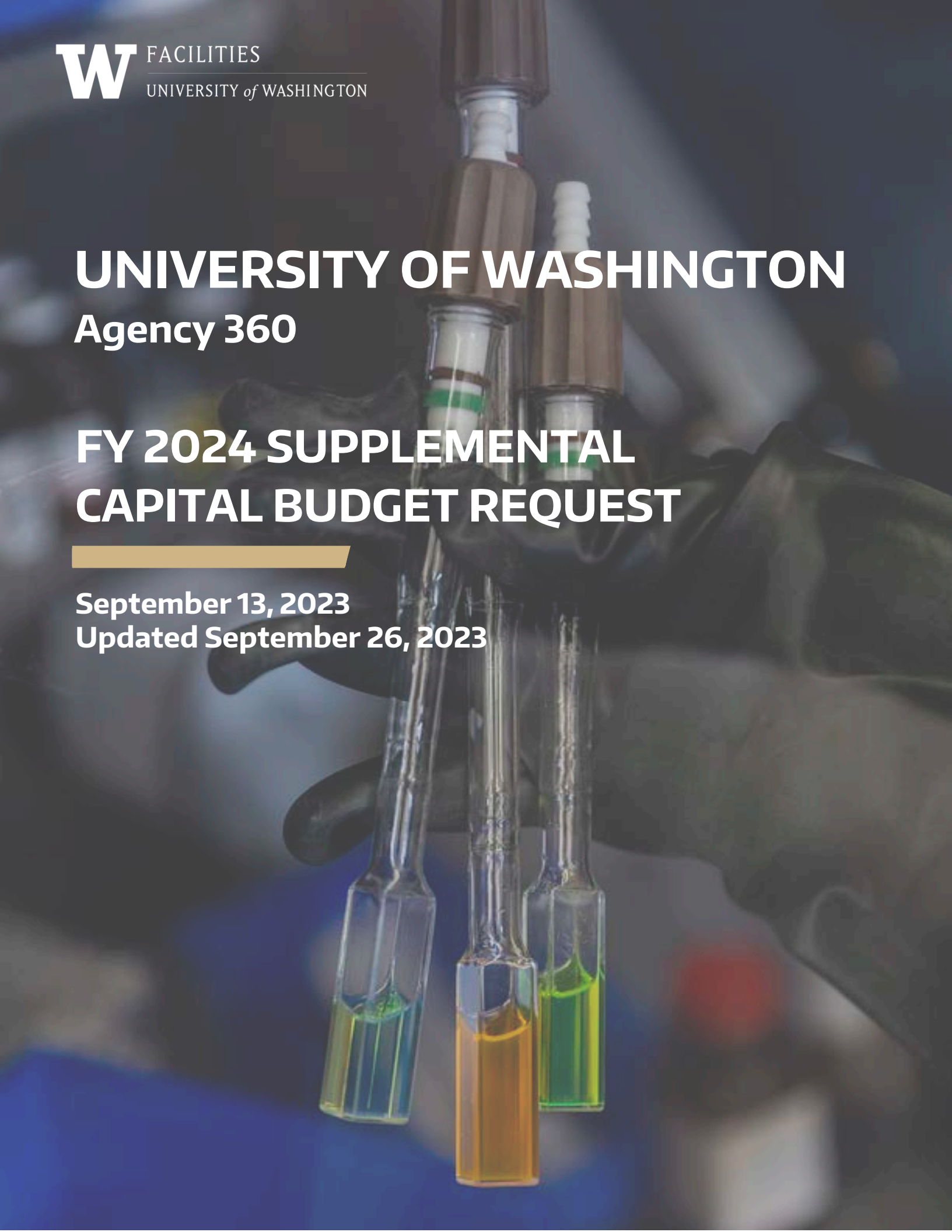
FACILITIES
UNIVERSITY of WASHINGTON

UNIVERSITY OF WASHINGTON

Agency 360

FY 2024 SUPPLEMENTAL CAPITAL BUDGET REQUEST

September 13, 2023
Updated September 26, 2023



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FY24 Supplemental Capital Budget Request
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TAB A
INTRODUCTION

Introduction

UW FY24 Supplemental Budget Request - Introduction Letter

Ten-Year Capital Plan by Project Class – Report (CBS001)

Department of Archaeology and Historic Preservation Review Correspondence

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September 13, 2023 Updated and resent on September 26, 2023 due to a glitch in CBS numbering

Kelsey Rote, Capital Budget Advisor
Office of Financial Management
300 Insurance Building
P.O. Box 43133
Olympia, WA 98504-3113

Sent via e-mail (Kelsey.Rote@ofm.wa.gov)

SUBJECT: FY24 Supplemental Capital Budget Request

Attached please find the University of Washington's – FY24 Supplemental Capital Budget Request.

