

Office of the President

TO MEMBERS OF THE FINANCE AND CAPITAL STRATEGIES COMMITTEE:

ACTION ITEM

For Meeting of March 16, 2022

WORKING DRAWINGS FUNDING, SCOPE, STANDBY FINANCING, AND DESIGN FOLLOWING ACTION PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND MAKE-READY CONSTRUCTION FUNDING; GATEWAY NEW ACADEMIC BUILDING, BERKELEY CAMPUS

EXECUTIVE SUMMARY

The Berkeley campus proposes to construct the 375,600-gross-square-foot (213,000-assignable-square-foot) Gateway New Academic Building (formerly Data Hub New Academic Building). The building is critical to support growing enrollment in the Division of Computing, Data Science, and Society. The project enables future seismic improvement projects in other campus buildings by constructing new, replacement space for programs currently housed in buildings requiring seismic improvements. The project would create a place for teaching, learning, and discovery that inspires ideation, generates new connections, and builds trust, allowing all students to find a place of belonging and a welcoming community that expands opportunity. The entire project would incorporate electrification and would not utilize natural gas for building heat or hot water generation to comply with the fossil-fuel-free provision of the UC Sustainable Practices policy.

The Regents approved preliminary plans funding for \$30 million, funded through gifts, at the November 2020 meeting. The Regents are being asked to, for the entire project: (1) approve working drawings funding of \$25.13 million to be funded by gift funds; (2) approve the scope; (3) adopt the California Environmental Quality Act Findings; (4) make a condition of approval the implementation of applicable mitigation measures within the responsibility and jurisdiction of UC Berkeley as identified in the Mitigation Monitoring and Reporting Program adopted in connection with the 2021 Long Range Development Plan and Housing Projects #1 and #2 Environmental Impact Report; and (5) approve the design. The Regents are also being asked to approve construction funding of \$9.15 million to be funded from gift funds for the Site Make-Ready portion of the project and to approve financing of \$64.28 million.

These approvals would enable the completion of construction documents and initial site preparation by late 2022, which is critical to avoid future schedule and cost impacts to the project. Approval of the project's full budget would be requested at a future Regents meeting, projected later in 2022.

RECOMMENDATION

The President of the University recommends that the Finance and Capital Strategies Committee recommend to the Regents that:

- A. The 2021-22 Budget for Capital Improvements and Capital Improvement Program be amended as follows:

From: Berkeley: Data Hub New Academic Building – preliminary plans – \$30 million to be funded from gift funds.

To: Berkeley: Gateway New Academic Building – preliminary plans and working drawings for the entire project, and construction of the Site and Make-Ready Work portion of the project – \$64.28 million to be funded by gift funds.

- B. The scope of the Gateway New Academic Building project be approved. The project shall provide an academic building of approximately 375,600 gross square feet (213,000 assignable square feet(asf)) comprised of office space (75,000 asf), meeting space (75,000 asf); research laboratories (15,000 asf); classrooms (19,000 asf); study space (12,000 asf); and other support and shared spaces to support occupants (17,000 asf); and (4) public realm and circulation improvements, including an improved campus entry at Hearst Avenue; improvements to Bayard Rustin Way and MacFarlane Lane; and landscape and public gathering spaces throughout the site. The scope of the Site and Make-Ready portion of the project shall include permanent power, storm drain connections, demolition of the Wellman Hall Courtyard trailers, and fiber optic line relocation.

- C. Standby financing be approved in an amount not to exceed \$64.28 million plus related interest expense and additional related financing costs to finance the Gateway New Academic Building project. The Berkeley campus shall satisfy the following requirements:

- (1) Interest only, based on the amount drawn, shall be paid on the outstanding balance during the construction period.
- (2) Repayment of any debt shall be from gift funds. As gifts are received, the campus will reimburse the standby financing in a timely fashion. If gift funds are insufficient and some or all of the debt remains outstanding, then campus funds shall be used to pay the debt service and to meet the related requirements of the authorized financing.
- (3) As long as the debt is outstanding, the general revenues of the Berkeley campus shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing.

