ADDENDUM No. 1
UCSF Comprehensive Parnassus Heights Plan Environmental Impact Report
State Clearinghouse Number 2020010175

Proposed Minor Revision to the
PARNASSUS RESEARCH AND ACADEMIC BUILDING AND WEST CAMPUS SITE IMPROVEMENTS

September 5, 2023

This Addendum discusses a proposed minor revision to the Parnassus Research and Academic Building project and the associated West Campus site improvements, an element of the development under the UCSF Comprehensive Parnassus Heights Plan ("CPHP"), from their description in the CPHP Final Environmental Impact Report ("CPHP EIR"), in relation to the requirements of the California Environmental Quality Act ("CEQA").

A. Background

In January 2021, following certification of the CPHP EIR, the Regents of the University of California (the Regents) approved Amendment No. 7 to the UCSF 2014 Long Range Development Plan ("LRDP") to incorporate the CPHP into the 2014 LRDP.

The CPHP is a plan to meet projected space needs for critical programs in research, patient care, and education at the Parnassus Heights campus site while improving the functional and aesthetic design of the campus environment. The Plan also includes planning for development of much-needed on-campus housing. It establishes a long-term development framework for the revitalization of the physical environment at the Parnassus Heights campus site.

The CPHP includes an Initial Phase that primarily comprises: (1) Irving Street Arrival improvements, (2) Research and Academic Building (RAB), (3) New Hospital, and (4) initial Aldea Housing Densification; and (5) other Initial Phase minor improvements. This phase is anticipated to be completed by approximately 2030. Beyond the Initial Phase, the "Future Phase" encompasses the remaining development described in the CPHP envisioned for completion by the horizon year of 2050. The CPHP envisioned a larger development program for the campus site than previously included in the 2014 LRDP and analyzed in the 2014 LRDP EIR. Therefore, as part of incorporating the CPHP into the 2014 LRDP, the LRDP was amended to increase the future buildout space program at the Parnassus Heights campus site from the previously approved 3.61 million gross square feet (gsf) (excluding housing) by horizon year 2035 to approximately 5.05 million gsf (excluding housing) by horizon year 2050, a net increase of approximately 1.44 million gsf of building space.

The CPHP EIR included a program-level evaluation of the environmental impacts that could occur as a result of the buildout of the CPHP program and a project-level analysis of the environmental impacts of the Initial Phase projects, including the RAB project, other than the New Hospital which was analyzed at a program level. Following the certification of the CPHP EIR, a RAB Site Make Ready project was approved, and UCSF commenced site preparation work, including the demolition of UC Hall where the new building would be located. UCSF also commenced work on the detailed design of the planned building, which was renamed from RAB to "Parnassus Research and Academic Building" or "PRAB." The detailed design work included further evaluation of the space needs of the programs that would move into the new building. This analysis showed that approximately 53,000 gsf of additional space above the space previously

analyzed in the CPHP EIR was needed in the new building to accommodate the programs. As a result of the additional space needed and other design elements, such as stepping back of upper floors on the western façade to minimize aesthetic and wind impacts of the new building, the PRAB is now planned to be a 9-story research building, instead of an 8-story research building. Due to this change to the previously analyzed project as well as development of a detailed design of associated site improvements surrounding the PRAB, UCSF has prepared this Addendum that describes the changes to the PRAB and associated West Campus site improvements since the certification of the CPHP EIR and analyzes whether these changes would have the potential to result in new significant environmental impacts or a substantial increase in the severity of environmental impacts previously found to be significant in the CPHP EIR.

B. Revised Project

As described in the CPHP EIR, the RAB was planned as an approximately 270,000 gsf, 8-story building (up to 130 feet in height, excluding rooftop mechanical equipment) that would contain primarily research, academic, and education space for approximately 939 faculty and staff. With regard to other site improvements, the CPHP EIR stated that development of the RAB site could also include components of the CPHP intended to be constructed incrementally that are adjacent to the RAB site, such as a portion of the Promenade, the service/utility corridor to the south of the RAB site, and the first increment of the Fourth Avenue extension to the west of the RAB site.

The revised PRAB involves the construction of an approximately 323,000 gsf building that would be nine stories and about 143 feet in height, excluding rooftop mechanical equipment. The project would also include a new free-standing loading dock in the rear of the new building with a bridge connecting the building to the loading dock, and another bridge connection to the adjacent Clinical Sciences Building. The associated West Campus site improvements would include a pedestrian promenade to the south, retaining walls in the rear of the site, infrastructure improvements, and landscaping. The extension of Fourth Avenue is not included in the project. The project elements are presented in **Figure 1**. The planned building and all associated West Campus site improvements are hereinafter called the PRAB project.

The project site is bounded by Parnassus Avenue on the north side, Faculty Alumni House on the west, Clinical Sciences Building on the east, and the Campus Support Services (former Laboratory of Radiobiology building) to the south. The project site includes a significant upward slope from the corner of 4th Avenue and Parnassus Avenue that involves a complicated hillside condition along the south and east elevations of the PRAB project site. The elevation changes from Parnassus Avenue to the rear of the planned building range from approximately 30 to 65 feet.

B.1 Parnassus Research and Academic Building

As with the previously analyzed RAB, the proposed PRAB would accommodate the programs included in **Table 1**. The primary change is in the amount of research and education space included in the PRAB.

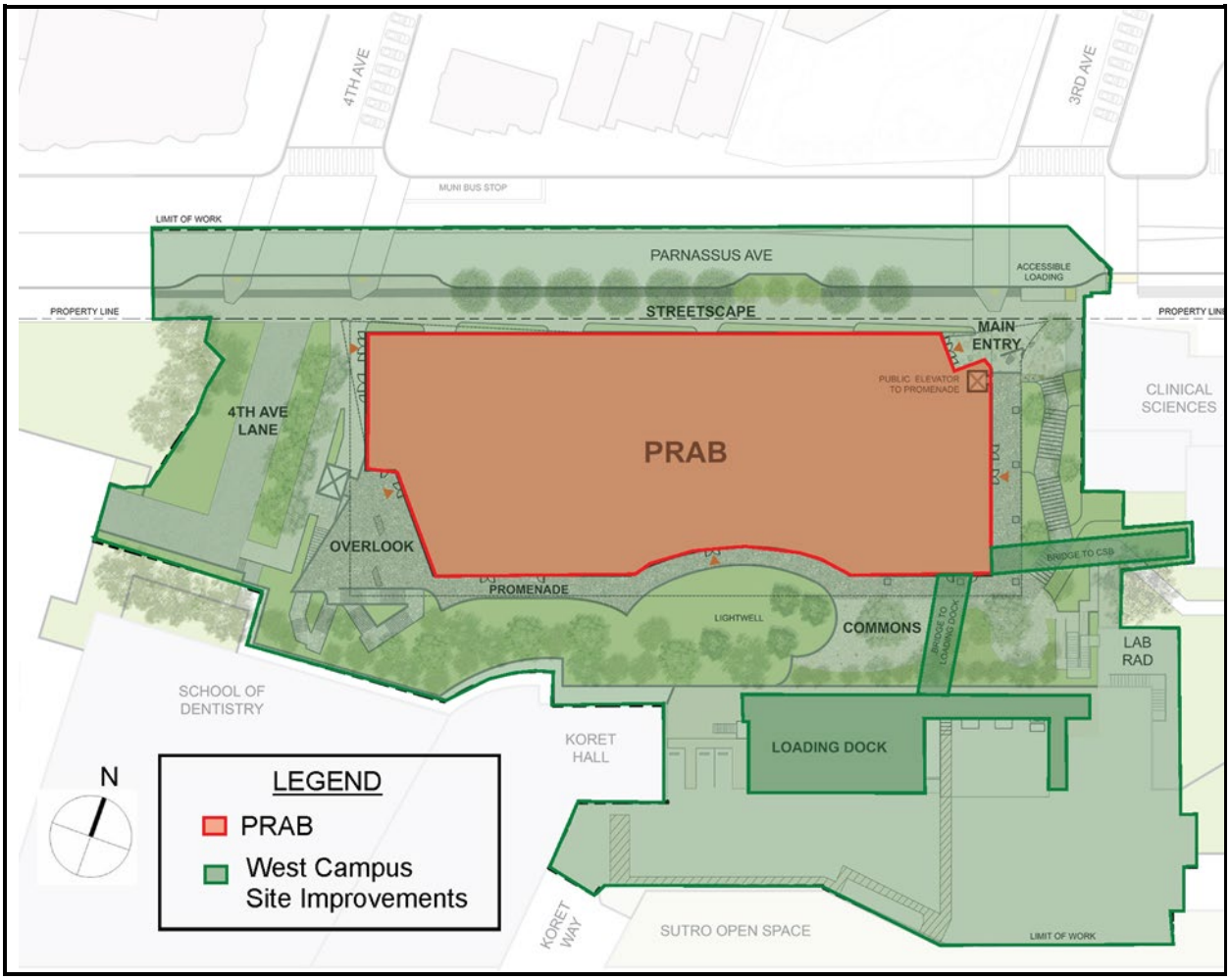

Figure 1: PRAB and West Campus Site Improvements

Table 1: Parnassus Research and Academic Building Program

Functional Space Type	ASF
Wet Lab Research and Support	147,100
Clinical Research	8,000
Education	9,000
School of Nursing	22,500
Retail/Community	8,100
Building Services	9,800
Total ASF	**204,500**
Total GSF	**323,000**

UCSF developed Parnassus Heights Design Guidelines for the campus site in 2020 and these guidelines serve as the foundation for PRAB's design approach. In developing the mass of the proposed building, UCSF considered the city scale, the urban scale and the human scale. The urban scale is expressed by connecting the public to the Promenade and Mount Sutro, as well as the building to the rest of the campus while the base is human-scaled for the pedestrian experience and activates the street experience through a textured and varied expression along Parnassus Avenue as well as landscaping. Additionally, the architectural massing is designed to reduce significant westerly and northwesterly winds, which are frequent and strong at the PRAB location. Stepping on the western façade of the building would interrupt the downdraft effect and reduce wind speeds experienced at the pedestrian level. The stepping at the western façade also reduces shadow impacts and creates a varying roof line against Mount Sutro, thus reducing the perception of the building mass.

The PRAB would accommodate a total population of about 1,130 UCSF faculty and staff, which is about 191 more persons than the population of 939 persons expected to occupy the RAB in the CPHP EIR.

B.2 Clinical Sciences Building – Renovation of Floor 7

Connectivity, including physical connections between buildings is a key principle of the CPHP. To accommodate this priority, approximately 2,700 ASF of space on the 7th floor of the Clinical Sciences Building (CSB) would be renovated to create a new collaboration and social space for the UCSF community and would be connected to the PRAB by a new bridge. Functions include meeting rooms, hotel workspace, and informal seating areas. The new bridge would span east to west connecting CSB Level 7 to PRAB Level 7.

B.3 West Campus Site Improvements

The associated West Campus site improvements are the implementation of the first phase of a campus-wide vision to advance utility, service, and pedestrian and vehicular connections across the Parnassus Heights campus site. These improvements would include the following:

Promenade

The Promenade would be a new primary east-west pedestrian artery, located to the south of the PRAB that would introduce new landscape design, including native plantings and provide stormwater retention capacity.

Loading Dock

A new freestanding loading dock would be constructed to the south of the PRAB. The loading dock would be sized to provide two loading spaces for trucks up to 34 feet in length with the associated program to support the service and maintenance of the PRAB and future development of the West Campus. A new service entrance bridge would be constructed to span north-south over the Promenade, connecting the loading dock to PRAB level 6.

Retaining Walls

New retaining walls would be constructed to stabilize the hillside adjacent to south of the building and to protect the PRAB and the Promenade. These retaining walls would eliminate the need for shear walls and heavier floor slabs and framing to be constructed as part of the PRAB, significantly improving the building's seismic performance and cost-efficiency.

Other Improvements

Improvements would be made throughout the site to accommodate existing and new paths of travel, including accessibility improvements and access for emergency vehicles. On the north side of the building, Parnassus Avenue would have landscaping designed to mitigate wind impacts at the pedestrian level and provide a visual connection to the campus.

The eastern side of the PRAB would be set back from the CSB, creating a break in the Parnassus Avenue street-wall and providing views to Mount Sutro to the south from 3rd Avenue and a pedestrian route to the upper campus and the Promenade. This would reinforce the CPHP idea to provide a "park-to-peak" connection from Golden Gate Park to Mount Sutro.

Sustainability

The project will comply with the University of California Policy on Sustainable Practices. The Sustainable Practices Policy establishes goals for green building, clean energy, transportation, climate protection, facilities operations, zero waste, procurement, foodservice, and water systems. A full range of sustainability practices for building design and operations are included in the budgeting, programming, and design effort for the project.

The PRAB is designed to include no natural gas service within the building. Electricity for the building would be delivered via the campus microgrid but would be purchased under the UC Office of the President clean energy program. Chilled water would be supplied from the Parnassus Central Utility Plant (PCUP). All other mechanical, electrical, and plumbing systems not supplied by the PCUP will be all-electric, except for diesel backup generators used for emergency power supply. To help minimize emissions as UCSF transitions away from fossil fuels, the PRAB will include energy conservation measures through the building massing, ventilation rates, daylighting, and a high performing envelope. The PRAB is targeting Leadership in Energy and Environmental Design (LEED™) Gold certification at a minimum. The PRAB

project has also established other sustainability goals that address air quality, site water management, materials and resources, biodiversity, and human health and comfort. Highlights of the PRAB's sustainability approach include:

- Healthy Materials: Low- emitting materials and Red List Free materials are being prioritized to ensure good air quality for building user groups. When possible, materials will be procured from manufacturers that integrate health-responsible practices.

- Glare Studies: The general orientation of the site is favorable for providing solar access to the PRAB, maximizing daylight harvesting opportunities while controlling heat gains. Where daylighting is utilized, building geometry, façade design, and control devices (other than window coverings such as shades or blinds) will be designed to minimize visual discomfort for building occupants due to glare. Multiple studies and simulations have been run for glare control.

- Bird Safe Design: Although the project site is a developed, high density urban site, Mount Sutro Open Space Reserve is located approximately 95 feet to the south of the PRAB site and it provides important habitat for many bird species. The southern façade of the PRAB will adhere to bird-safe collision deterrence practices with respect to glazing, screens, and lighting.

- Low Carbon Concrete: UCSF is exploring low carbon concrete options for the structure.

- Biophilic Design: Design will incorporate biophilic design elements, including natural light and improved air ventilation and natural materials and patterns.

Construction of the new building and site improvements for the west campus are scheduled to begin at the end of 2023 and continue into 2028.

C. Relationship to the CPHP and CPHP EIR

As noted above, the RAB is one of the four Initial Phase development projects included in the CPHP and one of the three Initial Phase development projects analyzed at a project level for its environmental impacts in the CPHP EIR. It is an element of the campus's Initial Phase growth through 2030, as well as a contributor to campus growth and development through 2050. The CPHP EIR analyzes the environmental impacts from the completion of Initial Phase projects through 2030 and from the buildout of the CPHP by 2050. The PRAB's effects on the CPHP building space program and campus population growth through 2030 and 2050 are discussed below.

