Draft Tiered Initial Study Checklist and Mitigated Negative Declaration for the

Demolition of Building 10 and the Construction and Operation of the User Support Building

at

Ernest Orlando Lawrence Berkeley National Laboratory

University of California

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Demolition of Building 10
Construction and Operation of the User Support Building

Draft Initial Study/Mitigated Negative Declaration

Project Description

The U.S. Department of Energy (DOE), Lawrence Berkeley National Laboratory (LBNL) proposes to construct a 3-story, 30,000 gross square foot (gsf) Users Support Building (USB) composed of assembly space, support laboratories, and offices. The proposed project, located in Berkeley, California would be located near the center of the LBNL main hill site and accessible via Lawrence Road, immediately adjacent and connected to the northeast side of the ALS building. The USB would address a lack of available research space at the Advanced Light Source (ALS) building that has resulted from growth across all of LBNL's scientific programs. An existing 16,038 gsf structure, Building 10, which houses approximately 24 full-time LBNL staff would be demolished and removed to create space for the USB.

Within the USB, office/office support space would account for 10,005 net square feet (nsf) and Lab/Lab Support would account for 7,411 nsf. The USB would accommodate approximately 85 occupants at peak capacity consisting of permanent staff, short-term visitors, postdoctoral fellows, and graduate and undergraduate students. LBNL estimates that approximately 15 full-time staff would work in the USB and the remaining 70 people would consist of students, postdoctoral fellows, and visitors. The full-time employees already work on the LBNL campus and would be transferred to the USB from other lab facilities. Similarly, LBNL expects that the approximately 70 visitors that would occupy the USB at peak capacity already visit LBNL for professional/research purposes.

The proposed project would fall within the existing provisions of the lease between the University and DOE. The lease is governed under the existing contract between the Regents and DOE for the operation and management of LBNL.

Project Objectives and Characteristics

The proposed USB would support the research mission of the University of California by providing consolidated state-of-the-art facilities for scientific, engineering, and technological research. The USB would provide facilities for the precision component assembly of experimental equipment, two-story beamline equipment staging, a potential figure beamline extension from the ALS building, chemical and biological prep laboratories, chemical storage, conference rooms, and office space.

The USB would be directly adjacent to the ALS for the direct transport of large, heavy, and sensitive equipment. The first floors of both buildings would be aligned and the USB would be connected to the ALS building on the northeast side. An open area between both buildings would be located on the first floor of each building in order to extend the staging area of the ALS building into the USB.

The laboratories, assembly, and staging space would be located on the first floor. The second floor would be dedicated primarily to office functions for the ALS staff associated with the Mechanical and Control Systems Groups, while the third floor would be dedicated entirely to offices for users who typically reside in the building from six months to a few years.

Common spaces would consist of conference rooms, a lobby with a recessed wall display area, restrooms, hallways, interaction lounges, and office support areas. The core space includes mechanical, electrical, and telecommunications equipment rooms, chases, elevators, and stairs.

Environmental Analysis

As a tiered document, the Initial Study/Mitigated Negative Declaration for the project relies in part on the 1987 LRDP EIR, as amended, for: (1) a discussion of general background and setting information for environmental topic areas; (2) overall growth-related issues; and (3) issues that were evaluated in sufficient detail in the 1987 LRDP EIR, as amended, for which there are no significant new information or changes in circumstances that would require further analysis. The Tiered Initial Study/Mitigated Negative Declaration analyzes the potential impacts of the project and the adequacy of the existing environmental analysis in the 1987 LRDP EIR, as amended, with regard to the following environmental topic areas: 1) aesthetics, 2) agricultural resources, 3) air quality, 4) biological resources, 5) cultural resources, 6) geology and soils, 7) hazards and hazardous materials, 8) hydrology and water quality, 9) land use and planning, 10) mineral resources, 11) noise, 12) population and housing, 13) public service, 14) recreation, 15) transportation and traffic, 16) utilities and service systems.

Based on the analysis contained in the Tiered Initial Study/Mitigated Negative Declaration, it was determined that for all topic areas, the project would not result in any significant impacts that cannot be mitigated to a less-than-significant level or are not sufficiently addressed by the 1987 LRDP EIR, as amended. LBNL found that the project could result in nine new potentially significant environmental impacts that were not previously identified in the 1987 LRDP EIR, as amended, but 11 new project-specific mitigation measures included in the Tiered Initial Study would reduce these impacts to a level where no significant impact would occur. Based on this analysis, LBNL prepared a Mitigated Negative Declaration.

Impacts and Mitigation Measures

Air Quality

The project could significantly impact air quality during the demolition of Building 10 and the construction of the USB. The following project-specific mitigation measure identified in the IS/MND and hereby incorporated into the project, will reduce potential impacts to a less-than-significant level.