- (4) The general credit of the Regents shall not be pledged.
- D. Following review and consideration of the environmental consequences of the Gateway New Academic Building project as required by the California Environmental Quality Act (CEQA), including any written information addressing this item received by the Office of the Secretary and Chief of Staff to the Regents no less than 48 hours in advance of the beginning of this Regents meeting, testimony or written materials presented to the Regents during the scheduled public comment period, and the item presentation, the Regents:
- (1) Adopt the CEQA Findings for the Gateway New Academic Building project, having considered both the UC Berkeley 2021 Long Range Development Plan and Housing Project #1 and #2 Environmental Impact Report (2021 LRDP EIR) and Addendum #1 to the 2021 LRDP EIR for the Gateway New Academic Building project.
 - (2) Make a condition of approval the implementation of applicable Mitigation Measures and Continuing Best Practices within the responsibility and jurisdiction of UC Berkeley as identified in the Mitigation Monitoring and Reporting Program adopted in connection with the 2021 LRDP and Housing Project #1 and #2 EIR.
 - (3) Approve the design of the Gateway New Academic Building project, Berkeley campus.

BACKGROUND

The proposed Gateway New Academic Building (formerly Data Hub New Academic Building) project will provide approximately 375,600 gross square feet (gsf) (213,000 assignable square feet (asf)) of physical space to draw together key academic units whose intellectual agendas are linked by data, computing, and artificial intelligence, and connected to a broad spectrum of participants and disciplines across the campus and beyond. The key drivers of the project include addressing seismic improvement needs, supporting enrollment levels in Division of Computing, Data Science, and Society (CDSS) aligned fields and supporting the campus's Strategic Plan.¹ The building will include space for academic research, offices, classrooms, and other collaborative meeting spaces.

The proposed project is critical to support development of affiliated academic fields and to enable future seismic improvement projects in other campus buildings in the future. The new space is critical replacement space for programs currently housed in buildings requiring seismic improvements, including Evans Hall (Seismic Performance Rating (SPR) of VI), Soda Hall (SPR of V), Cory Hall (SPR of V), and South Hall (SPR of V).

¹ Additional information may be found in the November 2020 Regents item, <https://regents.universityofcalifornia.edu/regmeet/nov20/f4.pdf>

CDSS is advancing the state of the art in computing, data science, and information and tackling urgent societal challenges in biomedicine and health, climate and sustainability, and human welfare and social justice. Its programs bring multiple voices to the table to educate diverse students to become data-driven leaders with human perspectives and purposes. Creating a place for teaching, learning, and discovery — a place that fuels inspiration and optimism, sparks fresh ideas, builds trust, and generates unexpected connections — is the top priority for the future of CDSS and the Berkeley campus. In the Gateway project, students from all areas on the campus will find a place of belonging and a welcoming community that expands opportunity.

PROJECT DESCRIPTION

Project Site

The proposed project would be located on the northwest edge of the Campus Park (refer to Project Location Map, Attachment 1A and Project Site, Attachment 1B). The site is bounded by Hearst Avenue to the north, campus academic buildings to the west and south, and University House to the east. This prominent location, which was previously developed but is currently used as temporary open space², serves as a major gateway to the campus from the north.

The project site was identified in the Berkeley 2021 Long Range Development Plan (2021 LRDP) as an area for future development. The proposed project is consistent with the land use plan of the 2021 LRDP, which prioritized development sites on the Campus Park for academic and research space.

Program

The building will house multiple disciplines affiliated with CDSS, including the Department of Electrical Engineering and Computer Sciences, Department of Statistics, School of Information, Berkeley Institute for Data Science, Data Science Education Program, the Center for Computational Biology, Data Science Undergraduate Studies, the Center for Long-Term Cybersecurity, and Data Science Commons. These occupants would be relocated to the new building from other campus spaces.