C.1 Change in Building Space

As discussed above, at the time that the CPHP EIR was certified and LRDP Amendment No. 7 incorporating the CPHP was approved, the 2014 LRDP was amended to increase the future buildout space program at Parnassus Heights from the previously approved 3.61 million gsf (excluding housing) by horizon year 2035 to approximately 5.05 million gsf (excluding housing) by horizon year 2050, a net increase of approximately 1.44 million gsf.

The revised PRAB project would include the development of about 323,000 gsf of building space, which is approximately 53,000 gsf or about 20 percent more space than originally planned for the RAB project under the CPHP. However, this increase would not affect the space program for the campus site both

during the Initial Phase and at CPHP buildout because the approved New Hospital, including the related modifications in the Moffitt and Long Hospitals, would result in a smaller increase in building space than previously envisioned under the CPHP. Table 2 presents the changes in building space as a result of the Initial Phase projects. As the table shows, about 17,500 gsf less of building space would be built through 2030. Therefore, the change in the PRAB space program would not affect the analysis of the combined environmental effects of the Initial Phase projects through 2030, and also would not affect the analysis of the environmental effects of the CPHP buildout through 2050.

Furthermore, the assignment of about 53,000 gsf of clinical space from the hospital program to education and research space in the PRAB would not result in new or greater environmental impacts than analyzed in the CPHP EIR because in general, clinical and research/education spaces are comparable in terms of energy and utility demand and hazardous materials usage. Although a larger number of faculty and staff would be accommodated in about 53,000 gsf of research and educational space as compared to the same amount of clinical space, clinical space would likely generate a greater number of patients, visitors and delivery vehicle trips compared to the same amount of research and educational space. Therefore, environmental impacts that are related to the population associated with the additional space, such as transportation impacts, would be comparable.

Table 2: Changes in Building Space – Initial Phase Projects

Project	Building Space in CPHP EIR (gross square feet)	Building Space in Approved/Planned Project (gross square feet)	Change
RAB/PRAB	270,000	323,000	+ 53,000
New Hospital	955,000	884,500[a]	-70,500
Irving Street Arrival	25,000	25,000	0
Total Initial Phase Projects (excluding Aldea Housing Densification project)	1,250,000	1,232,500	-17,500

a. This building space includes 875,000 gsf for the New Hospital (approved by the UC Regents) and 9,500 gsf of additional space in Moffitt and Long Hospitals.

C.2 Change in Campus Site Population

The CPHP EIR estimated that there would be an increase of 3,597 faculty and staff in the Initial Phase under the CPHP and analyzed the environmental impacts from this population increase through 2030. The PRAB project would accommodate approximately 1,130 faculty and staff, which is about 191 more persons than the 939 persons previously expected to occupy the RAB project. Although some of the faculty and staff who would occupy the new building would be existing faculty and staff, if it is conservatively assumed that all of them are new to the campus site, the 1,130 faculty and staff associated with the PRAB project when combined with the 1,449 new faculty and staff due to the New Hospital project would result in a total of 2,579 new faculty and staff added to the campus under the Initial Phase projects (Irving Street Arrival project and the Aldea Housing densification project would not increase faculty, staff and students on the campus site). This number is well within the increase of 3,597 faculty

and staff projected for the Initial Phase of the CPHP and analyzed for its environmental impacts in the CPHP EIR. Therefore, the incremental increase in population associated with the PRAB project would not result in new significant or substantially more severe combined environmental impacts of the Initial Phase projects by 2030 or the CPHP buildout impacts in 2050 that are a result of an increase in campus site population, namely impacts on transportation, population and housing, public services, recreation, and utilities.

D. Addendum to the CPHP EIR

This Addendum was prepared to discuss the above-described changes to the RAB project that may affect the prior environmental analysis prepared for the CPHP EIR. CEQA Guidelines Section 15162 calls for the preparation of a subsequent EIR or Negative Declaration if certain conditions have been met. These conditions include:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise or reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;

    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

CEQA Guidelines Section 15163 sets forth the circumstances under which a project may warrant a supplemental (rather than a subsequent) EIR. Specifically, a lead agency shall prepare a supplement to an EIR if any of the conditions described in CEQA Guidelines Sections 15162 are found, and only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

UCSF has evaluated the PRAB project relative to these conditions, and has determined that, pursuant to CEQA Guidelines Sections 15162 and 15163, a subsequent EIR, Negative Declaration or supplemental EIR need not be prepared because:

a) The revised project would increase the amount of building space and population associated with the project, but the increase would not be substantial enough to result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. As discussed below, none of the conclusions of the impact analysis would change with this minor revision to the project.

b) Since the CPHP EIR was certified in January 2021, which is the most recent campus-wide EIR for the Parnassus Heights campus site, the following have occurred:

- UCSF developed the Integrated Center for Design and Construction (ICDC) below the Kalmanovitz Library.
- The Surge and Woods buildings were demolished.
- The Toland Hall Murals were removed from UC Hall and placed in storage until a permanent home is found.
- Demolition of UC Hall is in progress.
- The demolition of structures accessory to the Langley Porter Psychiatric Institute (LPPI) Building was completed; and demolition of LPPI is planned to commence late fall or early winter 2023.
- Sitework and infrastructure construction for the New Hospital at Parnassus Heights is in progress.
- Other residential and mixed developments in the vicinity have been proposed, completed, or are under construction.

Each of the above UCSF projects received environmental review prior to approval and implementation. All of the environmental impacts of these projects were analyzed and disclosed in the CPHP EIR or the 2014 LRDP EIR. Similarly, non-UCSF projects in the vicinity of the PRAB project have or will receive appropriate environmental review under the City's project approval process. These projects do not change the significance of impacts of the RAB as previously analyzed or the impacts of the PRAB project.

c) The project would not require new mitigation measures or result in mitigation measures that are considerably different from those set forth in the CPHP EIR and adopted by the Regents in January 2021. All of the CPHP mitigation measures that are applicable to the PRAB project are listed in **Appendix A**, **PRAB Project Mitigation Monitoring and Reporting Program**, in this Addendum.

The revised PRAB project would not alter any of the impact significance conclusions of the CPHP EIR analyses under any analysis topic area. Below are the environmental topic areas that warrant discussion:

D.1 Aesthetics, Wind and Shadow

The CPHP EIR analyzed aesthetics, wind and shadow impacts associated with the development of the RAB project on the site of UC Hall. The CPHP EIR concluded the following relative to the RAB project:

- Impact on a scenic vista: Less than significant
- Impact on scenic quality: Less than significant
- Impact on light and glare: Significant; less than significant with the implementation of CPHP Mitigation Measure AES-3, Minimize light and glare from new buildings
- Impact related to creating wind hazards in publicly accessible areas of substantial pedestrian use: Significant; Significant and unavoidable with the implementation of CPHP Mitigation Measure AES-4, Design new buildings to minimize wind impacts at pedestrian level
- Impact related to creation of substantial new shadow that could substantially affect the use of publicly accessible open spaces: Less than significant

As the analysis below shows, the revised PRAB would not change the impact significance conclusions of the CPHP EIR with respect to aesthetic, wind and shadow impacts.

Impact on Scenic Vistas

The CPHP EIR provides an analysis of changes in scenic vistas due to the CPHP, including the RAB project, as viewed from key viewpoints. As shown in the photographs of existing conditions and visual simulations of the Parnassus Heights campus site with the CPHP development, the PRAB would be visible in views of the campus site from Viewpoint 1 (Grand View Park) but would not be visible from the other publicly accessible viewpoints analyzed in the CPHP EIR. However, due to the intervening distance between Viewpoint 1 and the project site, the change in the height of the PRAB would not be noticeable. Other changes on the project site, including the West Campus site improvements, would not affect scenic vistas as they would also not be visible from the viewpoints analyzed in the CPHP EIR. The changes in the project would not alter the conclusions of the CPHP EIR with respect to the PRAB project's less-than-significant impact on scenic vistas.

Impact on Scenic Quality

The CPHP EIR analyzed the RAB project's impact on scenic quality by analyzing the proposed project relative to 2014 LRDP objectives and subobjectives and noted that of the five overarching 2014 LRDP objectives, "Objective 1. "Respond to the City and Community Context" contains three sub-objectives that relate to scenic quality. These include the following:

1B. Acknowledge and respond to local zoning and height and bulk limitations to the extent possible;

1C. Design new buildings to be sensitive to the surrounding neighborhood and landscape, taking into account use, scale, potential noise generation, and density; and

1D. Incorporate pedestrian-friendly urban design principles to relate campus buildings to surrounding streetscape and neighborhoods.

The PRAB project would be approximately 143 feet in height in an area of the city zoned for 130 feet. Therefore, the PRAB project would exceed height allowed under the Planning Code by about 13 feet, and hence would be slightly inconsistent with 2014 LRDP sub-objective 1B. The project would, however, be consistent with sub-objectives 1C and ID because the proposed uses of the building would not conflict with the surrounding neighborhood and the project would include the development of the adjacent Promenade that would promote east-west pedestrian mobility within this vicinity. Furthermore, in developing the mass of the proposed building, UCSF considered the three scales of human perception: the city scale, the urban scale and the human scale. The urban scale is addressed by connecting the public to the Promenade and Mount Sutro, as well as the building to the rest of campus while the base of the building is human-scaled for the pedestrian experience and activates the street experience through a textured and varied expression along Parnassus Avenue. Additionally, the architectural massing is designed with stepping on the western façade. The stepping on the western façade also reduces shadow impacts and creates a varying roof line against Mount Sutro, thus reducing the perception of the building mass. Furthermore, miscellaneous ornamental trees removed during demolition and construction will be replaced with landscaping installed throughout the site, including along Parnassus Avenue as part of the West Campus site improvements. Therefore, the PRAB project would not conflict with applicable 2014 LRDP objectives and sub-objectives governing scenic quality. The impact of the project would remain less than significant.

Impact related to Light and Glare

The addition of the 9th floor to the planned building would not substantially increase the light and glare associated with the PRAB project. As with the RAB project, the PRAB and West Campus site improvements would also comply with and implement CPHP Mitigation Measure AES-3 to minimize light and glare impacts. As with the RAB project, with mitigation, the resultant impact of the PRAB project would also be less than significant.

Wind Impact

The CPHP EIR provided an analysis of the wind impact of the RAB project based on a massing diagram of the project, and noted that the project would, in combination with other CPHP development to the south, increase wind speeds on Parnassus Avenue and on the pedestrian promenade south of the RAB such that they would exceed the pedestrian comfort criterion. However, in the absence of wind tunnel testing based on a specific building design, it could not be concluded that wind effects would be reduced to a less than significant level. Therefore, this impact would be significant and unavoidable. The CPHP EIR set forth CPHP Mitigation Measure AES-4 which requires that prior to the approval of the design of an individual building that is more than 80 feet high at one or more building façade, wind-tunnel testing of the specific design of the building shall be conducted to determine whether the building would result in new exceedance(s) of the City of San Francisco's 26-mph pedestrian wind hazard criterion. If the wind tunnel analysis determines that the building design or buildout conditions would increase the hours of wind hazard exceedance or the number of test points subject to hazardous winds, compared to then-existing conditions, UCSF shall work with the wind consultant to identify feasible mitigation strategies, including design changes (e.g., setbacks, rounded/chamfered building corners,

stepped façades, etc.), to eliminate or reduce wind hazards to the maximum feasible extent. If UCSF finds that these changes or other wind speed reduction strategies are not feasible as they would unduly restrict the proposed building's space program, result in operational inefficiencies, and/or substantially higher costs, the building(s) may nonetheless be approved provided that the project incorporates wind speed reduction strategies to the maximum feasible extent, as determined by UCSF in consultation with the wind consultant.

None of the West Campus site improvements would affect wind patterns analyzed in the CPHP EIR. The PRAB has been designed to minimize wind hazards in the pedestrian areas surrounding the planned building. As noted in the project description, the architectural massing has been designed to reduce significant westerly and northwesterly winds, which are frequent and strong at the PRAB location. Stepping on the western façade of the building would interrupt the downdraft effect and reduce wind speeds experienced at the pedestrian level. Further, landscaping would be installed on the north side of the building along Parnassus Avenue to further reduce the wind speeds at the pedestrian level. Furthermore, in compliance with CPHP Mitigation Measure AES-4, a wind tunnel test was conducted utilizing the proposed design of the building. The change in wind speeds due to the project was analyzed at 45 test locations around the project site. The analysis showed that PRAB would increase the number of locations where the hazard criterion would be exceeded from 5 locations at the present time (with UC Hall in place) to 10 locations with the PRAB. With the exception of one location on the north side of Parnassus Avenue across from the project site, all new exceedances would be on or directly adjacent to the campus site. The number of exceedance locations would remain 10 under cumulative 2030 conditions but would decrease to 7 under cumulative 2050 conditions. With respect to the increase in the hours of wind hazard exceedance, the total number of hours would increase from 10 hours to 30 hours with the project and decrease to 29 under cumulative 2030 conditions and to 23 hours under 2050 conditions (CPP 2023a).[1] Therefore, the PRAB project would result in a significant wind hazard impact. In compliance with CPHP Mitigation Measure AES-4, UCSF worked with the wind consultant to analyze the effectiveness of additional measures that could be incorporated into project design to eliminate or reduce wind hazards to the maximum extent feasible. Wind control strategies that were analyzed included placement of street trees along the building's northern façade along Parnassus Avenue, incorporation of landscaping within the 4th Avenue entry plaza, installation of a wind screen, and the placement of a canopy at the northwestern corner of the building. These wind control features were added to the building model and another wind tunnel test was performed to assess the effectiveness of these features. The wind tunnel test was run using a number of different combinations of these features. The modeling revealed that incorporation of street trees, landscaping, and the wind screen at the northwest corner of the building would be effective in reducing the number of locations of exceedances from 10 under the project as designed to 8 under the project with additional wind control strategies. The modeling showed that incorporation of the canopy at the northwest corner would not help eliminate any exceedance (CPP 2023b).[2] Given the reduction in the number of exceedance locations, street trees, landscaping, and the wind screen have been incorporated into the PRAB. However, despite the incorporation of these additional design features, all of the project-generated exceedances would not be eliminated, and the impact would not be mitigated to a less

[1] CPP 2023a. Pedestrian Wind Assessment. Parnassus Research and Academic Building. Prepared for UCSF. June 27, 2023.

[2] CPP 2023b. Pedestrian Wind Assessment. Parnassus Research and Academic Building. Prepared for UCSF. August 29, 2023.

than significant level. Consistent with the conclusion in the CPHP EIR, the wind impact of the PRAB would remain significant and unavoidable with implementation of CPHP Mitigation Measure AES-4.