> **USB Mitigation Measure AIR-1:** Project contractors shall implement the following BAAQMD recommended measures during construction and demolition:

1. Pave or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.

2. When loading debris into trucks, use dust proof chutes to the maximum extent feasible.

3. Sweep daily (with water sweepers) all paved access roads; parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.

4. Hydroseed or apply (non-toxic) soil stabilizers to inactive disturbed areas (i.e. previously-graded areas that are inactive for 10 days or more).

5. Limit traffic speeds on any unpaved roads to 15 mph.

6. Replant vegetation in disturbed areas as quickly as possible.

7. Suspend demolition activities that cause visible dust plumes to extend beyond the work site.

8. Prohibit use of "dirty" equipment. Opacity is an indicator of exhaust particulate emissions from off-road diesel powered equipment. The project shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately.

9. The contractor shall install temporary electrical service to avoid the need for independently powered equipment (e.g. compressors).

10. Diesel equipment standing idle for more than two minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite.

11. Properly tune and maintain equipment for low emissions.

Geology, Soils and Seismicity

The project could result in significant impacts related to construction on expansive soils. The following project-specific mitigation measures, identified in the IS/MND and hereby incorporated into the project, would reduce potential impacts to a less-than-significant level.

USB Mitigation Measure GEO-1: The design of the USB structure shall be consistent with the 2001 California Building Code Geotechnical Parameters, as identified in Table 5 of the Geotechnical Report completed for the project.

USB Mitigation Measure GEO-2: The following measures shall be incorporated into the proposed project (1) use deepened foundation elements that extend below the depth of significant seasonal moisture changes, (2) overexcavate the upper expansive soils and replace

them with non-expansive fill, and/or (3) create a void between the expansive soils and overlying structurally-supported elements.

USB Mitigation Measure GEO-3: Prior to construction, the foundation contractors shall review the site conditions, as described in the Geotechnical Study and its appendices. During construction, the foundation and other applicable contractors shall implement recommended measures from Sections 5.05 and Chapter 6 of the Geotechnical Study.

Hazards and Hazardous Materials

The project could result in significant impacts related to emergency access during the demolition of Building 10 and the construction of the USB. The following project-specific mitigation measure, identified in the IS/MND and hereby incorporated into the project, will reduce potential impacts to a less-than-significant level.

USB Mitigation Measure HAZ-1: Project contractors shall be required to review and comply with the provisions the emergency egress plan throughout demolition and construction.

Noise

The project could result in significant noise impacts during the demolition of Building 10 and the construction of the USB. The following project-specific mitigation measure, identified in the IS/MND and hereby incorporated into the project, will reduce potential impacts to a less-than-significant level.

USB Mitigation Measure NOISE-1:

- Construction shall be limited to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and no construction should be permitted to occur on the weekends or holidays.
- Construction equipment and trucks shall use best available noise control devices to avoid unacceptable noise levels
- Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum sound levels generated by stationary equipment at affected properties will not exceed those listed in the following schedule:

Maximum sound levels for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	R-1, R-2 Residential (dBA)	**R-3 and Above Multi-Family Residential (dBA)**	**Commercial/ Industrial (dBA)**
Daily, 7:00 a.m. to 7:00 p.m.	60	65	70
Weekends, 9:00 a.m.	50	55	60

to 8:00 p.m. and legal holidays

Traffic and Transportation

The project could result in significant impacts related to increased traffic volumes during the demolition of Building 10 and the construction of the USB. In addition, construction-period traffic associated with the project could result in significant cumulative impacts, when considered in combination with traffic generated by other projects in the vicinity. The following project-specific mitigation measures, identified in the IS/MND and hereby incorporated into the project, will reduce potential impacts to a less-than-significant level.

USB Mitigation Measure TRA-1: The prime contractor shall prepare a Construction Traffic Management Plan which will include the following elements:

- A provision that construction trips to and from the existing Building 10 or future USB site will be made outside the hours of 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m on all weekdays.
- Proposed truck routes to be used, consistent with the City of Berkeley truck route map.
- Proposed parking for contractors (number of spaces and planned locations).
- Proposed construction equipment and materials staging area, demonstrating minimal conflicts with circulation patterns.
- Expected traffic detours needed, planned duration of each, and traffic control plans for each.

Environmental Review Process

The IS/MND was prepared in accordance with CEQA and the University of California Procedures for implementation of CEQA. The Initial Study for the project, in accordance with Section 15168 of the CEQA guidelines, is tiered from the 1987 LRDP, as amended.

The draft IS/MND will circulated for a 30-day public review period between November 6, 2006 and December 8, 2006. During this time, agencies and members of the public will have the opportunity to comment on this Tiered Initial Study/Mitigated Negative Declaration.

Written comments should be directed to the attention of:

Jeff Philliber
LBNL Environmental Planning Coordinator
Lawrence Berkeley National Laboratory
One Cyclotron Road, MS 80-101
Berkeley, California 94720

Comments and Responses

Responses to substantive comments and copies of all comment letters received during the public review period will be provided in the Final Tiered Initial Study/Mitigated Negative Declaration.

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