We are formally requesting $5 million from the State 057 Building Construction Account for initial design work associated with the Chemical Sciences & Bagley Hall project.

Chemistry is a core component of the undergraduate and graduate educational experience at the UW. A new Chemical Sciences Building (CSB) will enable the UW to attract and retain world-class faculty and graduate students and to develop new interdisciplinary hands-on educational opportunities to train the next generation of chemical scientists in the state. In addition to the new building, the University will address significant deferred maintenance and increase undergraduate capacity through the demolition of the Chemistry Library and renovations of existing Chemistry spaces in Bagley Hall, which is ranked #2 on the list of facilities with deferred renewal and life safety needs. Total project cost is estimated at $290 million with $160 million coming from local sources.

Compared to our previous submission to the state, the CSB project has been reduced in scope to a total project cost of $190 million (vs. $240 million) and the state funding request has been reduced from $200 million to $130 million ($5 million in FY24 for design and $125 million in the 25-27 biennium for construction).

In addition to our request for the Chemical Sciences & Bagley Hall project, we are requesting $48.9 million in funding from the Climate Commitment Account 26-C to support our ongoing decarbonization efforts via our FY24 Energy Renewal Program.

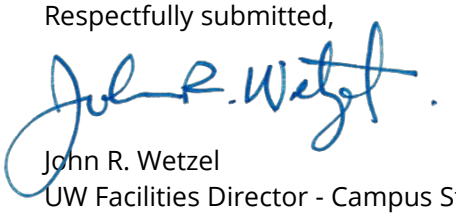
The projects identified for this fund source touch all three campuses and several UW Medical Center facilities. Five of these projects include initial, foundational pieces of the University's Clean Energy Strategy to fully decarbonize the energy system of the Seattle campus and address energy consumption across our entire facility portfolio. These projects will help modernize UW's energy infrastructure and better align the University's sustainability values with daily campus operations. Please feel free to visit this website to learn more about our plans: Energy transformation | UW Sustainability.

The sixth project is related to our highly successful Clean Energy Institute Clean Energy Institute (washington.edu) that continues to grow and needs funding to support additional tenant improvements and research related furnishings, fixtures, and equipment purchases in the new CAMCET facility currently under development.

Besides this specific request for the FY24 Energy Renewal Program outlined above, we have an additional list of first phase “clean energy” projects that total approximately $34 million that are poised for execution if additional funding is available for appropriation.

Thank you for your consideration and please let us know if you have any questions about the request.

Respectfully submitted,



John R. Wetzel
UW Facilities Director - Campus Stewardship and Capital Budget

Cc (via e-mail):
Randy Hodgins, UW External Relations
Joe Dacca, UW State Relations
Jed Bradley, UW Office of Planning & Budgeting
Charlotte Shannon, UW Office of Planning & Budgeting
Lou Cariello, UW VP of Facilities
Barbara Wingerson, UW AVP Facilities Finance
Rod Worden, UW AVP Facilities Operations
Steve Tatge, UW AVP Facilities Asset Management

OFM

360 - University of Washington
Ten Year Capital Plan by Project Class
2023-25 Biennium
*

Version: 11 FY24 Supplemental Budget FINAL

Report Number: CBS001
Date Run: 9/26/2023 2:21PM

Project Class: Preservation

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2023-25	New Approp 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31	Estimated 2031-33
2	**40000147 FY24 Energy Renewal Program**									
	26C-1 Climate Commit Accou-State	48,900,000				48,900,000				

Project Class: Program

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2023-25	New Approp 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31	Estimated 2031-33
1	**40000146 Chemical Sciences & Bagley Hall**									
	057-1 State Bldg Constr-State	130,000,000				5,000,000	125,000,000			
	148-6 HE - Dedicated Locl-Non-Appropriated	160,000,000				785,000	59,215,000	100,000,000		
	Project Total:	**290,000,000**				**5,785,000**	**184,215,000**	**100,000,000**		

Total Account Summary

Account-Expenditure Authority Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2023-25	New Approp 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31	Estimated 2031-33
057-1 State Bldg Constr-State	130,000,000				5,000,000	125,000,000			
148-6 HE - Dedicated Locl-Non-Appropriated	160,000,000				785,000	59,215,000	100,000,000		
26C-1 Climate Commit Accou-State	48,900,000				48,900,000				
Total	**338,900,000**				**54,685,000**	**184,215,000**	**100,000,000**		