Shadow Impact

None of the West Campus site improvements would result in shadows that would affect parks or schools analyzed in the CPHP EIR. Compared to the 8-story RAB, the PRAB would be a 9-story building. The change in project elevation was analyzed by Prevision Design to determine whether it would substantially increase net new shadows generated by the building, both at a project level and under the cumulative 2030 conditions that included other planned development on the campus through 2030. The analysis by Prevision Design showed that the PRAB would not change the net new shadow on any of the parks and schools analyzed in the CPHP EIR, except Independence High School. Compared to the RAB which was projected to cast maximum shadow on the outdoor space at Independence High School on March 1st and October 11, the PRAB would cast maximum shadow on the high school outdoor space on March 15th and September 27. On the days of maximum shadow of the RAB project, 1.7 to 27% of the outdoor space was projected to be in shadow, whereas on the same days the PRAB would cast shadow on 1.7 to 29% of the outdoor space. On the days of maximum shadow of the PRAB project, while the RAB was projected to cast shadows on 13.5% of the outdoor space, the PRAB would affect 23.8 to 34% of the outdoor space. Thus, the PRAB would increase the extent of shadow on the high school outdoor space. Prevision Design's analysis of the combined effect of Initial Phase development, including the PRAB project, showed that with the PRAB, there would be a small increase in total annual net new shadow load (which would change from 0.08% to 0.18%) and the annual days of project shadow on the outdoor space at Independence High School would increase from 138 to 166 days. While there would be an increase in the number of days and amount of shadow, as before with the RAB project, project shadows would affect the high school outdoor space around 8 a.m. and move off the outdoor space in about 15 to 30 minutes (Prevision Design 2023).[3]

Because classes at the high school begin at 8:00 a.m. the majority of the students would be expected to be indoors, with only a small number of students outdoors utilizing the outdoor space for physical education during the time of PRAB shadows, and during the remainder of the day, there would be no effect. Similarly, on the weekend, especially early in the morning when the PRAB shadows would occur, usage of the high school outdoor space is expected to be less and there would be ample time throughout the rest of the day for the users to enjoy sunlight. Therefore, as with the previously analyzed RAB project, the PRAB project's impact on the Independence High School outdoor areas would remain less than significant.

Based on the above, the PRAB project would not result in any new or more substantially severe significant impacts on aesthetics, wind or shadow than previously analyzed and disclosed in the CPHP EIR. No new mitigation is required.

[3] Prevision Design. 2023. Email communication from Adam Phillips, Prevision Design to Diane Wong, UCSF, dated May 16, 2023.

D.2 Air Quality

The CPHP EIR analyzed air quality impacts associated with Parnassus Heights campus growth and development, including air quality impacts associated with the development of the RAB project on the former site of UC Hall. The CPHP EIR concluded the following relative to the RAB project:

- Impact due to criteria air pollutant emissions during construction activities: Significant (due to fugitive dust emissions); less than significant with the implementation of CPHP Mitigation Measure AIR-1a, Clean Construction Equipment for CPHP projects and CPHP Mitigation Measure AIR-1b, Best Management Practices for Controlling Particulate Emissions during Construction

- Impact due to toxic Air Contaminant (TAC) emissions during construction activities: Significant; less than significant with the implementation of CPHP Mitigation Measure AIR-1a

- Impact due to criteria air pollutant emissions during project operations: Less than significant

- Impact due to TAC emissions during project operations: Less than significant

- Impact due to conflict with or obstruction of the Clean Air Plan: Significant; less than significant with CPHP Mitigation Measure AIR-5

Impact due to Construction-Phase Criteria Pollutants

The CPHP EIR estimated and reported the average daily and annual emissions of criteria pollutants from the overlapping construction of the Initial Phase projects, including the RAB project, and found that the projects would not result in daily or annual emissions that would exceed BAAQMD thresholds. With regard to fugitive dust emissions, the impact was found to be significant but that it would be reduced to a less than significant level with mitigation. Construction-phase emissions are proportional to the amount of building space that is constructed and the area that is disturbed during construction. Regarding building space, while the PRAB would involve the construction of about 53,000 gsf of additional space (a 20 percent increase over the space included in the RAB), as noted in **Section B, Revised Project**, the New Hospital building would be smaller than previously analyzed, and the total amount of building space constructed under the Initial Phase projects would be less than before. Therefore, criteria pollutant emissions of Initial Phase projects would not be greater than previously disclosed and in fact might be lower. The PRAB individually would also not result in construction-phase criteria pollutant emissions that would exceed thresholds. As shown in the CPHP EIR Appendix AIR, construction of the RAB would generate per day less than 8 lbs. of ROG, 18 lbs. of NOX, and 1 lbs. of PM10 and PM2.5 during the years of building construction. With the revised project, construction would extend by one additional year and this level of daily emissions would occur over the period of one more year. However, all of these numbers are substantially below the BAAQMD thresholds. Furthermore, as with the RAB, the PRAB will include the implementation of CPHP Mitigation Measure AIR-1a which would further reduce criteria pollutant emissions. With respect to the 2.65 acres of land area to be disturbed with the PRAB and West Side site improvements, it is approximately the same acreage as analyzed before in the CPHP EIR. Therefore, construction-phase fugitive dust emissions would be approximately the same as before,

and as with the RAB, the impact of construction-phase fugitive dust emissions due to the PRAB would be considered significant but would be reduced to a less than significant level with CPHP Mitigation Measure AIR-1b.

Impact due to Construction-Phase TAC Emissions

The CPHP EIR included an analysis of the human health risk impacts from toxic air contaminant (TAC) emissions during the overlapping construction of the Initial Phase projects. The analysis revealed that construction TAC emissions from each of the Initial Phase projects other than the initial Aldea Housing Densification project would result in a cancer risk at the maximum exposed off-site residential receptor that would exceed the 10 in one-million excess cancer risk threshold. Because construction-phase TAC emissions are generally proportional to the amount of building space under construction, and because the increase in building space included in the PRAB would be offset by the decrease in building space included in the New Hospital, the cancer risk impact of the Initial Phase projects would not increase above the previous estimates. However, as previously concluded, the impact would be significant and CPHP Mitigation Measure AIR-1a would be implemented in conjunction with all Initial Phase projects, including the PRAB. The CPHP EIR also concluded that construction-phase TAC emissions from the individual RAB project would also result in a cancer risk at the maximum exposed residential receptors off-campus, on-campus, and a daycare receptor that would exceed the 10 in one-million excess cancer risk threshold. The construction of additional building space for the PRAB and the West Campus site improvements would have the effect of incrementally increasing this impact on the affected receptors. However, the PRAB project would implement CPHP Mitigation Measure AIR-1a which would reduce the health risk to a level substantially below the applicable threshold of significance, and no further mitigation would be required. Therefore, the PRAB project would not result in a new or substantially more severe significant impact.

Impact due to Operational Criteria Pollutants

The CPHP EIR included an analysis of operational air pollutant emissions from the combined operations of the Initial Phase projects, including the RAB, which concluded based on modeled emissions that the Initial Phase projects would not result in average daily emissions of criteria pollutants that would exceed applicable BAAQMD thresholds. The effect of the RAB individually was also found to be less than significant. Operational emissions of a project are generally proportional to the amount of building space and the size of population occupying a new building and associated vehicle trips. As noted above, while the PRAB would involve more building space than before and a somewhat greater population, there would be a more than proportional decrease in the space and population associated with the New Hospital compared to the previous estimates used in the CPHP EIR for impact analysis. Therefore, the operational emissions from the Initial Phase projects would not be greater than reported in the CPHP EIR, and the impact would remain less than significant. With regard to operational emissions of the PRAB individually, impacts in this regard would also remain less than significant because if ROG, NOX, PM10 and PM2.5 estimates reported in Table 4.2-10 in the CPHP EIR were to be increased by 20 percent to account for the additional building space included in the PRAB, these emissions would not increase to levels that would exceed the BAAQMD thresholds of significance for criteria pollutant emissions impacts. As such, the PRAB's operational emissions impact would remain less than significant.

Impact due to TAC Emissions from Project Operations

The CPHP EIR estimated and reported the potential health effects from TAC emissions associated with 40 fume hoods in the RAB laboratories, a 1 MW emergency diesel generator for the building, and increased combustion of natural gas in the Parnassus Central Utility Plant (PCUP) to serve the RAB energy demand. The cancer risk for a 30-year lifetime exposure from operation of the RAB project sources was estimated to be 0.26 per million, which is substantially below the BAAQMD threshold of significance of 10 in one-million cancer risk, and the impact was found to be less than significant. The non-cancer health risk was also found to be less than significant. The PRAB would include a smaller number of fume hoods (34 fume hoods) and three emergency generators, each 600 kW in size. The West Campus site improvements would not include a stationary source of TAC emissions. More natural gas combustion would occur in the PCUP to serve the PRAB energy demand due to increased space in the planned building. However, because the space increase in the PRAB is relatively small the increase in natural gas combustion and related TAC emissions would not be large. Similarly, although PRAB would include three emergency generators with a collective capacity of 1.8 MW, which is greater than the 1 MW generator included in the RAB project, the testing emissions from the generators would not be substantially greater than calculated before. Both these changes to the project would not result in a substantial increase in TAC emissions such that the previously estimated cancer risk of 0.26 per million would increase to a level that would exceed 10 in one-million significance threshold or that the non-cancer health risk would increase to exceed the applicable threshold. The impact due to TAC emissions from PRAB operations would remain less than significant.

Impact due to conflict with or obstruction of the Clean Air Plan

The CPHP EIR noted that, for most part, the Initial Phase projects would be consistent with the relevant control measures of the 2017 Clean Air Plan. However, there is one control measure in the Clean Air Plan to address urban heat island effect with which the Initial Phase projects as proposed would not be consistent, and therefore the impact would be considered potentially significant. However, with the implementation of CPHP Mitigation Measure AIR-5, the impact would be less than significant.

The PRAB project will comply with CPHP Mitigation Measure AIR-5 and will include cool roof and pavement design elements. The project is being designed to receive LEED Heat Island Reduction credits and will, therefore, include the use of roofing materials that qualify as cool roofing under the LEED program, and will also include site paving materials and landscaping that also helps achieve the required LEED credits. Therefore, with mitigation, the PRAB would not conflict with the 2017 Clean Air Plan. The impact would be less than significant.

Based on the above, the PRAB project would not result in any new or substantially more severe significant impacts on air quality than previously analyzed and disclosed in the CPHP EIR. No new mitigation is required.

D.3 Biological Resources

The CPHP EIR analyzed impacts on biological resources from the implementation of the CPHP, including the construction of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Impact on special-status species: Significant; Less than significant with CPHP Mitigation Measures BIO-1b, -1c, -1d, and -1e, measures to address nesting birds, roosting bats and overwintering monarch butterflies

- Impact on movement of native resident or migratory wildlife species: Significant; Less than significant with CPHP Mitigation Measures BIO-2a and -2b, measures to address bird strikes

- Impact related with conflict with local plans/policies for the protection of biological resources: Less than significant

As discussed in the CPHP EIR, the construction of the RAB project would have the potential to affect nesting birds, roosting bats, and overwintering monarch butterflies. As the PRAB project, including the retaining walls to the south of the proposed building and the free-standing loading dock, would disturb the same project site, its impacts on nesting birds, bats, and monarch butterflies would be the same as previously disclosed and would also be reduced to a less than significant level with the implementation of CPHP Mitigation Measures BIO-1b, -1c, 1d, and 1e. As with the RAB, the PRAB would involve night lighting in the vicinity of the Mount Sutro Open Space Reserve which may impact migratory birds on the Pacific Flyway and would also pose an increased hazard of bird strikes from reflective glass or operational lighting. As discussed in **Section B, Revised Project**, the PRAB project has been designed to comply with CPHP Mitigation Measures BIO-2a and -2b, and the project will adhere to bird-safe collision deterrence practices with respect to glazing, screens, and lighting. However, UCSF retained H.T. Harvey to conduct an in-depth evaluation of the proposed PRAB building design, including the proposed glazing and other building features; site landscaping; and interior and exterior lighting, to determine whether the PRAB as currently designed would fully comply with CPHP Mitigation Measures BIO-2a and -2b and the impact on birds due to building design, glazing, and lighting would be less than significant. The PRAB avian collision risk assessment prepared by H.T. Harvey concluded that the southern façade of the proposed building, which faces the Mount Sutro Open Space Reserve, would pose the greatest threat to birds and that bird-safe glazing treatment such as fritting would be needed on that façade as well as on the bridge connecting the PRAB to the CSB to reduce the risk of avian collisions (i.e., bird strikes). The other façades would not pose a substantial threat to birds in flight because along those façades, the PRAB would be surrounded by other existing buildings and would not reflect vegetation. As a result, the PRAB would be visible to birds as another structure. The assessment noted that no treatment of the bridge connecting the loading dock to the PRAB would be needed because the bridge would not be enclosed with glass. The assessment also found that some of the outdoor light fixtures would result in uplighting that could disorient birds at nighttime. The assessment included recommendations to either place timers on those fixtures that would switch the lights off from midnight to sunrise or replace them with light fixtures that do not produce uplighting. H.T. Harvey noted that with the incorporation of the recommended changes, the PRAB would be fully compliant with CPHP Mitigation Measures BIO-2a and -2b.[4] Thus, with the implementation of the recommendations in the H.T. Harvey assessment, the impact related to bird strikes would be less than significant. As with the RAB project, UCSF will avoid removal of trees for the PRAB and West Campus site improvements that would be considered significant or protected to the maximum extent feasible. Any trees within the public right-of-way that may be removed during the course of off-site construction would

[4] H.T. Harvey. 2023. University of California, San Francisco Parnassus Research & Academic Building – Avian Collision Risk Assessment (HTH #4735-01). Letter report dated August 23, 2023.

conform to the City of San Francisco ordinance governing tree protection. Thus, the impact related to protected trees would remain less than significant.

In summary, the PRAB project would not result in any new or substantially more severe significant impacts on biological resources than previously analyzed and disclosed in the CPHP EIR. No new mitigation is required.

D.4 Cultural Resources

The CPHP EIR analyzed impacts on cultural resources from the implementation of the CPHP, including the construction of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Impact on historical resources: Significant; Significant and unavoidable with CPHP Mitigation Measures CUL-1a through CUL-1e, measures to address demolition of UC Hall and removal of Zakheim Murals

- Impact on archaeological resources: Significant; Less than significant with CPHP Mitigation Measure 3, measures to address inadvertent discovery of archaeological resources during construction

- Impact on human remains: Significant; less than significant with CPHP Mitigation Measure CUL-4, measures to address inadvertent discovery of human remains

- Impact on tribal cultural resources: Significant; less than significant with CPHP Mitigation Measure CUL-3

The CPHP EIR concluded that the demolition of UC Hall and removal of Zakheim Murals in order to construct the RAB project would result in a significant and unavoidable impact on historical resources even after mitigation. All other cultural resource impacts would be less than significant with mitigation. The proposed addition of building space to the PRAB and the West Campus site improvements would not alter the significance of any of the previously analyzed impacts nor require new mitigation. The impacts of PRAB project on unknown archaeological resources, human remains, and tribal cultural resources would be less than significant with the implementation of CPHP Mitigation Measures CUL-3 and CUL-4.