The proposed project would provide approximately 213,000 asf for approximately 1,500 faculty, students, researchers, and staff in flexible laboratory and learning facilities. The proposed project would support the enrollment in CDSS by providing a mix of flexible and operationally resilient office space, laboratories, collaboration areas, classrooms, and other meeting spaces. The project will include shared community gathering space, advising space, and classrooms to enable interactive learning and mentoring to educate a new generation of leaders.

² The site was formerly the location of Tolman Hall, an academic building that was demolished in 2018 due to its seismic performance rating. Occupants of Tolman Hall were relocated to other campus spaces, including Berkeley Way West.

The five-story building’s internal program consists of a 43,000-gsf basement level that will have a loading dock entrance, as well as the back of house space, classrooms, seminar rooms, office hours space, study space, a recording studio, bicycle storage, an MRI laboratory, and a systems research laboratory. The ground floor expands to 55,000 gsf and consists of two entries from the northerly courtyard. The entry to the west leads to research space, meeting rooms, social kitchen, and a gallery. The entry to the east is the main entry into the lobby and leads to the cafe, advising space, the Data Science Education Program, a drone laboratory, study space for undergraduates, as well as to a 300-seat and 150-seat lecture hall. Floors 2, 3, and 4 consist of approximately 70,000 gsf of offices, workstations, meeting rooms, laboratories, and collaboration space. The fifth floor will house mechanical rooms, an events center, a catering kitchen, an occupied roof terrace, meeting rooms along the north side with views of the San Francisco Bay, along with departmental workspace at the southeast side with views of the campus.

Table 1 summarizes the aggregate quantities of assignable space proposed.

Space	Assignable Square Footage	% Breakdown
Office	75,000	35%
Meeting Space	75,000	35%
Research Laboratory (Dry)	15,000	7%
Classroom	19,000	9%
Study Space	12,000	6%
General Use ⁽¹⁾	13,000	6%
Building Support ⁽²⁾	4,000	2%
Total	213,000 asf (375,600 gsf)	100%
Notes: (1) General Use includes cafe, catering kitchen, event space, and gallery. (2) Building support functions include storage, shipping and receiving, mail room, Facility Manager’s office, bicycle storage room, loading dock, and showers.		

The building space program reflects lessons learned about how space use is changing because of the shift to hybrid work that occurred during the COVID-19 pandemic. Places for collaboration and informal interaction are a high priority, as these spaces are fundamental to the in-person workplace; these are expressed as open and flexible meeting, gathering, and touchdown workspaces located within the central areas of each level’s floor plan. In addition to assigned private offices and workspaces for faculty and senior staff, the building is designed with a substantial portion of unassigned workstations that can be used by more than one person. Storage lockers are provided to accommodate users who do not have assigned desks. Approximately 60 percent of the desks in the new facility are anticipated to be shared, “hotel” workstations to support flexible working arrangements.

Design Elements

The proposed project would include five above-grade floors and one basement level. Along the Hearst Avenue frontage, the project would rise to approximately 87 feet on average; the building's highest point, the roof coping at the northwest corner, would be 91 feet from the ground. Conceived as an intellectual connector between campus and community, the building and landscape would be designed to reinforce the north edge of the Campus Park, frame the major campus gateway from the Hearst Avenue and Le Conte Avenue/Arch Street intersection, and create welcoming and accessible gathering spaces within two primary courtyards on the north and south edges of the building. The project design would be consistent with the campus's 2021 Physical Design Framework. For more information, refer to the design graphics (Attachment 3).

As a five-story building, the building's mass, orientation, and height are designed to be respectful of the character of its surroundings, including the Wellman-Giannini-Hilgard courtyard buildings and the University House, which are listed on the National Register of Historic Places. The building would have two primary wings to the east and west that frame ground floor outdoor courtyards as well as surround the internal open plan collaboration spaces. To invite people into the space, these courtyards are oriented towards the campus's surrounding landscape and pathway circulation elements. The building facade would be a mix of vision glass, etched spandrel glass, aluminum metal panels, and precast concrete and be designed to provide a high degree of energy efficiency.