OFM

Ten Year Capital Plan by Project Class

*

Report Number: CBS001
Date Run: 9/26/2023 2:21PM

Parameter	Entered As	Interpreted As
Biennium	2023-25	2023-25
Functional Area	*	All Functional Areas
Agency	360	360
Version	11-A	11-A
Project Classification	*	All Project Classifications
Include Enacted	Yes	Yes
Sort Order	Project Class	Project Class
Include Page Numbers	N	No
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION REVIEW

Correspondence	
8-23-2022	UW Request Letter to DAHP
9-7-2022	DAHP Compliance Letter to UW

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FACILITIES
UNIVERSITY of WASHINGTON
Campus Architecture & Planning

Transmittal

Date: August 23, 2022

To: Holly Borth
Preservation Design Reviewer
Department of Archaeology & Historic Preservation
PO Box 48343
Olympia, WA 98504-8348

From: Julie Blakeslee
University Environmental & Land Use Planner

Subject: Executive Order 21-02 Review in Support of State Budget Request

In accordance with Executive Order 21-02 directing agencies to consult with the Department of Archaeology and Historic Preservation (DAHP) on all capital construction projects to be considered for state funding or for pre-design reports, the University of Washington is hereby seeking exemptions for and providing information on proposed projects described below.

We would appreciate a letter from you confirming receipt of this information for OFM purposes. The projects include:

UWMC NORTHWEST CAMPUS - BEHAVIORAL HEALTH RENOVATION – The UW is seeking construction funding for E-Wing interior building renovation at the UWMC Northwest Campus for behavioral health improvements. The Washington State legislature appropriated funding (House Bill 1593) for the these services and the Behavioral Health Teaching Facility.

wəɬəbʔaltxʷ (INTELLECTUAL HOUSE) - Phase 2 – The UW is seeking design and construction funding for the second phase of wəɬəbʔaltxʷ / Intellectual House. The proposed location is adjacent to the existing, Phase 1, structure in the northeast Seattle campus area. The site is identified as C4 in the 2019 Seattle Campus Master Plan. No existing structures would be removed or modified.

CHEMICAL SCIENCES – The UW is seeking design funding for Chemical Sciences. This is anticipated to be a multi-phased interdisciplinary project, co-locating research faculty members from Chemistry, Materials Science and Chemical Engineering departments. The site is identified as C17 in the 2019 Seattle Campus Mater Plan. This is the site of the existing Chemistry Library Building.

UW TACOMA - LAND ACQUISITION – The UW is seeking funding to acquire strategic real estate parcels within the 46-acre campus footprint as they become available for purchase.

INFRASTRUCTURE RENEWAL – The UW, through our Building Account, is seeking funding to design and construct various projects for campus infrastructure renewal. The components include:

- Energy modernization – infrastructure to help utility metering, HVAC control systems, advanced monitoring technologies to reduce energy consumption, and a new power plant chiller to comply with the 2019 State Buildings Performance Standard.

- Equity/Inclusion Accessibility improvements – remove barriers to program access by remediating pathways to/from dial-a-ride stops, transit stops, and accessible parking; classroom access updates; and add or renovate building elevators.
- Fire/Life Safety – improvements to building fire/life safety systems
- Building envelope – improvements to building envelopes to protect the structure and extend facility life (e.g. foundation, roof, drainage)
- Classroom infrastructure – architectural, mechanical, electrical, and audiovisual systems updates

The University of Washington 2023-2025 State Capital Budget Request includes construction funding for the following projects that have already received DAHP review at the pre-design and/or design phase:

MAGNUSON HEALTH SCIENCES BUILDING - Phase 2 – The UW is seeking construction funding for the T-Wing Renovation Phase 2 at the Magnuson Health Sciences Center. The pre-design and design for Phase 2 has been completed. (DAHP project codes 2020-09-05684 and 2018-09-07191)

ANDERSON HALL RENOVATION – The UW is seeking construction funding for Anderson Hall, a part of the UW's original Restore the Core program to restore some of our oldest buildings on campus. Anticipated work includes exterior cleaning and unreinforced masonry improvements; interior system upgrades such as lighting, IT, and mechanical; fire, life, safety upgrades; removal of some past renovation elements; and improved accessibility per the ADA including elevator. (DAHP project code 2020-05-0362)

SEISMIC IMPROVEMENTS – The UW requests funds for phase 4 construction of seismic improvements to upgrade unreinforced masonry (URM) buildings on the Seattle campus. Sixteen buildings are identified that require URM/façade upgrades. The UW has a number of buildings constructed with URM from the late 19th century to the mid-20th century. Twenty-five buildings are identified that require parapet bracing. UW has identified the work needed to: improve life safety; minimize structural failure; preserve historic structures; and reduce adverse effects on UW operations in the event of an earthquake. The work of this capital program plans for five to six phases, depending on funding. Significant coordination with the Seattle Department of Construction & Inspections structural engineering group and Seattle Department of Neighborhoods Landmarks group has occurred during the planning of this work, including design review. (DAHP project codes 2020-09-05864 and 2018-09-07191; also called URM Improvements and UW Major Infrastructure in the past).