However, the PRAB project includes renovation of about 2,700 assignable square feet of space on the 7th floor of the CSB and the construction of a new bridge that would connect the 7th floor of the PRAB to the 7th floor of the CSB on the southwest side of the CSB. Based on evaluations conducted by qualified historians, the CSB meets the criteria for listing on the California Register of Historical Resources and therefore is a historical resource under CEQA. Additional historic documentation completed by Page & Turnbull in 2011 determined that the CSB has a period of significance of 1933, reflecting its date of construction on the UCSF Parnassus Heights campus and its original architectural design. Page & Turnbull also concluded that the character-defining features of the building include its form and massing, and its Art Moderne architectural style, as reflected in its northern and southern façades. The planned new bridge would connect to the CSB in the southwest portion of the building, which was constructed in 1963 and is identified as a non-contributing (non-historic) feature in the 2011 Page & Turnbull UCSF CSB Project Evaluation Memorandum. Demolition work for bridge installation would be limited to this non-contributing area of the building

and would remove a rectangular area of exterior wall and one grouping of windows. These non-contributing windows in the area around the new bridge would be replaced with 90-minute rated window assemblies within existing openings. Furthermore, the interior renovations in the CSB would conform to the *Secretary of the Interior's Standards for Rehabilitation* ("Standards"). An evaluation of the proposed bridge was also conducted against the Standards, a set of 10 treatment Standards for historic buildings developed by the National Park Service. The evaluation concluded that the proposed bridge complies with all 10 Standards. Therefore, the proposed bridge would not affect the CSB such that its ability to convey its historic significance would be impaired (ARG 2023).[5] The impact from the proposed renovations and the new bridge on the CSB would be less than significant.

In summary, the PRAB project would not result in new or substantially more severe significant cultural resource impacts than previously analyzed and disclosed in the CPHP EIR, and no new mitigation would be required.

D.5 Greenhouse Gas Emissions

The CPHP EIR analyzed the impact of greenhouse gas emissions from the construction and operation of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Impact due to GHG emissions: Significant; less than significant with CPHP Mitigation Measures GHG-1a, -1b, -1c, measures to reduce GHG emissions, transportation and air emissions control measures, and acquisition of offsets, if necessary

- Impact due to conflict with GHG reduction plan: Less than significant

The CPHP EIR included an analysis of GHG emissions that would be added to the existing GHG emissions generated at the Parnassus Heights campus site from the operation of the Initial Phase projects, including the RAB project. The analysis concluded that Initial Phase projects combined and individually would substantially increase the campus site's total GHG emissions and result in a significant impact, which would be mitigated to a less than significant level with CPHP Mitigation Measures GHG-1a, -1b, and -1c.

Operational GHG emissions are generally proportional to the amount of building space, the size of population occupying new building space, and the associated vehicle trips. As noted above, while the PRAB project would involve more building space than before and a somewhat greater population, there would be a greater than proportional decrease in the space and population associated with the New Hospital compared to the previous estimates used in the CPHP EIR for impact analysis. Therefore, the operational GHG emissions from the Initial Phase projects would not be greater than previously reported in the CPHP EIR. The GHG emissions from the PRAB project would be slightly greater than previously estimated but would be mitigated to a less than significant level with the same aforementioned mitigation measures. The West Campus site improvements would not result in an increase in the campus site's GHG emissions.

[5] ARG 2023. Clinical Sciences Building (CSB) Exterior Envelope Upgrade and PRAB/CSB Bridge Connection, Secretary of the Interior's Standards Compliance Analysis. Memorandum prepared by Architectural Resources Group for UCSF, dated July 12, 2023.

Since the certification of the CPHP EIR, the UC Office of the President has made changes to the Climate Action section of its Sustainable Practices Policy with the intent of aligning the UC climate policy with the State's climate goals, and to direct campuses to (1) establish updated emissions reduction targets, (2) focus on direct emissions reductions, and (3) avoid the use of carbon offsets in meeting reduction targets. The updated UC policy, which was adopted on July 13, 2023, also sets forth a timeline for each campus/medical center to set their GHG reduction targets within a framework of achieving decarbonization by 2045. Under the updated UC policy, each campus will set prior to 2025 location-specific targets using a 2019 baseline. The targets will require that total emissions (Scopes 1, 2 and 3) be reduced by at least 90% by 2045; scope 1 emissions reduction targets will be set individually by each campus for 2030, 2035, and 2045; scope 2 target for all locations will be to purchase 100% clean electricity beginning 2025; and scope 3 targets will be set by each campus in alignment with State goals. With respect to offsets, while the updated UC policy discourages the use of carbon offsets to achieve the established targets, it allows for offsets to be purchased to meet CARB's regulatory requirements and voluntary offsets to be purchased for other reasons such as CEQA mitigation, LEED compliance, etc. The updated UC policy requires each campus to update its Climate Action Plan by 2026 to reflect these changes and begin implementing the plan immediately after that.

The updated UC policy does not affect the PRAB impact analysis, impact significance conclusions or the mitigation measures set forth in the CPHP EIR. This is because the policy is focused on campus-wide climate action plans (and not individual projects) and provides campuses time to update and implement them. The new targets and related requirements will not become effective until after 2026. Furthermore, the PRAB project is analyzed in the CPHP EIR at a project level, and the project's impact was found to be significant because there would be net increase in emissions due to the project (the significance threshold used in the CPHP EIR was a net zero increase in GHG emissions). The impact analysis did not rely on the project's consistency with UCSF's GHG Reduction Strategy (the campus' climate action plan) as a means of determining the impact significance. Therefore, to the extent that UCSF's GHG Reduction Strategy is revised between now and 2026 in light of the updated UC policy, it would not affect the conclusions in the CPHP EIR with respect to the impacts of the PRAB project. Lastly, as noted above, the significant impact of the PRAB project would be reduced to a less than significant level with CPHP Mitigation Measures GHG-1a, -1b, and -1c, which includes purchase of offsets if needed. As discussed above, the updated UC policy allows for the use of offsets for other reasons, such as CEQA mitigation, which in this case has already been adopted and incorporated into the project. Furthermore, the project has incorporated numerous design features to directly reduce its GHG emissions with the intent of avoiding or minimizing the need for offsets. These include the use of electricity purchased under the Clean Energy program; elimination of natural gas use from the new building; energy conservation measures through the building massing, ventilation rates, daylighting, and a high performing envelope; and targeting Leadership in Energy and Environmental Design (LEED™) Gold certification at a minimum. The updated UC Sustainability Policy does not represent significant new information as it has no effect on the impact conclusions or the mitigation measures in the CPHP EIR applicable to the PRAB project.

In summary, the PRAB project would not result in new or substantially more severe significant GHG impacts than previously analyzed and disclosed in the CPHP EIR, and no new mitigation would be required.

D.6 Hazards and Hazardous Materials

The CPHP EIR analyzed the impacts related to hazards and hazardous materials from the construction and operation of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Impact due to the routine transport, use, or disposal of hazardous materials during project construction and operations: Significant; less than significant with CPHP Mitigation Measure HAZ-1, Excavation Management Plan to minimize exposure to naturally occurring asbestos during construction

- Impact due to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment: Less than significant

- Impact from hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school: Less than significant

- Impact due to previously unknown contamination encountered during construction: Potentially significant; Less than significant with CPHP Mitigation Measure HAZ-4, Soil Management Plan to minimize exposure to contamination in soil

The CPHP EIR noted that all construction activities under the CPHP, including the RAB, would be required to adhere to the NPDES Construction General Permit and implement appropriate BMPs that would control hazardous materials transport, handling, and disposal, and the impact from the routine use of hazardous materials during construction would be less than significant. In regard to the potential for encountering naturally occurring asbestos during construction, the impact of the CPHP development, including the RAB, would be potentially significant. However, implementation of CPHP Mitigation Measure HAZ-1 would ensure that disturbance of underlying materials would not expose workers or the public to naturally occurring asbestos, if present. The CPHP EIR also found that previously unknown contamination could be encountered during construction of CPHP development, including the RAB, with a potential to result in a significant impact. However, implementation of CPHP Mitigation Measure HAZ-4 would reduce the impact to a less than significant level.

With regard to the routine use, transport and disposal of hazardous materials during operations, the CPHP EIR noted that hazardous materials use on the campus site would be expanded as part of operation of the new or expanded facilities under the proposed CPHP, including the RAB. However, the routine transport, handling and disposal of all hazardous materials are governed by extensive federal and state regulations and UC policies which strictly control every aspect of campus hazardous materials management and UCSF has numerous comprehensive programs in place to comply with all applicable laws and regulations. Therefore, the impact would be less than significant. Similarly, due to compliance with laws and regulations and continued implementation of UCSF programs related to hazardous materials management, the impact of the CPHP, including the RAB, related to the transport, handling and disposal of hazardous materials under accident or upset conditions would also be less than significant.

The PRAB project is substantially the same as the RAB in terms of its footprint during construction and therefore during construction, the PRAB project would have the potential to result in the same impacts as the RAB related to naturally occurring asbestos and previously unknown contamination, and the same mitigation measures set forth above (CPHP Mitigation Measures HAZ-1 and HAZ-4) would be implemented to mitigate the potentially significant impacts. With regard to PRAB operations, as with the RAB, hazardous materials would be used for building maintenance and in research and clinical laboratories. As with the RAB, the transport, handling and disposal of hazardous materials would be controlled by UCSF hazardous materials management programs in compliance with laws and regulations so there would not be any significant impacts on the environment from the routine handling of these materials or during upset conditions.

In addition to UCSF's hazardous materials management programs, a small amount of existing space on the 3rd floor of the Health Sciences Instruction and Research East building is planned to be renovated in order to handle any additional hazardous waste generation that may occur as a result of the CPHP's operations, which includes the PRAB. Renovations of existing space are routine operational issues that UCSF regularly handles as part of its ministerial internal space planning.

In summary, the PRAB project would not result in new or substantially more severe significant impacts related to hazards and hazardous materials than previously analyzed and disclosed in the CPHP EIR, and no new mitigation would be required.

D.7 Hydrology and Water Quality

The CPHP EIR analyzed the impact on hydrology and water quality from the construction and operation of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Impact related to a violation of water quality standards or otherwise adversely affect water quality: Significant; Less than significant with CPHP Mitigation Measure HYD-1, Construct and implement storm water control measures to meet performance standards

- Impact related to potentially increasing surface flows that could leading to flooding: Significant; Less than significant with CPHP Mitigation Measure HYD-1

The CPHP EIR noted that development associated with the CPHP would not substantively change how runoff is directed or routed through the campus site to the City's Combined Sewer System (CSS) and the respective combined flow treatment plant. Consistent with post-development BMP requirements, including LID measures, contained within the NPDES Phase II MS4 permit which are incorporated into UCSF's Storm Water Program, development associated with the CPHP would include operational stormwater features that would minimize discharge of pollutants and eliminate prohibited non-stormwater discharges as part of the final drainage design. Implementation of LID site design measures such as green roofs, permeable paving, or other infiltration-based stormwater features (e.g., flow-through planters) would be required in project designs which would effectively reduce the amount of increase in impervious surfaces. Incorporation of these design features would be effective in minimizing the offsite discharge of stormwater pollutants. Due to the inclusion of post-development BMPs and NPDES drainage control requirements, the operational impacts of the CPHP related to water quality and waste discharge requirements would be reduced, and the combined flows from the campus site would be well within the dry weather capacity of the City's treatment plants. However, increases in stormwater volumes and wastewater volumes under the

CPHP could increase the volume or frequency of overflow events at one or both of the City's treatment plants in wet weather conditions, and result in a significant impact on water quality. The CPHP EIR noted that the RAB project would also result in a similar potentially significant impact on water quality under wet weather conditions due to increased combined flows, which would be reduced to a less than significant level with the implementation of CPHP Mitigation Measure HYD-1. This mitigation measure requires the project "to implement water conservation measures and construct and implement stormwater management controls as needed so as to: (a) Avoid increasing the likelihood of surcharges by exceeding the capacity of the City's CSS; (b) Avoid increasing the extent or duration of ponding or overland flow by exceeding the capacity of the City's CSS; and (c) Avoid discharges to the City's CSS that could increase the frequency, duration, or volume of combined sewer discharges to the receiving waters."

To comply with this mitigation, UCSF commenced consultation with SFPUC staff in June 2022 and has been working closely with SFPUC staff to accomplish the appropriate design and documentation for the Initial Phase projects, including the PRAB project. UCSF worked with the SFPUC Hydraulics Division staff to model projected flow and analyze the capacity of the adjoining sewer system to ensure that the system can accommodate UCSF's increased flows and/or modified connection points. UCSF also worked with the City's Urban Watershed Planning Division to ensure the design of the PRAB and West Campus site improvements are consistent with requirements of the City's Stormwater Management Ordinance ensuring that the stormwater runoff rate and volume from the project shall not only not exceed pre-development conditions for the 1- and 2-year, 24-hour design storm, but are actually reduced from pre-development conditions. The project design ensures that the total volume of stormwater discharges from the Parnassus Heights campus site in wet weather is decreased by an amount sufficient to offset flows from any increase in impervious surfaces and any increases in wastewater discharges as a result of the Initial Phase of the CPHP, including PRAB and West Campus site improvements. In conformance with the City's Stormwater Management Ordinance, the project is electing to receive SFPUC stormwater credit from the demolition and return to Mount Sutro Natural Reserve pervious area of two other CPHP projects - the Surge and Woods buildings, which were demolished in Summer 2023 and site restoration is in progress. Furthermore, UCSF submitted the SFPUC Modified Compliance Application for the UCSF PRAB project on July 23, 2023, supporting the discussions in previous coordination meetings showing conformance with the local ordinance and documenting the University's fulfillment of its related CEQA mitigation measures. Based on the above, the PRAB project would be fully compliant with CPHP Mitigation Measure HYD-1, and consistent with the conclusion in the CPHP EIR, the project's impact on water quality would be reduced to a less than significant level with mitigation.

The CPHP EIR stated the additional development under the CPHP would incrementally increase the amount of impervious surfaces over existing conditions, primarily in the campus core, and could result in localized alteration of existing drainage patterns within the campus site. However, implementation of the LID requirements would minimize any increase in the rate or amount of peak storm runoff making flooding on- or off-site unlikely. It also stated with respect to the RAB that the project would be required to implement stormwater drainage control features consistent with the NPDES Phase II MS4 permit. Additionally, implementation of CPHP Mitigation Measure HYD-1 would also ensure that changes to drainage patterns, if any, do not increase stormwater flow volumes such that there would be increased potential for flooding or adverse effects related to stormwater drainage capacity. The potential impact of the RAB related to stormwater drainage capacity would be less than significant with mitigation. As set forth above, UCSF has been coordinating closely with SFPUC to comply with the City's stormwater management ordinance and CPHP Mitigation Measure

HYD-1. This compliance will ensure that the impact of the PRAB on stormwater drainage capacity and flooding would be less than significant.

In summary, the PRAB project would not result in new or substantially more severe significant hydrology and water quality impacts than previously analyzed and disclosed in the CPHP EIR, and no new mitigation would be required.