The proposed building is envisioned as a new center that welcomes diverse perspectives and passions to come together and address existing and emergent challenges through data-driven research. A central connecting stair will connect multiple floors and a featured skylight will introduce natural light into the core of the building. The central stairs and ramp, as well as the open spaces surrounding them, will be opportunities for informal interaction and connection.

The landscape plan includes a mix of native and locally-adapted, drought-tolerant grasses and trees; underground public utilities along Hearst Avenue; relocation of a street traffic signal pole; and improved accessibility and emergency vehicle access routes. The building's massing will create two outdoor courtyards that support informal collaboration and interaction: a public plaza and gateway entrance to the north along Hearst Avenue and an amphitheater-style courtyard opening towards the campus to the south. Pedestrian and bicycle pathways would be improved to meet campus mobility and accessibility needs.

Site and Make-Ready Work Scope

The Site and Make-Ready (SMR) work of the proposed project includes critical scope elements that would be required before the start of construction for any project to be developed on the proposed project site. Specific scope elements include permanent power infrastructure, storm drain connections, demolition of existing vacant temporary structures, electrical rework associated with existing temporary structures, and relocation of a telecom/fiber optic duct bank. The campus is also proposing to procure site utilities, as well as an early mill order for structural

steel, metal decking, and shoring materials to expedite future construction. (See Attachment 3 for a site plan of the SMR work).

Although the SMR work would be funded and implemented by the Gateway project, the proposed site preparation would not be unique to the Gateway project design. It would not preclude other future development on the proposed project site.

Sustainability

This project will comply with the University of California Sustainable Practices Policy. The Sustainable Practices Policy establishes goals for green building, clean energy, transportation, climate protection, facilities operations, zero waste, procurement, food service, and water systems. The project's budgeting, programming, and design effort include a full range of sustainability practices for building design and operations.

The project is designed to achieve or exceed the U.S. Green Building Council's LEED™ Gold certification. The project would have an energy use intensity target of 31.5 kbtu/sf-yr or 20.4 percent beyond Title 24. The entire project would incorporate electrification and would not utilize natural gas for building heat or hot water generation to comply with the fossil-fuel-free provision of the policy. The building will have operable windows, indoor and outdoor bicycle parking, efficient mechanical systems, a central stair that connects levels 2 through 4, and will be designed to accommodate a 225 kW photovoltaic system on the roof, and a 1.2MW/2.4MWh electric battery storage system on the west side of the exterior ground level for energy resiliency.³

This project has been analyzed by the UC Operational Carbon & Energy Assessment for New Construction Tool (OCEAN Tool) (Attachment 4). The OCEAN Tool identifies high-level estimates of target site energy use, utility costs, and operational greenhouse gas emissions for the proposed project. Building performance metrics are compiled within UC's capital projects database and will be utilized to compare and assess future projects.

FUNDING PLAN, PROJECT DELIVERY, AND SCHEDULE

The total project budget would be funded through philanthropy, with a lead donor contributing \$250 million. To date, approximately \$320 million has been pledged or gifted,

To complete preliminary plans, full project working drawings and implement the SMR work, the proposed project would use \$64.28 million of gift funds supporting the project. See Attachment 2 for more information on the budget for the proposed work.

³ Solar photovoltaics and backup battery storage could be provided through a future power purchase agreement.

Approval for standby financing is sought in order to bridge the timing difference between project expenditures and receipt of gift funds. Standby financing is requested for gifts pledged, but not yet in hand. The information below concerns standby financing related to gifts.

CAMPAIGN SUMMARY	
Cash on Hand / Pledged Gifts	\$320 million
Secondary Repayment Source for Pledged Gifts	Campus funds
Term of Standby Request (# of years)	Five years

Approval of funding for the SMR scope of work, in advance of full budget approval, would ensure that the SMR scope is in place before the start of construction on the proposed project, generating significant time savings and cost savings with regard to escalation. This SMR work is critical to allow the full project to proceed with construction in 2023 and a scheduled completion date of 2026. The proposed project would return to the Regents for full budget approval before construction.