Attachments:

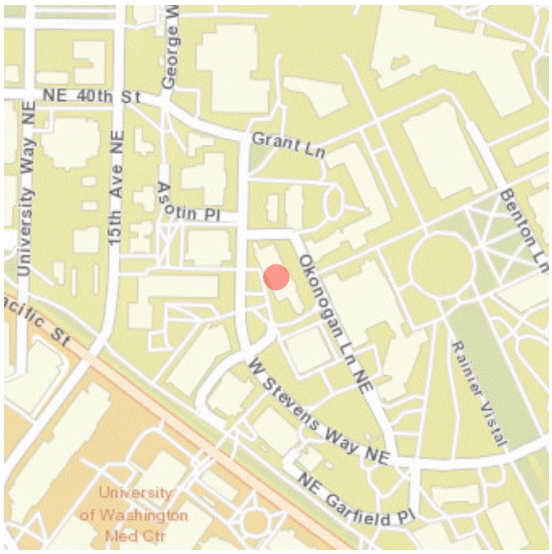
1. UWMC Northwest Campus - Behavioral Health Renovation – map of site (p. 3)
2. wəɬəbʔaltxʷ (Intellectual House) - Phase 2 – map of site and 2019 Seattle Campus Master Plan development site. (pp. 4 and 5)
3. Chemical Sciences – map of site and 2019 Seattle Campus Master Plan development site. (pp. 4 and 5). Chemistry Library Building historic asset survey (pp. 9-16)
4. UW Tacoma – map of campus (p. 6)
5. Anderson Hall – map of site (p. 7)
6. Seismic Improvements – list of potential seismic/URM building work (p. 8)

Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Location



Address: W Stevens Way NE, Seattle, Washington, USA

Geographic Areas: King Certified Local Government, Seattle Certified Local Government, King County, T25R04E16, SEATTLE NORTH Quadrangle

Information

Number of stories: N/A

Construction Dates:

Construction Type	Year	Circa
Built Date	1955	☐
Remodel	1987	☐

Historic Use:

Category	Subcategory
Education	Education - College

Historic Context:

Category
Education
Communications

Architect/Engineer:

Category	Name or Company
Architect	Thomas,Grainger & Baar

Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Thematics:

Local Registers and Districts

Name	Date Listed	Notes

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
041212-22-NPS, NPS, SR 520 Bridge Replacement and MOA for Bryant Site 6(f)	5/7/2017		

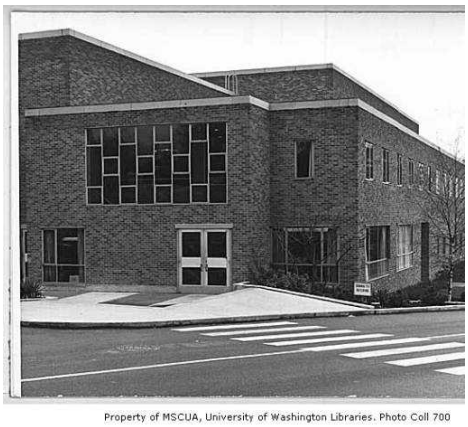
Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Photos

Chemistry_Library_1279_2016_5.JPG



Chemistry_Library_1279_UW20997z_7.png

Chemistry_Library_1279_2016_6.JPG

Chemistry_Library_1279_2016_4.JPG

Chemistry_Library_1279_2016_3.JPG

Chemistry_Library_1279_2016_2.JPG

Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Chemistry_Library_1279_2016_1.JPG

Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Inventory Details - 5/7/2017

Common name: Chemistry Library, UW facility number 1279

Date recorded: 5/7/2017

Field Recorder: Mimi Sheridan

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Plan	Irregular
Structural System	Masonry - Poured Concrete
Cladding	Brick
Cladding	Concrete - Poured
Cladding	Glass
Roof Material	Asphalt/Composition - Built Up
Roof Type	Flat with Parapet

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): Yes

Property potentially contributes to a historic district (National and/or local): No

Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Significance narrative:

NRHP ELIGIBLITY RECOMMENDATION
The Chemistry Library is recommended not eligible for listing in the NRHP because it has been so altered that it lacks sufficient integrity to convey historic significance. Although it is located within the boundaries of the recommended UW Central Campus Historic District, the degree of alteration makes it an historic non-contributing resource.