D.8 Noise

The CPHP EIR analyzed the noise impacts from the construction and operation of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Noise impacts during construction activities: Significant; Less than significant with CPHP Mitigation Measures NOI-1a through 1c, Construction Noise Control Measures, Construction Hours, and Pile Driving Noise Reducing Measures

- Vibration impacts during construction activities: Significant; Less than significant with CPHP Mitigation Measures NOI-3a and 3B, Limited Use of Vibratory Rollers, Assessment and Relocation/Retrofitting of Vibration-Sensitive Equipment

- Impacts during project operations from a substantial increase in ambient noise level: Significant; Less than significant with CPHP Mitigation Measure NOI-2, Operational Noise Control

- Operational noise impact from increasing the average daily noise levels by more than 3 dBA: Less than significant

Impact due to Construction Noise

The CPHP EIR found that construction activities associated with the RAB would not result in noise levels that would exceed the threshold of 90 decibels but that they would cause the ambient noise levels to increase substantially (by more than 10 decibels above ambient levels). Therefore, the construction noise impact would be significant. Although the building construction schedule of the PRAB would be one year longer than previously analyzed, its construction would involve the use of the same construction equipment and methods as before and therefore the same levels of noise would be generated by the project and experienced at nearby receptors on Parnassus Avenue. Furthermore, all of the same mitigation measures (CPHP Mitigation Measure NOI-1) that address construction noise would be applied during the construction of the PRAB and West Campus site improvements, including the retaining walls, which would minimize construction noise levels experienced at the nearby receptors. Nonetheless, as with the RAB, noise levels due to PRAB construction would still be more than 10 decibels above ambient noise levels after mitigation and the project's impact would remain significant and unavoidable.

Impact Due to Construction Vibrations

As stated above, CSB, which is located adjacent to the project site, is a historical structure. The CPHP EIR noted that the use of a vibratory roller within 25 feet of a historical structure could result in building damage. Therefore, CPHP Mitigation Measure NOI-3a would be implemented during construction of the RAB project to avoid the impact. In addition, CPHP Mitigation Measure NOI-3b

would ensure protection of any vibration-sensitive equipment within 150 feet of construction and demolition areas. With implementation of these mitigation measures, potential impacts of the RAB project from construction vibrations would be less than significant. The PRAB would not involve the use of any construction equipment that could result in greater vibrations than previously estimated and reported in the CPHP EIR, and as with the RAB, CPHP Mitigation Measures NOI-3a and 3b would be implemented during the construction of the PRAB and West Campus site improvements, including the retaining walls, which would mitigate vibration effects of the project to a less than significant level. No new mitigation is required.

As discussed in the CPHP EIR, the potential for project-related vibration to cause human annoyance and sleep disturbance effects exists when substantial construction activities are proposed during the nighttime hours, which would not occur with implementation of CPHP Mitigation Measure NOI-1b, Construction Hours, other than in rare circumstances. Therefore, with mitigation, human annoyance impacts from vibration would be less than significant. As with the RAB, the PRAB project, including the West Campus site improvements, would implement CPHP Mitigation Measure NOI-1b related to construction hours and the impact would be reduced to less than significant. No new mitigation is required.

Noise Impact due Stationary Equipment

As with the RAB, which included rooftop HVAC equipment surrounded by a noise barrier and an emergency generator located in the southeast corner of the building, which would be tested periodically, the PRAB would also include HVAC equipment and three emergency generators on the building rooftop surrounded by a noise barrier. The PRAB project would also implement CPHP Mitigation Measure NOI-2 and the project's stationary sources would be designed to comply with the City of San Francisco Police Code related to stationary source noise, which UCSF strives to be compliant with. Therefore, impacts from increased stationary source noise associated with the PRAB would also be less than significant with mitigation. There would be no stationary sources of noise associated with the West Campus site improvements.

Noise Impact from Project Traffic

The CPHP EIR analysis of traffic noise revealed that the traffic generated through the buildout of the CPHP would not significantly elevate roadway noise levels. Since operational traffic generated individually by the RAB, as well as other Initial Phase projects, would be a subset of the total volume of traffic generated by the CPHP, the EIR concluded that the traffic associated with the RAB and other Initial Phase projects individually would also not significantly affect roadway noise levels. As noted above, while the PRAB project would involve more building space than planned before and a somewhat greater population, there would be a greater than proportional decrease in the space and population associated with the New Hospital compared to the previous estimates used in the CPHP EIR for impact analysis. Therefore, the traffic noise impact from the Initial Phase projects would not be greater than reported in the CPHP EIR.

Although the PRAB individually would generate slightly greater traffic than estimated before, project traffic would travel to and from the existing parking garages on the campus and not to the PRAB because no parking would be provided on the project site. The increased project traffic would not affect roadway noise levels on Fifth Avenue. The project does, however, include a loading dock to handle two delivery vehicles at a time, and an estimated 16 to 20 delivery vehicles would travel

to the loading dock per day. Beginning in 2013, UCSF has been conducting traffic counts at the intersection of Fifth Avenue and Kirkham Street every two years. Based on traffic counts conducted in 2013, 2016, and 2018, the pre-COVID average daily number of UCSF-related delivery vehicles passing through the intersection was 24. Including all non-passenger vehicles, such as delivery, contractor, utility, and UCSF vehicles, the average daily total was 69 UCSF-related vehicles, while the total daily traffic volume (UCSF and non-UCSF) at the intersection was 1,657 vehicles. Upon completion of the PRAB, the total number of delivery vehicles (22-26) passing through the intersection would be similar to the pre-COVID delivery vehicle volume, while the total number of UCSF-related non-passenger vehicles (43-47) would remain well below pre-COVID volumes. Therefore, the PRAB would not substantially increase vehicle traffic on Fifth Avenue, including delivery vehicles, to change the CPHP EIR conclusion of a less than significant traffic noise impact. Furthermore, the loading dock would be located in the rear of the proposed PRAB and noise from loading dock activities would not affect nearby residential receptors due to topography and intervening structures.

In summary, the PRAB project would not result in new or substantially more severe significant noise and vibration impacts than previously analyzed and disclosed in the CPHP EIR, and no new mitigation would be required.

D.9 Transportation

The CPHP EIR analyzed the transportation impacts from the construction and operation of the RAB project. The CPHP EIR concluded the following relative to the RAB project:

- Impact related to conflict with plan or program addressing circulation: Less than significant
- Impact related to Vehicle Miles Traveled (VMT): Less than significant
- Impact related to hazard from a geometric design feature: Less than significant
- Impact related to inadequate emergency access: Less than significant
- Temporary impact during construction: Significant; Less than significant with CPHP Mitigation Measure TRANS-5, construction coordination and monitoring measures

The transportation analysis in the CPHP EIR concluded that all operational transportation impacts, including the VMT impact, of the RAB would be less than significant. As noted above, while the PRAB project would involve more building space than before and a somewhat greater population, there would be a greater than proportional decrease in the space and population associated with the New Hospital compared to the previous estimates used in the CPHP EIR for impact analysis. Therefore, the operational VMT impact from the Initial Phase projects would not be greater than reported in the CPHP EIR. The impact of the PRAB project individually would also remain less than significant because the travel characteristics of the additional faculty and staff accommodated in the additional space would not be different from the faculty and staff previously analyzed. Furthermore, the RAB project's average daily VMT was calculated to be 10 VMT per employee which was substantially below the project threshold of 16.2 VMT per employee. Even if the travel characteristics of the additional faculty and staff were different, the average daily VMT per employee would not increase such that the threshold would be exceeded. The operational VMT

impact would remain less than significant. As with the RAB, during construction of the PRAB project, CPHP Mitigation Measure TRANS-5 would be implemented to minimize transportation impacts.

In summary, the PRAB project would not result in new or substantially more severe significant transportation impacts than previously analyzed and disclosed in the CPHP EIR, and no new mitigation would be required.

D.10 All Other Topics

All other analysis topics, including Agricultural and Forest Resources, Geology and Soils, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Utilities and Service Systems would be unaffected by the revised project. As with the RAB project, all of the applicable CPHP mitigation measures, including CPHP Mitigation Measures GEO-3 and GEO-6, would be implemented during the construction and operation of the PRAB project.

E. Changed Circumstances/Significant New Information

Since certification of the CPHP EIR, no substantial changes have occurred in the circumstances under which the proposed project would be undertaken that have not already been analyzed in the prior analyses, and no new information of substantial importance has emerged that would materially change any of the analyses or conclusions of the existing CPHP EIR.

F. Conclusion

The revised project does not entail substantial changes that would require major revisions to the existing CPHP EIR, nor would there be new significant environmental effects or a substantial increase in the severity of significant effects previously identified in the CPHP EIR. Therefore, preparation of a subsequent EIR or supplemental EIR pursuant to CEQA Guidelines Sections 15162 or 15163, respectively, is not required for all the reasons stated above.

APPENDIX A
PRAB Project Mitigation Monitoring and Reporting Program

APPENDIX A

Parnassus Research and Academic Building Project Mitigation Monitoring and Reporting Program

Introduction

When approving projects with mitigation measures that if implemented would avoid or lessen significant impacts, the California Environmental Quality Act (CEQA) requires public agencies to adopt monitoring and reporting programs or conditions of project approval to mitigate or avoid the identified significant effects (Public Resources Code Section 21081.6(a)(1)). A public agency adopting measures to mitigate or avoid the significant impacts of a proposed project is required to ensure that the measures are fully enforceable, through permit conditions, agreements, or other means (Public Resources Code Section 21081.6(b)). The mitigation measures required by a public agency to reduce or avoid significant project impacts not incorporated into the design or program for the project may be made conditions of project approval as set forth in a Mitigation Monitoring and Reporting Program (MMRP). The program must be designed to ensure project compliance with mitigation measures during CPHP implementation.

The MMRP includes the mitigation measures identified in the CPHP EIR which are required to address the significant impacts associated with the proposed Parnassus Research and Academic Building ("PRAB") project. The required mitigation measures are summarized in this program; the full text of the impact analysis and mitigation measures are presented in the CPHP Final EIR and Addendum No. 1.

Format

The MMRP is organized in a table format (see **Table 1**), keyed to each significant impact and each mitigation measure. Only mitigation measures adopted to address significant impacts are included in this program. Each mitigation measure is set out in full, followed by a tabular summary of monitoring requirements. The column headings in the tables are defined as follows:

- **Environmental Impact:** This column presents the environmental impacts identified in the EIR.
- **Mitigation Measures:** This column identifies the mitigation measures associated with the impacts identified in the EIR.
- **Implementation Procedure:** This column identifies the procedure for implementing each mitigation measure.
- **Responsible Unit:** This column contains an assignment of responsibility for the monitoring and reporting tasks.

- **Report Mechanism:** This column refers to the outcome from implementing the mitigation measure.

Enforcement

If the proposed PRAB project is approved, the MMRP would be adopted by the Regents. Therefore, all mitigation measures for significant impacts must be carried out in order to fulfill the requirements of approval. A number of the mitigation measures would be implemented during the course of the development review process. These measures would be checked on plans, in reports, and in the field prior to construction. Most of the remaining mitigation measures would be implemented during the construction or operation of the PRAB project.

