	
	consecutive days during the nesting season.	
	• If no active nests are identified during the construction survey period, or development	
	is initiated during the non-breeding season (September 1 to January 31), tree and	
	vegetation removal and building construction may proceed with no restrictions.	
	• If bird nests are found, an adequate setback will be established around the nest location	
	and vegetation removal, building demolition, and other construction activities shall be	
	restricted within this no-disturbance zone until the qualified biologist has confirmed that	
	birds have either not begun egg-laying and incubation, or that the juveniles from those	
	nests are foraging independently and capable of survival outside the nest location.	
	Required setback distances for the no-disturbance zone will be based on input received	
	from the California Department of Fish and Wildlife and may vary depending on species	
	and sensitivity to disturbance. As necessary, the no-disturbance zone will be fenced with	
	temporary orange construction fencing if construction is to be initiated on the remainder	
	of the site.	
	• A report of findings will be prepared by the qualified biologist and submitted to the UC	
	Berkeley's Office of Physical & Environmental Planning for review and approval prior	
	to initiation of vegetation removal, building demolition and other construction activities	
	during the nesting season. The report will either confirm absence of any active nests or confirm that any young are located within a designated no-disturbance zone and	
	construction can proceed. No report of findings is required if vegetation removal and	
	other construction activities are initiated during the non-nesting season and continue	
	uninterrupted according to the above criteria.	
Biological	<b>Continuing Best Practice BIO-9:</b> Adverse effects to specimen trees and plants will be	
Resources	avoided. UC Berkeley will continue to implement the Campus Specimen Tree Program	
	to reduce effects to specimen trees and flora. Replacement landscaping will be provided	
	where specimen resources are adversely affected, either through salvage and	
	transplanting of existing trees and shrubs or through new horticulturally appropriate	
	replacement plantings, as directed by the Campus Landscape Architect.	
Biological	Continuing Best Practice BIO-10: Implementation of the recommendations of the	
Resources	Landscape Master Plan and subsequent updates, and project-specific design guidelines,	
	will provide for stewardship of existing landscaping, and use of replacement and	
	expanded tree and shrub plantings to improve the important open space characteristics	
	and resilience of the Campus Park. Native plantings and horticulturally appropriate	
	species will continue to be used in future landscaping, serving to partially replace any	
	trees lost as a result of development.	
Geology and	Continuing Best Practice GEO-1: UC Berkeley will continue to comply with the	
Soils	California Building Code and the University of California Seismic Safety Policy.	
Geology and	Continuing Best Practice GEO-2: Site-specific geotechnical studies will be conducted	