Built in 1955, the TV/Drama Building housed classrooms, storage, and workshops for the School of Drama as well as broadcasting facilities for the university's public television station, KCTS 9. The station had begun broadcasting in 1954 using equipment donated by KING-TV owner Dorothy S. Bullitt. During the 1950s and 1960s, the station primarily supplied classroom instructional programs for Washington State's K–12 schools, plus National Educational Television (NET) programs. NET was composed of non-profit organizations, many of which were based on college campuses. The station's audience outside of schoolrooms was limited until the 1970s, when NET was absorbed into the newly created Public Broadcasting Service. Under PBS affiliation, KCTS 9 began offering a vastly enhanced scope of programming for the general public. The station moved to larger quarters on the Seattle Center campus in 1986. KCTS 9 became independent of the University of Washington in 1987.
In 1987, after KCTS left, the building underwent significant alterations, designed by architect Gerald Kumata. These alterations included the addition of the building's most notable feature, a glass-enclosed stairway on the building's northwest corner. Further renovations took place in 2011-2016. The building currently houses the chemistry library, faculty offices, classrooms and laboratories.

Seattle's Thomas, Grainger & Baar was the designing firm with Clyde Grainger as the lead architect. Grainger (1887-1958) received his Bachelor of Architecture degree from the University of Washington in 1910. He initially worked with the Seattle firm Thomas, Russel, & Rice and, in 1925, formed a partnership with Harlan Thomas. Notable buildings designed by Grainger during this period include Bagley Hall (1937) with Floyd Naramore and Carl Gould and St. Stephen's Episcopal Church (1940). Upon Thomas' retirement in 1949, Edward Joseph Baar joined the firm.

Physical description:

The Chemistry Library Building sits at an angle on the east side of W. Stevens Way NE, northwest of Bagley Hall and across from Guthrie Hall and the Physics/Astronomy Building. Its north-south alignment matches that of Rainier Vista instead of the other buildings along Stevens Way.

The three-story building is constructed of poured-in-place concrete and clad in tan, ochre, and red brick. It is generally rectangular in plan with projections on both the northwest and southeast corners. The main façade, facing northeast, is largely obscured by trees, shrubs and a large construction trailer. The main entry has aluminum-framed double doors sitting at the top of a short flight of four stairs flanked by planting beds. The west façade is a field of masonry punctuated by pairs of aluminum casement windows. The most striking feature is the rounded, glass-enclosed stairwell at the northwest corner of the building. The stairwell is composed of channel-set glass that arcs between four concrete pillars. Another stairwell is recessed at the southeast corner, with a radial curve and a single large round column.

INTEGRITY
This building has a low level of integrity as it was extensively altered in 1987 when it became the Chemistry Library. Alterations include the addition of a prominent glass-enclosed staircase at the north end as well as replacement windows.

Historic Property Report

Resource Name: TV/Drama Building - University of Washington

Property ID: 709988

Bibliography:

Johnston, Norman J. University of Washington: An Architectural Tour. New York: Princeton Architectural Press, 2001.

Johnston, Norman J. The Fountain to the Mountain - The University of Washington Campus,
1895 – 1995. Seattle: University of Washington Press, 1995.

http://kcts9.org/about

https://apps.admin.washington.edu/content/sso/v3/file/3056703?rendition=Web&forcePDF=true

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Allyson Brooks Ph.D., Director
State Historic Preservation Officer

September 7, 2022

Julie Blakeslee
University Environmental and Land Use Planner
Campus Architecture & Planning
UW Facilities, Asset Management

In future correspondence please refer to:
Project Tracking Code: 2022-09-05906
Re: UW Executive Order 21-02 Review in Support of State Budget Request

Dear Julie Blakeslee:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP). The above referenced project has been reviewed on behalf of the State Historic Preservation Officer (SHPO) under provisions of Governor's Executive Order 21-02 (21-02).

Should projects become obligated with Washington State Capital Funding and include ground disturbing activities, and/or alterations to the interior or exterior of buildings or structures 45 years in age or older, we will request a related project review form to initiate consultation with DAHP under GEO 05-05. If the project involves a building or structure 45 years in age or older, we will also require an EZ2 form.

If neither ground disturbing activities nor alterations to a building or structure over 45 years old are related to a project, consultation with DAHP is not required.

These comments are based on the information available at the time of this review and on behalf of the SHPO in conformance with 21-02. Also, we appreciate receiving copies of any correspondence or comments from concerned tribes and other parties that you receive as you consult under the requirements of 21-02. Should additional information become available, our assessment may be revised.

Thank you for the opportunity to review and comment. Please ensure that the DAHP Project Number (a.k.a. Project Tracking Code) is shared with any hired cultural resource consultants and is attached to any communications or submitted reports. If you have any questions, please feel free to contact me.