TABLE 1
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.1 Aesthetics, Wind, and Shadow				
Impact AES-3: Implementation of the PRAB project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	**CPHP Mitigation Measure AES-3: Minimize light and glare resulting from new buildings.** Light and glare from buildings shall be minimized through the orientation of the building, use of landscaping materials and choice of primary facade materials. Design standards and guidelines to minimize light and glare shall be adopted for the new buildings, including: • Reflective metal walls and mirrored glass walls shall not be used as primary building materials for facades. • Installation of illuminated building signage shall strive to be consistent with UCSF design guidelines and/or City Planning Code sign standards for illumination. • Exterior light fixtures shall be configured to emphasize close spacing and lower intensity light. Light fixtures shall use luminaries that do not direct the cone of light towards off-campus structures. • Design parking structure lighting to minimize off-site glare.	Issue instructions to design teams to incorporate design standards in all project plans and designs. Require architects and design professionals to document how design standards are addressed and incorporated. Review project plans to ensure that such features have been incorporated in the design to address the impacts.	UCSF Project Manager and Design Teams	Ensure project incorporates design standards prior to final project approval. After construction, the Project Manager shall provide written verification to the Monitor that design standards have been incorporated to address the impacts.
Impact AES-4: Implementation of the PRAB project would potentially create wind hazards in publicly accessible areas of substantial pedestrian use.	**CPHP Mitigation Measure AES-4: Design new buildings to minimize wind impacts at pedestrian level.** Prior to the approval of the design of individual buildings to be developed pursuant to the CPHP and for which one or more building facades would have a height of 80 feet or more, UCSF shall engage a qualified wind consultant to conduct wind tunnel testing of the proposed building(s) to determine whether the building(s) would result in new exceedance(s) of the City of San Francisco's 26-mph pedestrian wind hazard criterion. The wind tunnel testing shall be conducted for the building(s) under consideration in the context of then-existing conditions as well as in the context of conditions representative of then-anticipated CPHP buildout (the buildout scenario in the EIR, as may be modified from time to time by UCSF to reflect actual building designs known at the time) so as to determine whether the individual building(s) and/or the buildout condition would result in exceedances of the wind hazard criterion. If the wind tunnel analysis determines that the building(s)' design or buildout conditions would increase the hours of wind hazard exceedance or the number of test points subject to hazardous winds, compared to then-existing conditions, UCSF shall work with the wind consultant to identify feasible mitigation strategies, including design changes (e.g., setbacks, rounded/chamfered building corners, stepped facades, etc.), to eliminate or reduce	Issue instructions in each bid package to alert the architect and design team that UCSF will engage, or require the design team to engage, a qualified wind consultant to evaluate proposed building designs for buildings 80 feet or more in height. Require documentation of the findings of all wind consultation and testing, where deemed necessary, and proposed wind-reducing measures. Review project plans to ensure that feasible necessary wind-reducing features have been incorporated in the design.	UCSF Project Manager and Design Teams	Provide written verification in report form to the Monitor for each contract bid that the bid includes provision for wind hazard consultation and testing, where deemed necessary, for buildings 80 feet or more in height, documentation of the results, and incorporation into the building design of any necessary wind reduction features.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.1 Aesthetics, Wind, and Shadow (cont.)				
Impact AES-4 (cont.)	wind hazards to the maximum feasible extent. If UCSF finds that these changes or other wind speed reduction strategies are not feasible as they would unduly restrict the proposed building's space program, result in operational inefficiencies, and/or substantially higher costs, the building(s) may nonetheless be approved provided that the project incorporates wind speed reduction strategies to the maximum feasible extent, as determined by UCSF in consultation with the wind consultant. Wind speed reduction strategies could also include features such as landscaping, localized installation of porous/solid screens, installation of canopies along building frontages, and the like.			
Impact C-AES-3: Implementation of the CPHP, including the PRAB project, combined with cumulative projects, would potentially create wind hazards in publicly accessible areas of substantial pedestrian use.	Implement CPHP Mitigation Measure AES-4.	See CPHP Mitigation Measure AES-4.	See CPHP Mitigation Measure AES-4.	See CPHP Mitigation Measure AES-4.
EIR Section 4.2 Air Quality				
Impact AIR-1: Construction of the PRAB project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	**CPHP Mitigation Measure AIR-1a: Clean Construction Equipment for CPHP Projects.** The construction contractor(s) shall develop a plan demonstrating that the off-road equipment used to on-site to construct CPHP projects would achieve a fleet-wide average 80 percent reduction in NO_X exhaust emissions, compared to uncontrolled aggregate statewide emission rates for similar equipment. One feasible plan to achieve this reduction would include the following: • All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the project site for more than two days continuously shall be equipped with engines meeting USEPA emissions standards for Tier 4 Final certified engines or equivalent; • Use of electrically-powered construction equipment to the degree available and feasible; and Alternatively, if UCSF can demonstrate through preparation of an air quality assessment report prepared by an air quality specialist that large or contemporaneous CPHP construction projects would not exceed BAAQMD thresholds, then the above mitigation requirements may be waived.	Issue instructions in each bid package of each construction project for contractors to incorporate the required clean construction equipment plan. The successful contractor will prepare a plan to achieve a fleet-wide average 80 percent reduction in NO_X exhaust emissions, compared to uncontrolled aggregate statewide emission rates for similar equipment.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provision for construction NOx emissions reduction. Provide a report on construction emissions reduction strategies and report to Monitor upon request; but no less than quarterly after beginning each construction phase.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.2 Air Quality (cont.)				
Impact AIR-1 (cont.)	**CPHP Mitigation Measure AIR-1b: Best Management Practices for Controlling Particulate Emissions during Construction.** The following BAAQMD Best Management Practices for particulate control will be required for all construction activities related to CPHP projects (BAAQMD, 2017). These measures will reduce particulate emissions primarily during soil movement, grading and demolition activities but also during vehicle and equipment movement on unpaved project sites. • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, § 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at UCSF regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's telephone number shall also be visible to ensure compliance with applicable regulations.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will prepare a construction air pollution control strategy to report on the implementation of the mitigation measure.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provision for construction air pollution control. Provide a report on construction air pollution control strategies and report to Monitor upon request; but no less than quarterly after beginning each construction phase.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.2 Air Quality (cont.)				
Impact AIR-3: Construction activities for the PRAB project could expose sensitive receptors to substantial pollutant concentrations and exceed the LRDP EIR standard of significance by exposing receptors to toxic air contaminant emissions that (1) result in a cancer risk greater than 10 cancer cases per 1 million people exposed in a lifetime; or (2) for acute or chronic effects, result in concentrations of toxic air contaminant emissions with a Hazard Index of 1.0 or greater.	Implement CPHP Mitigation Measure AIR-1a.	See CPHP Mitigation Measure AIR-1a.	See CPHP Mitigation Measure AIR-1a.	See CPHP Mitigation Measure AIR-1a.
Impact AIR-5: The PRAB project could conflict with or obstruct implementation of the *2017 Clean Air Plan*.	**CPHP Mitigation Measure AIR-5: Implement "cool roof and pavement" design elements.** UCSF shall implement "cool parking" that promotes the use of cool surface treatments for new parking facilities, as well existing surface lots undergoing resurfacing. Additionally, new building construction shall include low-albedo roofing materials to the extent it can reduce energy demand.	Issue instructions in each bid package of each design project for the design team to incorporate the mitigation measure.	UCSF Project Manager and Design Teams	Provide written verification in report form to the Monitor for that the required design elements have been incorporated into project-specific design prior to project approvals being granted.
Impact C-AIR-1: Implementation of the CPHP, including the PRAB project, combined with cumulative development in the project area would result in a cumulatively considerable net increase of a criteria pollutant (PM_{10}) for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	Implement CPHP Mitigation Measures AIR-2a and AIR-2b.	See CPHP Mitigation Measures AIR-2a and 2b.	See CPHP Mitigation Measures AIR-2a and 2b.	See CPHP Mitigation Measures AIR-2a and 2b.
Impact C-AIR-2: Implementation of the CPHP, including the PRAB project, could contribute considerably to cumulative emissions of TACs and $PM_{2.5}$ that could expose sensitive receptors to substantial pollutant concentrations or health risks.	Implement CPHP Mitigation Measures AIR-1a and AIR-1b.	See CPHP Mitigation Measures AIR-1a and 1b.	See CPHP Mitigation Measures AIR-1a and 1b.	See CPHP Mitigation Measures AIR-1a and 1b.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.3 Biological Resources				
Impact BIO-1: Implementation of the PRAB project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	**CPHP Mitigation Measure BIO-1b. Protection of Monarch Butterflies** Prior to demolition activities, a qualified biologist familiar with monarch butterfly behavior and habitat shall conduct a preconstruction survey for the presence of overwintering monarch butterfly aggregations. The survey shall be conducted in December or January during the period when overwintering aggregations appear. Should an overwintering aggregation be identified in trees surrounding proposed work sites within or adjacent to the Reserve, a 200-foot buffer shall be established around the occupied trees until the aggregation has dispersed, and construction within the buffer zone will be avoided for the duration of the overwintering period.	Engage a qualified biologist to undertake the survey(s) specified in the mitigation measure. If monarch butterfly aggregations are detected, establish appropriate buffers, and avoid construction in the buffer zone until the end of overwintering period.	UCSF Project Manager	Provide written verification in report form to the Monitor for that the required survey(s) have been conducted prior to commencement of construction. In the event buffers are established, document all activities related to the buffers.
	CPHP Mitigation Measure BIO-1c. Protection of Nesting Birds • Tree and vegetation removal or pruning associated with project construction and commencement of outdoor project construction activities shall be avoided from February 1 through August 31, the primary local bird nesting season, to the extent feasible. If tree and vegetation removal or pruning associated with project construction is proposed during the nesting period, within seven days prior to the proposed start of construction activities a qualified biologist shall conduct a nesting bird survey of all potential habitat at the construction site and within 250 feet of the perimeter of the construction site. The qualified biologist will monitor all vegetation removal in the Open Space Reserve during bird nesting season. • If any active nests are detected during the pre-construction survey, the qualified biologist shall recommend a work-exclusion buffer zone that shall be designated around the active nest to allow for both the successful fledging of the birds and initiation of work on some portions of the project site. A qualified biologist shall monitor any occupied nest located within a protective buffer zone in order to determine if the designated buffer zone is effective and when the buffer zone is no longer needed. If the buffer zone is determined to be ineffective, its size shall be increased until it is effective, or work within one-quarter mile of the nest shall cease until the young have fledged and are independent of the nest.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of appropriate timing for tree and vegetation removal and pruning for protection of nesting birds. The contractor will also retain a qualified biologist to conduct nesting bird surveys and if active nests are discovered, work-exclusion buffers will be established and active nests will be monitored for buffer effectiveness.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure. Provide construction status report, including information on pre-construction nesting bird surveys and implementation of buffers (if buffers were needed) to Monitor upon request.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.3 Biological Resources (cont.)				
Impact BIO-1 (cont.)	**CPHP Mitigation Measure BIO-1d. Protection of Roosting Bats** • Prior to project construction, a qualified bat biologist shall conduct a pre-construction survey for roosting bats in trees to be removed or pruned and structures to be demolished within the work area and within a 50-foot radius of the work area. If no roosting bats are found, no further action is required. • If a non-maternal roost of bats is found in a tree or structure to be removed or demolished as part of project construction, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity. Removal or demolition should occur no sooner than at least two nights after the initial minor site modification (to alter airflow). This action allows bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of disturbance. Departure of the bats from the construction area shall be confirmed with a follow-up survey by a qualified bat biologist prior to start of construction. • If active maternity roosts are found in trees or structures that will be removed or demolished as part of project construction, tree removal or demolition of that tree or structure shall commence and be completed before maternity roosting colonies form (generally before March 1), or shall not commence until after young are flying (generally after July 31). Active maternity roosts shall not be disturbed between March 1 and July 31.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of appropriate procedures for protection of nesting bats. The contractor will also retain a qualified biologist to conduct a pre-construction survey for roosting bats and if a roost is detected to implement a work-exclusion buffer around the roost. The biologist will also check for non-maternal roosts and implement procedures for removal of non-maternal roosts.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure. Provide construction status report, including information on pre-construction bat roost surveys and implementation of buffers (if buffers were needed) to Monitor upon request.
	CPHP Mitigation Measure BIO-1e. Worker Education • A qualified biologist shall provide training to all construction workers prior to starting work on plan components. The training shall cover special-status species with potential to be found onsite, avoidance measures to be undertaken if a species is found, avoiding the spread of invasive weeds and pathogens during construction, and best management practices for site housekeeping.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of appropriate worker education for protection of special-status species.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure. Provide construction status report to Monitor upon request.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.3 Biological Resources (cont.)				
Impact BIO-2: Implementation of the PRAB project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	**Mitigation Measure BIO-2a: Prevention of Harm to Migrating Birds During Construction.** Construction areas requiring lights shall implement the following measures to the extent feasible: • Construction-related lighting shall be fully shielded and focused down to ensure no significant illumination passes beyond the immediate work area. Lighting shall be positioned around the perimeter of the work area positioned toward activity and not surrounding habitat of the Reserve. • Yellow or orange light shall be used where possible. • Construction personnel shall reduce the amount of lighting to the minimum necessary to safely accomplish the work. • Night construction near suitable habitat for nesting and migratory birds and bats (i.e., the Reserve forest and understory vegetation) shall be avoided during nesting season (February 15 – August 15). If night construction near these areas cannot be avoided, light shall not be allowed to shine directly into suitable habitat.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of appropriate procedures for construction lighting and nigh construction activity to protect migrating birds.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure. Provide construction status report to Monitor upon request.
	Mitigation Measure BIO-2b: Bird-Safe Building Treatments. Building designs shall: • Avoid installation of lighting in areas where not required for public safety. • Examine and adopt alternatives to bright, all-night, floor-wide lighting when interior lights would be visible from the exterior or when exterior lights must be left on at night, including: – Installing motion-sensitive lighting – Installing task lighting – Installing programmable timers • Installing fixtures that use lower-wattage, sodium, and yellow-red spectrum lighting (if compatible with personnel safety requirements). • Where exterior lights are to be left on at night, install fully shielded lights to contain and direct light away from the sky. • Employ glazing options such as use of either fritted glass, Dichroic glass, etched glass, translucent glass, or glass that reflects ultraviolet light in appropriate portions of the building façade.	Issue instructions to design teams to incorporate bird-safe building treatments in building designs. Require architects and design professionals to document use of bird-safe treatments and review project plans to ensure that such features have been incorporated in the design.	UCSF Project Manager and Design Teams	Verify that project incorporates treatments prior to final project approval. After construction, the Project Manager shall provide written verification to the Monitor that treatments were installed according to the design.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.3 Biological Resources (cont.)				
Impact BIO-2 (cont.)	• Minimize light and glare resulting from new buildings through the orientation of the building, use of landscaping materials and choice of primary façade materials. Design standards and guidelines to minimize light and glare shall be adopted for the new buildings, including: reflective metal walls and mirrored glass walls shall not be used as primary building materials for facades.			
Impact C-BIO-1: Implementation of the CPHP, including the PRAB project, would not result in cumulatively considerable impacts on biological resources, in combination with past, present and reasonably foreseeable future projects in the vicinity of the Parnassus Heights campus site.	Implement CPHP Mitigation Measures BIO-1b through 1e, and BIO-2a and 2b.	See CPHP Mitigation Measures BIO-1b through 1e, BIO-2a, and BIO-2b.	See CPHP Mitigation Measures BIO-1b through 1e, BIO-2a, and BIO-2b.	See CPHP Mitigation Measures BIO-1b through 1e, BIO-2a, and BIO-2b.
EIR Section 4.4 Cultural Resources and Tribal Cultural Resources				
Impact CUL-3: Implementation of the PRAB project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	**CPHP Mitigation Measure CUL-3: Inadvertent Discovery of Archaeological Resources and Tribal Cultural Resources.** Prior to commencement of construction activities, all on-site personnel shall attend a mandatory pre-project training to outline the general archaeological and tribal cultural sensitivity of the project area. The training will include a description of the types of resources that could be encountered and the procedures to follow in the event of an inadvertent discovery of resources. If prehistoric or historic-era archaeological resources are encountered by construction personnel during ground-disturbing activities, all construction activities within 100 feet shall halt and the contractor shall notify the UCSF Environmental Coordinator (EC). The UCSF EC shall retain a Secretary of the Interior-qualified archaeologist (qualified archaeologist) to inspect the find within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource, construction shall cease in an area determined by the qualified archaeologist until a mitigation plan has been prepared and implemented [CEQA Guidelines 15064.5(b)(4)]. If the find is a potential tribal cultural resource, the UCSF EC shall contact a Native American representative or representatives (as provided by the Native American Heritage Commission) [PRC 21074(2)(c)]. The qualified archaeologist, in consultation with the UCSF EC and the Native American representative(s), shall determine when construction can resume.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of procedures and requirements when cultural resources are discovered during construction activities.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure if cultural resources are discovered during construction activities. Provide construction status report to Monitor upon request.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.4 Cultural Resources and Tribal Cultural Resources (cont.)				
Impact CUL-3 (cont.)	If the resource is determined to be a historical resource or a unique archaeological resource, the preferred mitigation shall be preservation in place. In accordance with PRC Section 21083.2(b), preservation in place shall be accomplished through: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource; or (4) deeding the resource site into a permanent conservation easement. If preservation in place is not feasible, the qualified archaeologist, in consultation with the UCSF EC and the Native American representative(s) (if the resource is prehistoric), shall prepare and implement a detailed treatment plan. In all cases treatment will be carried out with dignity and respect (including protecting the cultural character, traditional use, and confidentiality of the resource). For prehistoric resources, the Native American representative(s) will be consulted on the research approach, methods, and whether burial or data recovery or alternative mitigation is appropriate for the find. Treatment for most resources could consist of (but shall not be limited to) sample excavation, site documentation, and historical research, as appropriate to the discovered resource. The treatment plan shall include provisions for analysis of data in a regional context as appropriate to the discovered resource, reporting of results within a timely manner, and dissemination of reports to local and state repositories, libraries, and interested professionals.			
Impact CUL-4: Implementation of the PRAB project could disturb human remains, including those interred outside of dedicated cemeteries.	**CPHP Mitigation Measure CUL-4: Inadvertent Discovery of Human Remains.** In the event of discovery or recognition of any human remains during ground-disturbing activities, treatment shall comply with all applicable state and federal laws. All construction activities within 100 feet shall halt and the contractor shall notify the UCSF Environmental Coordinator (EC). In accordance with PRC 5097.98, the UCSF EC shall contact the San Francisco Office of the Medical Examiner (Medical Examiner) to determine that no investigation of the cause of death is required. The Medical Examiner shall contact the Native American Heritage Commission (NAHC) within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant (MLD) from the deceased Native American. Within 48 hours, the MLD shall make recommendations to the UCSF EC of the appropriate means of treating the human remains and any grave goods. Whenever the NAHC is unable to identify an MLD, the MLD fails to make a recommendation, or the parties are unable to agree on the appropriate treatment measures, the human remains shall be reinterred with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of procedures and requirements when cultural resources are discovered during construction activities.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure if cultural resources are discovered during construction activities. Provide construction status report to Monitor upon request.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.4 Cultural Resources and Tribal Cultural Resources (cont.)				
Impact CUL-5: Implementation of the PRAB project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.	Implement CPHP Mitigation Measure CUL-3.	See CPHP Mitigation Measure CUL-3.	See CPHP Mitigation Measure CUL-3.	See CPHP Mitigation Measure CUL-3.
Impact C-CUL-1: Implementation of the CPHP, including the PRAB project, would result in cumulatively considerable impacts on cultural and/or tribal cultural resources, in combination with past, present and reasonably foreseeable future projects in the vicinity of the Parnassus Heights campus site.	**Archaeological Resources, Human Remains, and Tribal Cultural Resources.** Implement CPHP Mitigation Measures CUL-3 and CUL-4.	See CPHP Mitigation Measures CUL-3 and CUL-4.	See CPHP Mitigation Measures CUL-3 and CUL-4.	See CPHP Mitigation Measures CUL-3 and CUL-4.
EIR Section 4.6 Geology and Soils				
Impact GEO-3: The PRAB project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving landslides.	**CPHP Mitigation Measure GEO-3:** UCSF shall implement the following geotechnical recommendations as adapted from those contained within the Rutherford & Chekene March 2019 report: • Remove selected trees located on or at the crest of steep rock slopes on which tree root wedging decreases stability. Determination of specific trees to be removed shall be made in association with a certified arborist and state licensed geotechnical engineer or engineering geologist. Removal will involve cutting trees and leaving stumps such that the root system can rot in situ with minimal disturbance to the surface geology. • Conduct qualitative monitoring of identified slopes by a state licensed geotechnical engineer or engineering geologist or as directed by said professional. Monitoring shall occur, at a minimum, after each major storm or earthquake, as defined by the geotechnical professional. The geotechnical professional shall submit a report of findings to UCSF that includes recommendations for additional slope stability improvements, if deemed necessary, to maintain continued safety in accordance with geotechnical standards and building code requirements.	For CPHP projects proposed adjacent to the Reserve that would involve excavation or slope cut excavation, project-specific geotechnical evaluations shall be prepared as part of the design process and include evaluations of potentially affected slopes, recommendations for tree removal on or at the crest of steep rock slopes, and recommendations for monitoring frequency.	A state-licensed geotechnical engineer in consultation with certified arborist, shall report to the UCSF Project Manager.	The UCSF Project Manager shall submit the results of each tree assessment and slope evaluation to the Monitor.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.6 Geology and Soils (cont.)				
Impact GEO-6: Construction associated with the PRAB project could have the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**CPHP Mitigation Measure GEO-6:** Prior to commencement of construction activities, all on-site personnel shall attend a mandatory pre-project training to outline the general paleontological sensitivity of the project area. The training will include a description of the types of resources that could be encountered and the procedures to follow in the event of an inadvertent discovery of resources. If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified paleontologist meeting the Society of Vertebrate Paleontology (SVP) Standards can assess the nature and importance of the find and, if necessary, develop appropriate salvage measures in conformance with SVP standards (2010). If the discovery can be avoided and no further impacts will occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is "unique" under CEQA. Any discovered paleontological resources that are determined by the qualified paleontologist to be "unique" in accordance with CEQA shall be given appropriate salvage measures in conformance with SVP standards (2010).	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of procedures and requirements when paleontological resources are discovered during construction activities.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure if paleontological resources are discovered during construction activities. Provide construction status report to Monitor upon request.
Impact C-GEO-1: Implementation of the CPHP, including the PRAB project, could have the potential to combine with past, present and reasonably foreseeable future projects to result in cumulatively considerable impacts related to geology and soils.	Implement CPHP Mitigation Measure GEO-6.	See CPHP Mitigation Measure GEO-6.	See CPHP Mitigation Measure GEO-6.	See CPHP Mitigation Measure GEO-6.
EIR Section 4.7 Greenhouse Gas Emissions				
Impact GHG-1: Implementation of the CPHP, including the PRAB project, would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	**CPHP Mitigation Measure GHG-1a: Emission Reduction Measures to supplement those currently included in GHGRS update that would occur as part of the proposed amendment to the 2014 LRDP under the CPHP.** The GHGRS update shall include the following measure identified in Table 4.7-4 to address long-term GHG emissions reductions:	To be implemented under the CPHP MMRP	UCSF GHGRS Manager	To be completed under the CPHP MMRP