Environmental Issue Area	Continuing Best Practice		
Soils	under the supervision of a California Registered Certified Engineering Geologist or licensed geotechnical engineer and UC Berkeley will incorporate recommendations for		
	geotechnical hazard prevention and abatement into project design.		
Geology and Soils	<b>Continuing Best Practice GEO-3:</b> The UC Berkeley Seismic Review Committee will continue to review all seismic and structural engineering design for new and renovated existing buildings on campus.		
Geology and Soils	<b>Continuing Best Practice GEO-4:</b> UC Berkeley will continue to use site-specific seismic ground motions for analysis and design of campus projects. Site-specific ground motions provide more current geo-seismic data than the U.S. Geological Survey (USGS) and are used for performance-based analyses.		
Geology and Soils	<b>Continuing Best Practice GEO-5:</b> UC Berkeley will continue to comply with the UC Seismic Safety Policy. Through this program, UC Berkeley will continue to identify buildings in need of upgrades and include seismic improvements as part of its Capital Financial Plan.		
Geology and Soils	<b>Continuing Best Practice GEO-6:</b> UC Berkeley will continue to implement programs and projects in emergency planning, training, response, and recovery. Each campus Building Coordinator will prepare, and update as needed, building response plans and coordinate education and planning for all building occupants.		
Geology and Soils	<b>Continuing Best Practice GEO-7:</b> As stipulated in the UC Seismic Safety Policy, the design parameters for specific site peak acceleration and structural reinforcement will be determined by the geotechnical and structural engineer for each new or rehabilitation project proposed under the LRDP. The acceptable level of actual damage that could be sustained by specific structures will be calculated based on geotechnical information obtained at the specific building site.		
Geology and Soils	<b>Continuing Best Practice GEO-8:</b> Site-specific geotechnical studies will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.		
Geology and Soils	<b>Continuing Best Practice GEO-9:</b> Campus construction projects must comply with the Campus Design Standards, which contain regulatory and other campus requirements for construction-phase and post-construction stormwater management.		
Hazards and	Continuing Best Practice HAZ-1: UC Berkeley will continue to implement the same		
Hazardous Materials	<ul> <li>(or equivalent) health and safety plans, programs, practices, and procedures related to the use, storage, disposal, or transportation of hazardous materials and wastes (including chemical, radioactive, and biohazardous materials and waste) during the LRDP planning horizon. These include, but are not limited to:</li> <li>Requirements for safe transportation of hazardous materials</li> <li>UC Berkeley Office of Environment, Health &amp; Safety training programs and oversight</li> <li>The Lagrand Communication Dragometers</li> </ul>		
	<ul> <li>The Hazard Communication Program</li> <li>Publication and promulgation of the Water Protection Policy, the drain disposal guidelines, the Wastewater Toxics Management Plan, and the Slug Control Plan</li> <li>Requirements that laboratories have Chemical Hygiene Plans and a chemical inventory database</li> <li>The Aboveground Storage Tank Spill Prevention Control and Countermeasure Plan and monitoring of underground storage tanks</li> <li>Implementation of the hazardous waste disposal program and policies</li> </ul>		

Environmental	
Issue Area	Continuing Best Practice
	<ul><li>The Green Labs Program</li><li>The Biosafety Program</li></ul>
	• The Medical Waste Management Program
	• The Laser Safety Program
	• The Radiation Safety Program
	The Drain Disposal Restrictions
	These programs may be subject to modification as regulations or UC Berkeley policies
	are developed or if the programs become obsolete through replacement by other
	programs that incorporate similar or more effective health and safety protection
	measures. However, any modifications must incorporate similar or more effective health
	and safety protection measures.
Hazards and	Continuing Best Practice HAZ-4: UC Berkeley will continue to perform hazardous
Hazardous	materials surveys prior to capital projects in existing UC Berkeley buildings. UC
Materials	Berkeley will continue to comply with federal, State, and local regulations governing the
	abatement and handling of hazardous building materials and each project will address
Hydrology and	this requirement in all construction. Continuing Best Practice HYD-1: During the plan check review process and
Water Quality	construction phase monitoring, UC Berkeley Office of Environment, Health & Safety
Water Quality	will review each development project to determine whether project runoff would
	increase pollutant loading and verify that the proposed project complies with all
	applicable requirements (e.g., Regional Water Quality Control Board and Campus
	Design Standards requirements) and best management practices (e.g., those described in
	the California Stormwater Quality Association's Construction BMP Handbook).
Hydrology and	Continuing Best Practice HYD-2: UC Berkeley will continue implementing an urban
Water Quality	runoff management program containing best management practices, as published in the
	Strawberry Creek Management Plan, and as developed through the Stormwater Permit
	Annual Reports completed for the Phase II municipal separate storm sewer system (MS4) permit. UC Berkeley will continue to comply with the MS4 stormwater
	permitting requirements by implementing construction and post-construction control
	measures and best management practices required by project-specific Stormwater
	Pollution Prevention Plans (SWPPPs) and by the Phase II MS4 permit to control
	pollution. SWPPPs will be prepared by the project contractor as required to prevent
	discharge of pollutants and to minimize sedimentation resulting from construction and
	the transport of soils by construction vehicles.
Hydrology and	Continuing Best Practice HYD-5: Landscaped areas of development sites will be
Water Quality	designed to absorb runoff from rooftops and walkways. Open or porous paving systems
	will be included in project designs, where feasible, to minimize impervious surfaces and absorb runoff.
Hydrology and	Continuing Best Practice HYD-7: UC Berkeley will continue to review each
Water Quality	development project, to determine whether rainwater infiltration to groundwater is
Contract Quantity	affected. If it is determined that existing infiltration rates would be adversely affected,
	UC Berkeley will design and implement the necessary improvements to retain and
	infiltrate stormwater. Such improvements could include retention basins to collect and
	retain runoff, grassy swales, infiltration galleries, planter boxes, permeable pavement, or