Sincerely,

Holly Borth
Preservation Design Reviewer
(360) 890-0174
Holly.Borth@dahp.wa.gov

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TAB B
PRESERVATION PROJECTS

New Requests	
40000147	**FY24 Energy Renewal Program (Parent Project)**
40000140	UW Seattle - Centralized Chilled Water Capacity Improvements
40000141	Clean Energy Institute (Located in CAMCET)
40000142	UW Bothell - Central Plant Optimization & Gas Boiler Replacements
40000143	UW Tacoma - Gas Boiler Replacements
40000144	UWMC - NW Campus Central Utility Plant Planning
40000145	UWMC - Montlake Campus HVAC Systems Renewal

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PRESERVATION PROJECTS

REQUEST SUMMARIES

ENERGY RENEWAL PROGRAM FY24 - $48.9M Total

UW Seattle – Centralized Chilled Water Capacity Improvements - $14M

The University of Washington requests $14 million of funding from the Climate Commitment Account 26-C to support one of our foundational Clean Energy Strategy enabling projects that will install approximately 1,400 LF of new 18" - 22" diameter central cooling water (CCW) distribution utility piping to help move decentralized cooling loads in the William H. Foege Building (Bioengineering & Genome Sciences), Ocean Sciences and the I, J, & K wings of the Magnuson Health Sciences Center to the central cooling water system.

Clean Energy Institute (Located in CAMCET) - $10M

The University of Washington requests $10 million of funding from the Climate Commitment Account 26-C to help support additional tenant improvements and research related furnishings, fixtures, and equipment purchases for the Clean Energy Institute (CEI). This funding will build upon the previous $29 million of capital provided by the State in past biennia. The CEI will be located in the new CAMCET (Center for Advanced Materials and Clean Energy Technology) facility to be built in Portage Bay Crossing (West Campus). Portage Bay Crossing merges education and student life with cutting-edge research, pioneering public/nonprofit institutions, and private companies

UW Bothell – Central Plant Improvements & Gas Boiler Replacements - $6.5M

The University of Washington requests $6.5 million of funding from the Climate Commitment Account 26-C to support energy renewal upgrades at our Bothell Campus. This project will upgrade one (1) 1,000-ton chiller at the Central Plant and replace twenty-one (21) domestic gas heaters with electric gas heaters. These projects will help reduce our greenhouse gas emissions by installing more efficient equipment to bring the campus further into compliance with the Washington State Clean Buildings Standard.

UW Tacoma – Gas Boilers Replacements - $8.4M

The University of Washington requests $8.4 million of funding from the Climate Commitment Account 26-C to support energy renewal upgrades at our Tacoma Campus. The project would replace gas-fired boilers and associated infrastructure components with electric condenser boilers or heat pumps in compliance with the Washington State Clean Buildings Performance Standard. Both options are energy efficient and meet the Department of Energy's and ASHRAE's recommendation of replacing gas-fired equipment.

UWMC – NW Campus Central Utility Plant Planning - $2M

The University of Washington requests $2 million of funding from the Climate Commitment Account 26-C to support the preparation of a predesign/feasibility study for a Central Utility Plant at the 44-acre UW Medical Center - Northwest Campus in North Seattle. This project would take the initial steps in creating an implementation plan to develop a Central Utility Plant which will address the decentralized utility infrastructure (meaning individual utility systems provided at each facility) which

creates problems in terms of maintenance, reliability, and excess energy consumption working towards the ultimate goal of campus decarbonization.

UWMC – Montlake Campus HVAC Systems Renewal - $8M

The University of Washington requests $8 million of funding from the Climate Commitment Account 26-C to fund HVAC Systems Renewal projects for our UW Medical Center Montlake Campus. A recent UWMC facility condition assessment identified numerous critical assets related to HVAC systems that are long past their expected service life and prone to failure.

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360 - University of Washington
Capital Project Request

2023-25 Biennium

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Version: 11 FY24 Supplemental Budget FINAL

Report Number: CBS002
Date Run: 9/26/2023 3:07PM

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

Description

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests a total of $48.9 million dollars of funding from the Climate Commitment Account 26-C for six specific projects that support ongoing energy renewal and decarbonization efforts across all three campuses and UW Medical Center facilities. Please refer to the detailed Agency Summaries provided for each subproject.

Project Description

Detailed responses to each CBS question are captured in the individual sub-project descriptions.