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.7 Greenhouse Gas Emissions (cont.)				
Impact GHG-1 (cont.)	• ***Water Conservation Strategies*:** Campus design principle WC2 of the CPHP identifies storm water capture and treatment to reduce water demand. UCSF shall amend the GHGRS to include a Water Conservation Measure based on storm water capture and the associated reduction in outdoor water demand. A year 2050 target of 3 percent reduction of overall outdoor water use shall be established.			
	CPHP Mitigation Measure GHG-1b: Implement CPHP Mitigation Measure AIR-2a: Project-Level Operational Measures, CPHP Mitigation Measure AIR-2b: TDM Program Enhancements, and CPHP Mitigation Measure AIR-5: Implement "cool roof and pavement" design elements to further reduce emissions from individual projects and mobile sources.	See CPHP Mitigation Measures AIR-2a, AIR-2b, and AIR-5.	See CPHP Mitigation Measures AIR-2a, AIR-2b, and AIR-5.	See CPHP Mitigation Measures AIR-2a, AIR-2b, and AIR-5.
	CPHP Mitigation Measure GHG-1c: Monitor emissions annually and acquire carbon offset credits in conformance with CARB guidance, prioritizing local and in-State offsets to achieve and maintain carbon neutrality for the Parnassus Heights campus site under the CPHP. As part of this mitigation measure, UCSF is making the following separate, though overlapping, GHG emission reduction commitments: (1) As a CARB-covered entity, UCSF will maintain compliance with CARB's cap and trade program; (2) Per existing UC Policy, UCSF's Scope 1 and Scope 2 GHG emissions shall, commencing in 2025, be entirely carbon neutral; (3) Also per existing UC Policy, commencing in 2020, UCSF's Scope 1, Scope 2, and Scope 3 emissions from commuters and air travel shall be voluntarily offset; and (4) UCSF's total GHG operational emissions from all Scope 1, 2, and 3 sources (as defined in this EIR) shall not exceed the Parnassus Heights campus's baseline emissions from these sources in 2018. Each of these commitments is described in more detail below. **Compliance with CARB's Cap and Trade Program:** Any carbon offset credits purchased for the purpose of compliance with CARB's cap and trade program shall be purchased from an accredited carbon credit market. Such offset credits (or California Carbon Offsets) shall be registered with, and retired[1] by an Offset	To be implemented under the CPHP MMRP	UCSF GHGRS Manager	To be completed under the CPHP MMRP

[1] When Climate Reserve Tonnes (CRTs) are transferred to a retirement account in the Reserve System, they are considered retired. Retirement accounts are permanent and locked to prevent a retired CRT from being transferred again. CRTs are retired when they have been used to offset an equivalent ton of emissions or have been removed from further transactions on behalf of the environment.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.7 Greenhouse Gas Emissions (cont.)				
Impact GHG-1 (cont.)	Project Registry, as defined in 17 California Code of Regulations § 95802(a), approved by the California Air Resources Board such as, but not limited to, Climate Action Reserve, American Carbon Registry or Verra (formerly Verified Carbon Standard). In order to demonstrate that the carbon offset credits provided are real, permanent, additional, quantifiable, verifiable, and enforceable, as those terms are defined in 17 California Code of Regulations § 95802(a), UCSF shall document in its annual report: (i) the protocol used to develop those credits, and (ii) the third-party verification report concerning those credits. As and when the credits are retired, UCSF shall document in its annual report the unique serial numbers of those credits showing that they have been retired. **Compliance with UC Policy:** Compliance with UC's policies for carbon neutrality by 2025 and UC's own policy to reduce Scope 1, 2, and transportation-related Scope 3 emissions below 1990 levels pursuant to AB 32 will be accomplished through reductions in direct emissions, the purchase of renewable electricity and possibly biomethane, and the purchase of carbon offset credits. UCSF will purchase voluntary carbon offset credits as the final action to reach the GHG emission reduction targets. As part of the UC Carbon Neutrality Initiative, internal guidelines have been developed to ensure that any use of offsets for this purpose will result in additional, verified GHG emissions reductions from actions that align, as much as possible, with UC's research, teaching, and public service mission. Specifically, any voluntary carbon offset credits used by UCSF to mitigate GHG emissions will: 1. Prioritize local (within the air district) and in-state offset credits over in-nation offset credits. Offset credits shall be third-party verified by a major registry recognized by CARB such as CAR (Climate Action Reserve). If sufficient local and in-state offset credits are not available, UCSF will purchase CARB conforming national offset credits registered with an approved registry. 2. Be reported publicly and tracked through the Climate Registry (TCR) as required by UC policy. TCR is a non-profit organization governed by U.S. states and Canadian provinces and territories. UCSF's TCR reports will be third-party verified and posted publicly.			

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.7 Greenhouse Gas Emissions (cont.)				
Impact GHG-1 (cont.)	**Commitment to control Parnassus Heights Annual Emissions to not exceed existing baseline:** UCSF shall annually monitor Parnassus Heights campus-wide GHG operational emissions from all Scope 1, 2 and 3 sources (as defined in this EIR [Scope 1 emissions include on-site natural gas combustion, vehicle fuel use, and fugitive emissions from equipment; Scope 2 emissions are from off-site energy generation; and Scope 3 emissions are indirect emissions not covered in Scope 2, including commuting and other travel, electricity transmission and distribution losses, off-site wastewater treatment, and off-site municipal solid waste disposal], commencing in 2025 upon the completion and occupancy of the first project under the CPHP. The estimated annual emissions shall be compared to the year 2018 baseline of 125,426 MT CO_2e per year to determine whether the emissions have increased above the baseline level. For the identified amount of exceedance of the performance standard, UCSF shall purchase carbon offset credits sufficient to maintain carbon neutrality. These offset credits shall be purchased for the types of Scope 1 and Scope 3 emissions that are already reported to and verified by a third-party verification body annually, as well as for Scope 3 emissions from patient and visitor vehicle trips, indirect emissions from water and wastewater demand, and solid waste emissions, all of which are included in the EIR analysis above as required by CEQA. Carbon offset credits used for this purpose shall originate from a voluntary carbon credit registry that TCR recognizes such as: CAR, ACR, or Verra (other registries are also applicable). Offset credits in this case shall be registered, transferred, and retired at such registries. The protocols of each registry, and UC own internal screens, shall be used to demonstrate that the carbon offset credits provided are real, permanent, additional, and have been independently verified as adhering to its applicable project protocols. For this purpose, local (within the air district) and in-state carbon offset credits shall be prioritized over in-nation offset credits. If sufficient local and in-state offset credits are not available, UCSF will purchase CARB conforming national offset credits registered with an approved registry. As and when the credits are retired, UCSF shall document in its annual report the unique identifier of those credits showing that they have been retired and accepted by TCR.			

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.8 Hazards and Hazardous Materials				
Impact HAZ-1: Construction and operation of the PRAB project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	**CPHP Mitigation Measure HAZ-1:** An Excavation Management Plan shall be prepared by a qualified consultant to include the California Air Resource Board (CARB) Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations to minimize naturally occurring asbestos through the application of best management practices for fugitive dust from construction, grading and excavation operations. Unless site specific testing by a certified laboratory can demonstrate the absence of naturally occurring asbestos in materials to be excavated, construction specifications shall include implementation of this CARB ATCM.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of procedures and requirements for managing naturally occurring asbestos.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure for managing naturally occurring asbestos during ground-disturbing activities. Provide construction status report to Monitor upon request.
Impact HAZ-4: The PRAB project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, previously unknown contamination could be encountered during construction and could have the potential to create a significant hazard to the public or the environment.	**CPHP Mitigation Measure HAZ-4:** Prior to development on the Parnassus Heights campus site under the CPHP, a Soil Management Plan shall be prepared by a qualified environmental consulting firm to reflect current regulatory requirements and risk management protocols that are in accordance with Regional Water Quality Control Board oversight. The Plan shall include measures to address protocols for identifying, handling, and characterizing suspect contaminated soils. Notification and sampling requirements for adequate characterization shall be in accordance with the overseeing agency (RWQCB or SFDEH) requirements and any required removal or remediation work shall be completed to the overseeing agency's standards prior to occupancy of the new structure.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate knowledge of procedures and requirements for soil management with respect to suspected soil contamination.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for implementation of mitigation measure for managing suspected soil contamination during ground-disturbing activities. Provide construction status report to Monitor upon request.
EIR Section 4.9 Hydrology and Water Quality				
Impact HYD-1: Construction and operation of the PRAB project would have the potential to violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality.	**CPHP Mitigation Measure HYD-1:** During implementation of the CPHP, UCSF shall continue to implement water conservation measures and construct and implement stormwater management controls as needed so as to: a. Avoid increasing the likelihood of surcharges by exceeding the capacity of the City's CSS; b. Avoid increasing the extent or duration of ponding or overland flow by exceeding the capacity of the City's CSS; and c. Avoid discharges to the City's CSS that could increase the frequency, duration, or volume of combined sewer discharges to the receiving waters. To meet the first two (hydraulic) performance standards, UCSF shall design all new on-campus buildings and site improvements to be consistent with requirements of the City's Stormwater Management Ordinance (Article 4.2 of the San Francisco Public	Prior to implementation of the CPHP, use SFPUC's model to establish a baseline of stormwater and wastewater flows from the campus site. Starting with the Initial Phase, and thereafter, at every major phase of the CPHP (or every five years, whichever is more frequent) use SFPUC's model to estimate stormwater and/or wastewater flows from the campus site and submit the analysis to the SFPUC for review (or request that the SFPUC conduct the analysis on UCSF's behalf).	UCSF Project Manager and Design and Construction Teams	Provide written verification in report form to the Monitor that the project has been designed to include improvements that will ensure project compliance with the mitigation measure. Provide construction status report to Monitor upon request.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.9 Hydrology and Water Quality (cont.)				
Impact HYD-1 (cont.)	Works Code), ensuring that the stormwater runoff rate and volume from the project shall not exceed pre-development conditions for the 1- and 2-year, 24-hour design storm (the standard for sites that are less than 50 percent impervious). In addition, when connections to the City's CSS are being designed, UCSF shall analyze the capacity of the adjoining sewer system to ensure that the system can accommodate UCSF's increased flows and/or modified connection points. UCSF may choose to conduct this modeling analysis on its own and submit the analysis to the SFPUC for review, or request that the SFPUC conduct the analysis on UCSF's behalf, subject to reimbursement of the SFPUC's costs by UCSF. If the analysis determines that increased flows may exceed the conveyance capacity of the adjoining downstream sewers, UCSF shall pay its proportional share of the costs of expanding the sewer system to accommodate the increased flows from the Parnassus Heights campus site. To meet the third (hydrologic) performance standard, UCSF shall ensure that the total volume of stormwater discharges from the Parnassus Heights campus site in wet weather is decreased by an amount sufficient to offset flows from any increase in impervious surfaces and any increases in wastewater discharges as a result of the CPHP. Necessary reductions may be achieved via LID, on-site detention and re-use, on-site detention for discharge, and/or other strategies in conformance with the City's Stormwater Management Ordinance, and may be less than the total wet weather discharges from Parnassus Heights campus site if modeling demonstrates there is sufficient storage, pumping, and treatment capacity in the City's CSS to avoid increased discharges to the receiving waters from the CSS discharge structures. UCSF shall use the SFPUC's model to establish a baseline prior to implementation of the CPHP and to demonstrate that future incremental increases in stormwater and/or wastewater from the campus site under the CPHP would not cause or contribute to any increase in overflow volumes from the City's CSS discharge structures, as determined through modeling at every major phase of the CPHP (starting with the Initial Phase) or every five years, whichever is more frequent, through CPHP buildout. UCSF may choose to conduct this modeling analysis on its own and submit the analysis to the SFPUC for review, or request that the SFPUC conduct the analysis on UCSF's behalf, subject to reimbursement of the SFPUC's costs by UCSF. In the event of non-compliance, UCSF shall immediately take steps to remedy the deficiency and	Incorporate building and site improvements, consistent with City's Stormwater Management Ordinance, to ensure performance standards in the mitigation measure are met.		