Project Schedule and Delivery

The campus is proposing to initiate construction of the SMR package in spring 2022, which is estimated to take approximately five months. The balance of bidding and construction for the Gateway New Academic Building would not begin until the project receives full budget approval. Approval of the project's full budget would be requested at a future Regents meeting, projected later in 2022.

The project is being delivered through the Construction Manager at Risk process. The campus is committed to promoting and increasing participation of small business enterprises (SBEs), which encompasses disadvantaged, disabled veteran and women owned business enterprises, in all purchasing and contract business, subject to any and all applicable obligations under State and federal law, collective bargaining agreements, and University policies. Providing qualified SBEs with the maximum opportunity to participate will be encouraged with the selected design professionals and contractors.

CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

The Regents certified UC Berkeley's 2021 Long Range Development Plan and Housing Projects #1 and #2 Environmental Impact Report (SCH# 2020040078) (2021 LRDP EIR) at their July 2021 meeting (Attachment 5). Pursuant to the California Environmental Quality Act (CEQA), Addendum #1 to the 2021 LRDP EIR has been prepared for the Gateway New Academic Building project (Attachment 6). None of the circumstances that would trigger subsequent or supplemental environmental review under Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 or 15163 have occurred or are present. Findings have been prepared

to support the University's determination that the proposed project would not require major revisions of the 2021 LRDP EIR (Attachment 7).