Continuing Best Practice
ethods. The goal of the improvement should be to ensure that there is in the amount of water recharged to groundwater that serves as ishment to Strawberry Creek. The improvement should maintain the and times of concentration from any given site at pre-development
<b>Practice HYD-13:</b> UC Berkeley will continue to manage runoff into ms such that the aggregate effect of projects implemented pursuant to no net increase in runoff over existing conditions.
<b>Practice LU-1:</b> New projects in the Campus Park will, as a general he Physical Design Framework. The Physical Design Framework provisions to ensure projects at the city interface consider the transition ity.
<b>Practice NOI-1:</b> Mechanical equipment selection and building design used, as appropriate, so that noise levels from future building not exceed the City of Berkeley Noise Ordinance limits for or residential zones as measured on any commercial or residential ea surrounding a project proposed to implement the LRDP. Controls rated to attain this outcome include selection of quiet equipment, sound ns, sound attenuator packages for cooling towers and emergency tical screen walls, and equipment enclosures.
<b>Practice NOI-2:</b> UC Berkeley will require the following measures for rojects: tivities will be limited to a schedule that minimizes disruption to uses project site as much as possible. Construction outside the Campus Park within the allowable construction hours designated in the noise local jurisdiction to the full feasible extent, and exceptions will be here necessary. As feasible, construction equipment will be required to atrolled. Potential noise sources will be reduced where feasible by selection of t (e.g., gas or electric equipment instead of diesel powered, low noise as concrete mixing and equipment repair will be performed off-site e. Prior to the start of construction activities, a sign will be posted at the job site, clearly visible to the public, that includes contact information s authorized representative in the event of a noise or vibration authorized contractor's representative receives a complaint, they will appropriate corrective action, and report the action to UC Berkeley. e active construction period and to the extent feasible, the use of noise-si, including horns, whistles, alarms, and bells, will be for safety sonly. The construction manager will use smart back-up alarms, which

Environmental	
Environmental Issue Area	Continuing Best Practice
1554011104	requirements and laws.
	For projects requiring pile driving:
	• With approval of the project structural engineer, pile holes will be pre-drilled to
	<ul><li>minimize the number of impacts necessary to seat the pile.</li><li>Pile driving will be scheduled to have the least impact on nearby sensitive receptors.</li></ul>
	• 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.
Transportation	Continuing Best Practice 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.
Transportation	Continuing Best Practice TRAN-5: UC Berkeley will require contractors working on
	major new construction or major renovation projects to develop and implement a
	Construction Traffic Management Plan that reduces construction-period impacts on
	circulation and parking within the vicinity of the project site. The Construction Traffic
	Management Plan will address job-site access, vehicle circulation, bicycle and
	pedestrian safety, and be coordinated with the City of Berkeley Public Works Department when projects require temporary modifications to city streets.
Transportation	Continuing Best Practice TRAN-6: For each construction project, UC Berkeley will
mansportation	require the prime contractor to prepare a Construction Traffic Management Plan which
	will include the following elements:
	• Proposed truck routes to be used, consistent with the City truck route map.
	• Construction hours, including limits on the number of truck trips during the morning
	(AM) and evening (PM) peak traffic periods (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.), if
	conditions demonstrate the need.
	<ul> <li>Proposed employee parking plan (number of spaces and planned locations).</li> <li>Proposed construction equipment and materials staging areas, demonstrating minimal</li> </ul>
	conflicts with circulation patterns.
	• Expected traffic detours needed, planned duration of each, and traffic control plans for
	each.
	• Identifying bicycle and pedestrian detours and safety plan, including solutions to
	address impacts to accessible routes.
Transportation	<b>Continuing Best Practice TRAN-7:</b> UC Berkeley will manage project schedules to
	minimize the overlap of excavation or other heavy truck activity periods that have the potential to combine impacts on traffic loads and street system capacity to the extent
	potential to combine impacts on traffic loads and street system capacity, to the extent feasible.
Utilities and	<b>Continuing Best Practice USS-1:</b> For development that increases water demand, UC
Service	Berkeley will continue to evaluate the size of existing distribution lines as well as