Location

City: Seattle **County:** King **Legislative District:** 043

Project Type

Infrastructure (Major Projects)

Growth Management impacts

Not applicable.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2023-25 Fiscal Period Reapprops	New Approps
26C-1	Climate Commit Accou-State	48,900,000				48,900,000
	Total	**48,900,000**	**0**	**0**	**0**	**48,900,000**

		Future Fiscal Periods			
		2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProjects

SubProject Number: 40000140
SubProject Title: UW Seattle - Centralized Chilled Water Capacity Improvements
SubProject Class Preservation

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000140
SubProject Title: UW Seattle - Centralized Chilled Water Capacity Improvements
SubProject Class Preservation

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests $14 million of funding from the Climate Commitment Account 26-C to support one of our foundational Clean Energy Strategy enabling projects that will install approximately 1,400 LF of new 18” - 22” diameter central cooling water (CCW) distribution utility piping to help move decentralized cooling loads in the William H. Foege Building (Bioengineering & Genome Sciences), Ocean Sciences and the I, J, & K wings of the Magnuson Health Sciences Center to the central cooling water system.

Project Description

1. What is the problem/opportunity? Identify: priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

The climate is changing resulting in hotter, prolonged weather patterns and an increased need for cooling. Many campus spaces and buildings rely on natural ventilation for cooling, with mechanical cooling (using electricity to create cool air) traditionally prioritized for data centers, large lecture halls, libraries, research spaces and other areas where cooling is essential to program needs. As a result, many campus buildings do not have any cooling, do not have enough cooling, and/or have inefficient cooling. All these new cooling requirements place a significant burden on our electrical system. This is in addition to the additional electrical demand needed to decarbonize our campus. In order for UW to be successful in its decarbonization efforts it needs to maximize its efficiency with the electricity it receives, and enabling more efficient cooling is a critical step in this process. This can be summarized as “resource efficient decarbonization.”

Some of the first projects that UW can implement to achieve resource efficient decarbonization is to increase the supply of chilled water from its central system, improve the distribution of that chilled water out to campus buildings, and either supplement or replace cooling loads in critical research areas.

The existing campus district energy system is the most efficient means of providing chilled water /cooling to campus buildings. The Centralized Chiller Water Capacity Improvements include an extension of the current chilled water piping system and connecting cooling equipment for five existing buildings to the central cooling system. Presently these buildings rely on a combination of stand-alone chilled water equipment and connections from the Central Plant. This project enables the elimination of the less efficient building-scale systems, as well as increasing flow capacity which will significantly improve the present condition where existing spaces become starved for cooling on warm weather days.

The buildings impacted by this project are the William H. Foege Building (Bioengineering & Genome Sciences), Ocean Sciences Building and portions of the Magnuson Health Sciences buildings occupied by six Health Science schools. Cooling in these buildings is required to support the vivaria, laboratory, and teaching spaces and to mitigate the heat from scientific equipment such as low temperature freezers and incubators. Cooling is currently being provided by less reliable and less efficient decentralized cooling units.

The current district cooling piping in the utility tunnels under Magnuson Health Sciences buildings is connected to multiple buildings. While these connections serve some of the process loads in the buildings, there is decentralized cooling equipment that cannot be connected due to lack of capacity in the current system. The existing decentralized cooling

SubProjects

SubProject Number: 40000140
SubProject Title: UW Seattle - Centralized Chilled Water Capacity Improvements
SubProject Class Preservation

equipment is inefficient, increases the electrical demand, and has high deferred maintenance costs. Due to the lack of capacity in the existing piping, UW Facilities are unable to implement a key pillar of UW's Clean Energy Strategy without addressing the distribution capacity in this section of the system. This area of the campus represents a significant amount of decentralized, inefficient chilling that is stranded unless this utility work and equipment connections are completed. Further, by consolidating cooling capacity within the central system, all the low-grade waste heat generated from cooling the buildings is now consolidated and available to be used as part of an initial hot water loop in and around the West Campus Utility Plant.

2. What will the request produce or construct (predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased, and if so, which phase is included in the request. Provide detailed cost backup.

This project will produce a design and complete installation of approximately 1,400 LF of new 18" – 22" diameter central cooling water (CCW) distribution utility piping through an existing utility tunnel space and associated pipe support racks and other services to improve the distribution utility system in this portion of campus. Project will begin in July 2024 and be completed by June 2025. No phasing is anticipated at this time. There will be critical shut down/cut over work that will impact critical customers that will have to be scheduled well in advance and done off-season(winter). It will be key to ensure these constraints are integrated into the project schedule from the beginning and prioritized so that all schedule objectives of the project are met. Once the piping extension is installed, cooling loads in the Foege Building (Bioengineering & Genome Sciences), Ocean Sciences and the I, J, & K wings of Magnuson Health Sciences Center will be connected to the central system. Equipment improvements at individual buildings may include the removal of existing building chillers & cooling towers (at end-of-lifecycle) and connections to the central district cooling system which may include additional heat exchangers and pumps.