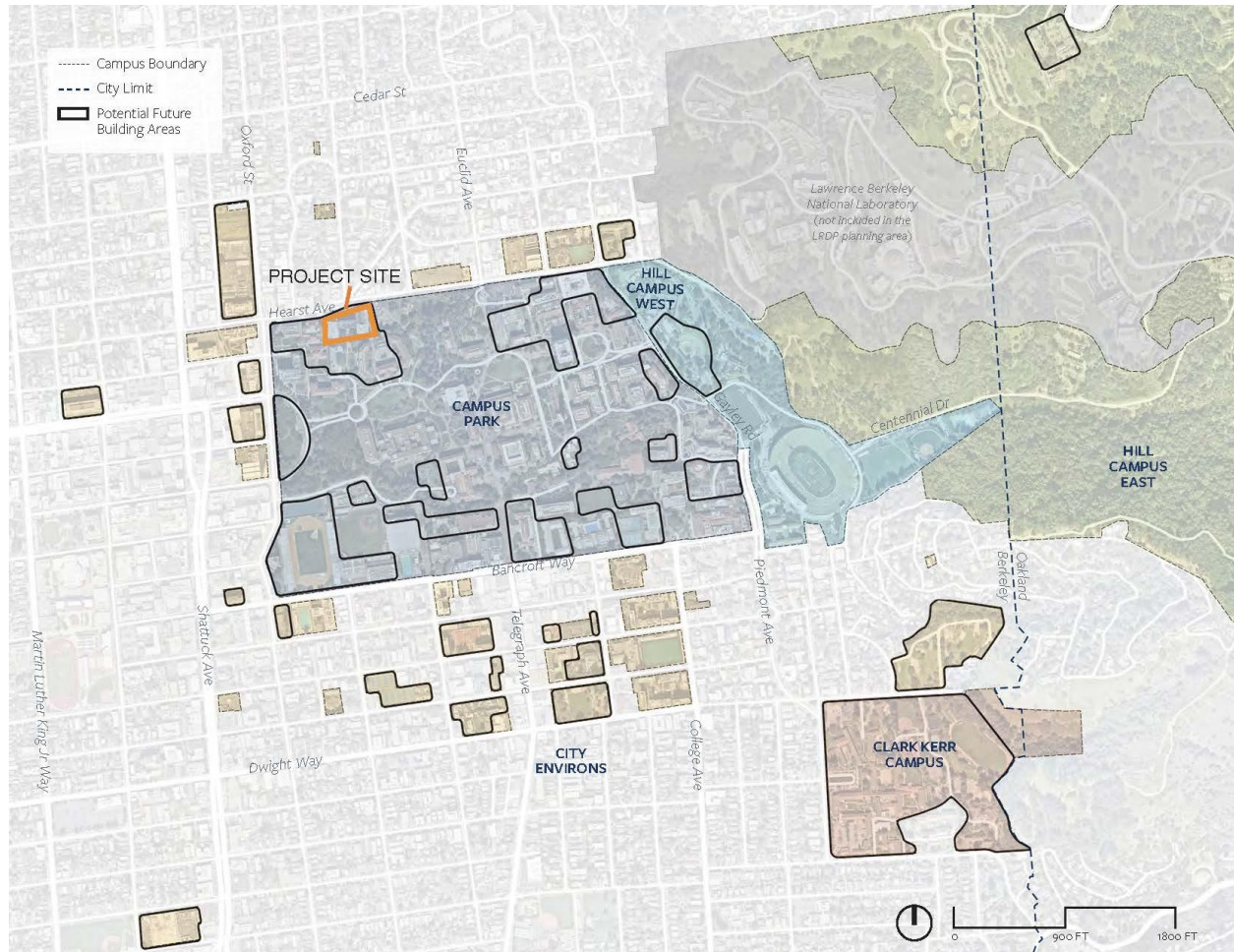
Key to Acronyms

2021 LRDP	2021 Long Range Development Plan
ASF	Assignable Square Feet
CDSS	Division of Computing, Data Science, and Society
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
OCEAN Tool	UC Operational Carbon & Energy Assessment for New Construction Tool
GSF	Gross Square Feet
LEED TM	Leadership in Energy and Environmental Design
SBE	Small Business Enterprise
SMR	Site and Make-Ready
SPR	Seismic Performance Rating

ATTACHMENTS

Attachment 1A:	Location Map
Attachment 1B:	Project Site
Attachment 2:	Preliminary Plans and Working Drawings Budget for Entire Project Construction Budget for Site Make-Ready Portion of Project
Attachment 3:	Design Graphics
Attachment 4:	UC Carbon Estimation Tool Report
Attachment 5:	UC Berkeley 2021 Long Range Development Plan and Housing Projects #1 and #2 Environmental Impact Report (2021 LRDP EIR) and Mitigation and Monitoring and Reporting Program (Link)
Attachment 6:	Addendum #1 to the 2021 LRDP EIR https://capitalstrategies.berkeley.edu/sites/default/files/2021lrdeir_addendum1-gatewaynewacademicbuilding-final_withappendices.pdf
Attachment 7:	CEQA Findings

PROJECT LOCATION MAP



PROJECT SITE



**PRELIMINARY PLANS AND WORKING DRAWINGS BUDGET
FOR ENTIRE PROJECT**

**CONSTRUCTION BUDGET
FOR SITE MAKE-READY PORTION OF PROJECT**

GATEWAY NEW ACADEMIC BUILDING

Project Sources	November 2020 Approved Preliminary Plans For Total Project	March 2022 Proposed Working Drawings for Total Project	March 2022 Proposed Construction for SMR Portion	Total
Gift Funds	\$30,000,000	\$25,130,000	\$9,150,000	\$64,280,000

Project Uses	November 2020 Approved Preliminary Plans For Total Project	March 2022 Proposed Working Drawings for Total Project	March 2022 Proposed Construction for SMR Portion	Total
Site Clearance	-	-	-	-
Building	\$600,000	\$12,030,000	\$6,640,000	\$19,270,000
Exterior Utilities	-	\$1,500,000	\$50,000	\$1,550,000
Site Development⁽¹⁾	-	-	\$60,000	\$60,000
A/E Fees⁽²⁾	\$18,600,000	\$6,150,000	\$250,000	\$25,000,000
Campus Administration	\$3,000,000	-	-	\$3,000,000
Surveys, Test, Plans, Specs⁽³⁾	\$900,000	\$100,000	\$50,000	\$1,050,000
Special Items⁽⁴⁾	\$6,900,000	\$1,350,000	\$230,000	\$8,480,000
Contingency	-	\$4,000,000	\$1,870,000	\$5,870,000
Total Uses	\$30,000,000	\$25,130,000	\$9,150,000	\$64,280,000

Notes:

- (1) Site Development includes direct costs associated with hardscape/landscape and associated with relocating a mature tree.
- (2) Fees include executive architect basic services and special services.
- (3) Materials testing and inspection during construction, geotechnical engineering.
- (4) Special Items include: arborist, permitting, soil testing, fire marshal reviews, commissioning, and special consultants.