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Environmental	Constitution - Don't Deve stice
Issue Area	Continuing Best Practice
Systems	pressure of the specific feed affected by development on a project-by-project basis, and
	necessary improvements will be incorporated into the scope of work for each project to
	maintain current service and performance levels. The design of the water distribution
	system, including fire flow, for new buildings will be coordinated among UC Berkeley,
	the East Bay Municipal Utility District, and the City of Berkeley Public Works
Utilities and	Department and Fire Department.
Service	<b>Continuing Best Practice USS-3:</b> UC Berkeley will continue to incorporate specific
	water conservation measures into project design to reduce water consumption and
Systems	wastewater generation. This could include the use of special air-flow aerators, water-
	saving shower heads, flush cycle reducers, low-volume toilets, weather-based or
	evapotranspiration irrigation controllers, drip irrigation systems, and the use of drought
	resistant plantings in landscaped areas, and collaboration with the East Bay Municipal
Utilities and	Utility District to explore suitable uses of recycled water.
	<b>Continuing Best Practice USS-4:</b> UC Berkeley will analyze water and sewer systems
Service	on a project-by-project basis to determine specific capacity considerations for both UC
Systems	Berkeley systems and off-site municipal systems in the planning of any project proposed under the LRDP.
Utilities and	Continuing Best Practice USS-6: UC Berkeley will continue to implement the Zero
Service	Waste requirements of the UC Sustainability Policy designed to reduce the total quantity
Systems	of campus solid waste that is disposed of in landfills.
Utilities and	Continuing Best Practice USS-7: In accordance with the CalGreen Code, and as
Service	required for Leadership in Energy and Environmental Design certification, contractors
Systems	working for UC Berkeley will be required under their contracts to report their solid
	waste diversion according to UC Berkeley's waste management reporting requirements.
Wildfire	Continuing Best Practice 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.

# 3. Record of Proceedings

Various documents and other materials constitute the record of proceedings upon which the University bases its findings and decision contained herein. Because of the complexity of the issues addressed in connection with the review of the Project, these documents and materials are located in various offices of UC Berkeley; the University of California, Berkeley Capital Strategies' Physical and Environmental Planning office; and/or offices of consultants retained by the University to assist with the development and analysis of the Project. The custodian for these documents and materials is the University of California, Berkeley Capital Strategies' Physical office, located at 300 A&E Building, Berkeley, CA 94720-1382.

### III. <u>APPROVALS</u>

The University hereby takes the following actions:

- A. Adopt the CEQA Findings for the Bechtel Engineering Center Renovation and Addition Project having considered the UC Berkeley 2021 Long Range Development Plan Environmental Impact Report (2021 LRDP EIR) and Addendum No. 2 to the 2021 LRDP EIR for the Bechtel Engineering Center Renovation and Addition Project.
- **B.** Make a condition of approval, the implementation of applicable mitigation measures and continuing best practices within the responsibility and jurisdiction of UC Berkeley as identified in the Mitigation Monitoring and Reporting Program adopted in connection with the 2021 LRDP EIR
- C. Approve the design of the Bechtel Engineering Center Renovation and Addition Project, UC Berkeley, based on the information contained herein.