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.9 Hydrology and Water Quality (cont.)				
Impact HYD-1 (cont.)	provide reports to the SFPUC in conjunction with each construction project undertaken to implement the CPHP until the performance standard is met. Any improvements constructed outside the campus site boundary or in public right of way in the City's jurisdiction shall be subject to construction site runoff requirements and post-construction stormwater controls in accordance with the City Public Works Code and in compliance with the City's Stormwater Management Ordinance, and shall be included in UCSFs calculation of the total volume of increased flows to be offset and its modeling of incremental increases in flows into the City's CSS.			
Impact HYD-2: Construction and operation of the PRAB project would not substantially alter the existing drainage patterns of the site or area, in a manner that has the potential to result in substantial erosion or siltation on- or off- site; would potentially substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site; would potentially create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flow.	Implement CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.
Impact C-HYD-1: Construction and operation of campus development under the CPHP, including the PRAB project, in conjunction with other cumulative development within the City of San Francisco, would have the potential to cumulatively violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.	Implement CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.9 Hydrology and Water Quality (cont.)				
Impact C-HYD-2: Construction and operation of campus development under the CPHP, including the PRAB project, in conjunction with other cumulative development in the City of San Francisco's CSS, would not have the potential to cumulatively alter the drainage pattern of the site or area, through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site; would have the potential to substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; 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 impede or redirect flow.	Implement CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.	See CPHP Mitigation Measure HYD-1.
EIR Section 4.11 Noise and Vibration				
Impact NOI-1: Construction activities for the PRAB project would generate a substantial temporary increase in ambient noise levels in the vicinity of the construction project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**CPHP Mitigation Measure NOI-1a: Construction Noise Control Measures.** UCSF contractors shall employ site-specific noise attenuation measures during construction of projects under the CPHP to reduce the generation of construction noise. These measures shall be included in a Noise Control Plan that shall be submitted for review and approval by UCSF to ensure that construction noise is consistent with the standards set forth in the City's Noise Ordinance. Measures specified in the Noise Control Plan and implemented during project construction shall include, at a minimum, the following noise control strategies: • Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds. • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will prepare a construction noise control plan to report on the implementation of the mitigation measure.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for construction noise control. Provide a report on construction noise control to Monitor upon request; but no less than quarterly after beginning each construction activity.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

<table>
<tr><th>Environmental Impact</th><th>Mitigation Measures</th><th>Implementation Procedure</th><th>Responsible Unit</th><th>Report Mechanism</th></tr>
<tr><td colspan="5">EIR Section 4.11 Noise and Vibration (cont.)</td></tr>
<tr><td>Impact NOI-1 (cont.)</td><td>Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used where feasible.
• Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.
• Shield staging areas where adjacent sensitive receptors have direct line-of-sight with loading and delivery activities. Shielding may consist of plywood fencing with no gaps or acoustical paneling erected in K-rails.</td><td></td><td></td><td></td></tr>
<tr><td></td><td>CPHP Mitigation Measure NOI-1b: Construction Hours. Construction hours shall be restricted to the hours listed in the table below. In rare circumstances, work may need to occur outside of these work hour limits. In such cases, UCSF Community and Government Relations will receive advance notice from the project manager, at least one week in advance as feasible, and will engage the community to identify measures to minimize potential impacts. These measures may include, but not be limited to, restricting work to smaller time windows, condensing the overall duration of nighttime work to the degree feasible, and erecting temporary barriers to shield the short-term nighttime activity.
<table>
<tr><th colspan="5">Construction Hours</th></tr>
<tr><th></th><th colspan="2">“Not Noisy” Work[1]</th><th colspan="2">Noisy Work</th></tr>
<tr><th></th><th>Regular hours</th><th>Extended hours[2]</th><th>Regular hours</th><th>Extended hours[1]</th></tr>
<tr><td>Monday - Friday</td><td>7:00 a.m. to 5:00 p.m.</td><td>5:00 p.m. to 8:00 p.m.</td><td>8:00 a.m. to 5:00 p.m.</td><td></td></tr>
<tr><td>Saturday</td><td></td><td>8:00 a.m. to 5:00 p.m.</td><td></td><td>9:00 a.m. to 4:00 p.m.</td></tr>
<tr><td>Sunday</td><td></td><td>8:00 a.m. to 5:00 p.m.</td><td></td><td></td></tr>
</table>
[1] “Not Noisy” work = 80 decibels or less at 100 feet; “Noisy” work = more than 80 decibels at 100 feet.
[2] Extended hours to be considered by UCSF Community and Government Relations with advance notice from the project manager.</td><td>Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will prepare a construction noise control plan to report on the implementation of the mitigation measure.</td><td>UCSF Project Manager and Construction Teams</td><td>Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for construction noise control through limitations on construction hours (may be incorporated into report for Mitigation Measure NOI-1a). Provide a report on construction noise control to Monitor upon request; but no less than quarterly after beginning each construction activity (may be incorporated into report for Mitigation Measure NOI-1a).</td></tr>
</table>

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.11 Noise and Vibration (cont.)				
Impact NOI-1 (cont.)	**CPHP Mitigation Measure NOI-1c: Pile-Installation Noise-Reducing Techniques.** Noise-reducing pile-installation techniques shall be employed during project construction. These techniques shall include: • Installing cast-in-place concrete piles. Noise from auger drilling is 17 dBA less than an impact pile driver. • Vibrating piles into place, and installing shrouds around the pile-driving hammer where feasible. • Implement "quiet" pile-installation technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile installation duration).	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate understanding of means of reducing pile-installation noise.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for construction noise control with respect to pile installation (may be incorporated into report for Mitigation Measure NOI-1a). Provide a report on construction noise control to Monitor upon request; but no less than quarterly after beginning each construction activity (may be incorporated into report for Mitigation Measure NOI-1a).
	Implement CPHP Mitigation Measure TRANS-5: Construction Coordination and Monitoring Measures–Construction Traffic Control Plan.	See CPHP Mitigation Measure TRANS-5.	See CPHP Mitigation Measure TRANS-5.	See CPHP Mitigation Measure TRANS-5.
Impact NOI-2: Implementation of the PRAB project would generate substantial permanent increases in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**CPHP Mitigation Measure NOI-2: Operational Noise Control.** For all development projects under the CPHP, mechanical equipment shall be selected and designed to meet the City's Police Code requirements of 8 dBA over existing ambient noise levels without the equipment operating as well as an interior noise standard at any sleeping or living room in any dwelling unit located on residential property of 45 dBA between 10:00 p.m. and 7:00 a.m., and 50 dBA between 7:00 a.m. and 10:00 p.m. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary to reduce noise to comply with the City's Police Code. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels; installation of noise barriers such as enclosures and parapet walls to block the line of sight between the noise source and the nearest receptors; and siting the mechanical equipment, including intake and exhaust portals for fixed mechanical equipment, as far as possible from the nearby existing sensitive receptors (i.e., west side of building).	Retain, or cause to be retained as part of the mechanical systems design for each new building or building renovation that includes installation of new mechanical equipment, a qualified acoustical consultant to evaluate noise generation characteristics of new mechanical systems and to ensure that noise levels comply with the City's Police Code. Following commissioning of new mechanical equipment, conduct noise measurements to ensure Police Code compliance.	UCSF Project Manager and Design Teams	Provide written verification in report form to the Monitor that the selected mechanical equipment will comply with the City's Police Code, including enumeration and evaluation of any required noise control or reduction measures. Following commissioning of new mechanical equipment, provide written verification in report form to the Monitor that the selected mechanical equipment does comply with the City's Police Code. If non-compliance is detected, identify and install additional noise reduction features.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.11 Noise and Vibration (cont.)				
Impact NOI-3: Construction activities for the PRAB project could result in generation of excessive groundborne vibration or groundborne noise levels.	**CPHP Mitigation Measure NOI-3a: Limited Use of Vibratory Rollers.** UCSF shall require that contractors use (non- vibratory) excavator mounted compaction wheels mounted on an excavator or back-hoe and/or small, smooth drum rollers for final compaction of any asphalt base and asphalt concrete within 25 feet of a historic or older structure. If needed to meet compaction requirements, smaller, non-seated vibratory rollers shall be used to minimize vibration levels during repaving activities where needed to meet a vibration standard of 0.25 PPV at adjacent historic or older structures.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate the ability to limit use of vibratory rollers proximate to historic and older structures.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes provisions for limiting use of vibratory rollers (may be incorporated into report for Mitigation Measure NOI-1a). Provide a report on construction vibration control to Monitor upon request; but no less than quarterly after beginning each construction activity (may be incorporated into report for Mitigation Measure NOI-1a).
	CPHP Mitigation Measure NOI-3b: Assessment and Relocation/Retrofitting of Vibration-Sensitive Equipment. UCSF shall evaluate the presence of vibration-sensitive equipment within 150 feet of construction and demolition areas. Any sensitive equipment shall be evaluated for the existing extent of vibration isolation and relocated or further embellish isolation, as warranted. Alternatively, use of such equipment may be suspended during the substantial vibration-generating activities within 150 feet.	Prior to the start of any demolition or construction activity, identify vibration-sensitive equipment within 150 feet, assess the vibration isolation of such equipment, and enhance isolation if deemed necessary.	UCSF Project Manager	Provide written verification in report form to the Monitor that vibration-sensitive equipment within 150 feet of construction and demolition and, if deemed necessary, of provisions to enhance vibration isolation; or alternatively, that equipment is suspended during substantial vibration-generating activities within 150 feet.
Impact C-NOI-1: Implementation of the CPHP, including the PRAB project, combined with cumulative construction noise in the project area, would generate a substantial temporary increase in ambient noise levels from construction activity in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Implement CPHP Mitigation Measures NOI-1a, NOI-1b, and CPHP Mitigation Measure TRANS-5: Construction Coordination and Monitoring Measures.	See CPHP Mitigation Measures NOI-1a, NOI-1b, and TRANS-5.	See CPHP Mitigation Measures NOI-1a, NOI-1b, and TRANS-5.	See CPHP Mitigation Measures NOI-1a, NOI-1b, and TRANS-5.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.11 Noise and Vibration (cont.)				
Impact C-NOI-2: Implementation of the CPHP, including the PRAB project, combined with cumulative development in the project area, would generate substantial permanent increases in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Implement CPHP Mitigation Measure NOI-2.	See CPHP Mitigation Measure NOI-2.	See CPHP Mitigation Measure NOI-2.	See CPHP Mitigation Measure NOI-2.
Impact C-NOI-3: Implementation of the CPHP, including the PRAB project, combined with cumulative construction in the project area, would result in generation of excessive groundborne vibration or groundborne noise levels.	Implement CPHP Mitigation Measure NOI-3a and CPHP Mitigation Measure NOI-3b.	See CPHP Mitigation Measure NOI-3a and CPHP Mitigation Measure NOI-3b.	See CPHP Mitigation Measure NOI-3a and CPHP Mitigation Measure NOI-3b.	See CPHP Mitigation Measure NOI-3a and CPHP Mitigation Measure NOI-3b.
EIR Section 4.15 Transportation				
Impact TRANS-5: Construction activities for the PRAB project could temporarily impact travel conditions along sidewalks and roadways serving the campus site.	**CPHP Mitigation Measure TRANS-5: Construction Coordination and Monitoring Measures** ***Construction Traffic Control Plan*** – In order to reduce potential conflicts between construction activities and pedestrians, transit and autos during construction activities at the Parnassus Heights campus site, UCSF shall require construction contractor(s) to prepare a traffic control plan for major phases of project construction (e.g., demolition, construction, or renovation of individual buildings). UCSF and their construction contractor(s) will meet with relevant City agencies to coordinate feasible measures to reduce traffic congestion, including temporary transit stop relocations (e.g., Parnassus Avenue) and other measures to reduce potential traffic and transit disruption and pedestrian circulation effects during major phases of construction of the CPHP projects. For any work within the public right-of-way, the contractor would also be required to comply with the City of San Francisco's *Regulations for Working in San Francisco Streets*, which establish rules and permit requirements so that construction activities can be done safely and with the least possible interference with pedestrians, bicyclists, transit, and vehicular traffic.	Issue instructions in each bid package of each construction project for contractors to incorporate the mitigation measure. The successful contractor will demonstrate the ability to prepare a complete and thorough Construction Traffic Control Plan that addresses traffic, transit, pedestrian, and bicycle movement; incorporates measures to limit single-occupancy vehicle travel by construction workers; and ensures minimal disruption of access for nearby residences, institutions, and businesses.	UCSF Project Manager and Construction Teams	Provide written verification in report form to the Monitor for each contract bid on each phase to certify that selected bid includes a complete and thorough Construction Traffic Control Plan. Provide a report on construction traffic control to Monitor upon request; but no less than quarterly after beginning each construction activity.

TABLE 1 (CONTINUED)
PRAB PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impact	Mitigation Measures	Implementation Procedure	Responsible Unit	Report Mechanism
EIR Section 4.15 Transportation (cont.)				
Impact TRANS-5 (cont.)	***Reduce Drive Alone Mode Share for Construction Workers*** – In order to minimize parking demand and vehicle trips associated with construction workers, UCSF shall require the construction contractor to include in the Construction Traffic Control Plan methods to encourage walking, bicycling, carpooling, and transit access to the campus site by construction workers. ***Project Construction Updates for Adjacent Residents and Businesses*** – In order to minimize construction impacts on access for nearby residences, institutions, and businesses, UCSF shall provide nearby residences and businesses with regularly-updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours, excavation),and travel lane closures via a newsletter, website, and/or quarterly construction update meetings with neighbors.			