UC CARBON ESTIMATION TOOL REPORT

Gateway New Academic Building

UC OCEAN Report

Report prepared on January 31, 2022

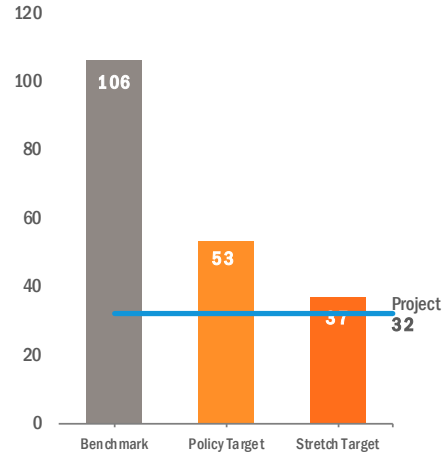
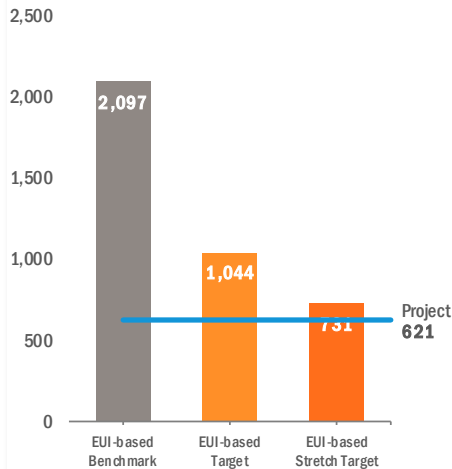
PROJECT RESULTS

50-Year NPV Utility Costs **\$18,195,600**
 Cumulative GHG Emissions **31,060 MTCO₂e/yr**

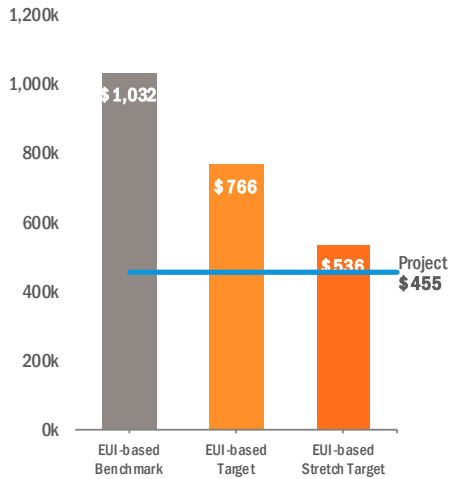
PROJECT INPUTS

Campus *UCB*
 Project Size *374,614 sq ft*
 Funding Stage *P-Funding*
 Design Phase *Schematic Design*
 Fuel Source *All-electric*
 Electricity Provider *Campus Utility*
 Cooling System *Stand-alone*
 Heating System *Stand-alone*

SITE ENERGY USE INTENSITY (kBtu/sq ft)

ANNUAL GHG EMISSIONS (MTCO₂e/yr)

ANNUAL UTILITY COSTS (\$k/yr)



DEFINITIONS

Benchmark: UC Sustainable Practices Policy whole building energy use baseline benchmark based on building type and campus location.

Policy Target and Stretch Target: The UC Sustainable Practices Policy includes bi-annually updated minimum and stretch targets based on percent reduction in energy use from the Benchmark. See Table 1 of Section V.A.3 in the Policy for more information (https://policy.ucop.edu/doc/3100155/SustainablePractices_).

Project: Results are estimated based on currently available project details and campus-specific energy assumptions.

EUI-based Benchmark, Target and Stretch Target: GHG emission estimates, and utility cost estimates associated with the project Benchmark EUI, Policy Target EUI, and Stretch Target EUI.