A detailed C-100 Cost Template is included in the decision package.

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?

This request would provide the additional capacity necessary to address the current limits of the system in this portion of campus to enable one component of the UW Energy Transformation strategy of re-centralizing inefficient distributed chilling.

This is essential utilities/infrastructure work. Without this infrastructure, we are unable to connect inefficient decentralized cooling loads and implement one of the pillars of the UW's Energy Transformation Strategy.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

There are no alternatives that accomplish the necessary results of increasing the capacity of our distribution system without providing the scope outlined above.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000140
SubProject Title: UW Seattle - Centralized Chilled Water Capacity Improvements
SubProject Class Preservation

UW Campus Energy, Utilities & Operations is the primary client for this project and UW's six Health Science schools, including the School of Medicine, are the primary occupants of the buildings served by this utility improvement.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share OF project cost allowable and the supporting citation or documentation.

No, this project will not leverage funding sources other than Climate Commitment Account funds.

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

This project is key to the UW's Energy Transformation Strategy of re-centralizing inefficient distributed chilling to enable resource-efficient decarbonization. This scope was also recommended in the UW Facilities 2006 Utilities Master Plan and a design was completed in 2011. Since 2011, construction of the West Campus Utility Plant (WCUP) and other major improvements have been completed that make the 2011 design obsolete. This project would update the piping & equipment design and complete the installation of piping, equipment, and equipment load connections.

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.

No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.

No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, Clean Buildings performance standards in RCW19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?

The Centralized Chiller Water Capacity Improvements are a resource efficient decarbonization project. It enables UW to be more efficient with its electricity, reducing electrical demand, which will enable future electrically based decarbonization projects to proceed. UW presently has electrical capacity constraints with its electrical utility, Seattle City Light, and that limits decarbonization efforts. This is an enabling project that helps 'make-ready' the campus for direct decarbonization projects.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

The University believes that both new and renovated facilities do a much better job of taking historically marginalized communities into account, as they are able to be more accessible and inclusive, take a wider array of learning styles and methods into account, and generally utilize new information, processes, and technology in a way that older facilities cannot

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000140
SubProject Title: UW Seattle - Centralized Chilled Water Capacity Improvements
SubProject Class Preservation

adequately support. In this case, the ability to provide adequate cooling to support spaces in a sizable portion of South Campus will benefit all.

12. Is there additional information you would like decision makers to know when evaluating this request?

Central cooling is one piece of the five-part strategy to transition the Seattle campus utility system to 100% clean energy and decarbonize the heating and cooling system. Expanding the central cooling system frees up electrical capacity and replaces inefficient, aging building chillers. Increasing the cooling capacity of the existing system and connecting additional existing loads is essential utility work that enables a significant piece of the UW Energy Transformation strategy. Not funding this request will directly impact UW's ability to implement that strategy and delay the re-centralization of distributed cooling, to enable resource-efficient decarbonization.

Location
City: Seattle **County:** King **Legislative District:** 043

Project Type
Infrastructure (Major Projects)

Growth Management impacts
Not applicable.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2023-25 Fiscal Period Reapprops	New Approps
26C-1	Climate Commit Accou-State	14,000,000				14,000,000
	Total	**14,000,000**	**0**	**0**	**0**	**14,000,000**

Acct Code	Account Title	Future Fiscal Periods 2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000141
SubProject Title: Clean Energy Institute (Located in CAMCET)
SubProject Class Preservation

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000141
SubProject Title: Clean Energy Institute (Located in CAMCET)
SubProject Class Preservation

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests $10 million of funding from the Climate Commitment Account 26-C to help support additional tenant improvements and research related furnishings, fixtures, and equipment purchases for the Clean Energy Institute (CEI). This funding will build upon the previous $29 million of capital provided by the State in past biennia. The CEI will be located in the new CAMCET (Center for Advanced Materials and Clean Energy Technology) facility to be built in Portage Bay Crossing (West Campus). Portage Bay Crossing merges education and student life with cutting-edge research, pioneering public/nonprofit institutions, and private companies.

Project Description

1. What is the problem/opportunity? Identify: priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

The Clean Energy Institute (CEI) at the University of Washington was founded in 2013 to accelerate the adoption of a scalable and equitable clean energy future. CEI people, facilities, and ideas support WA industry and communities primarily through the Washington Clean Energy Testbeds. Our industry-focused Scale-up, Characterization, and System Integration Testbeds have served about 120 companies and over 700 individuals as users (about half of whom are from industry). External users include Fortune 10 Tech companies to 3-person clean energy start-ups. CEI's Community Engagement Testbed connects UW students, staff and faculty with K-12 schools, community colleges, and projects driven by community goals for clean energy adoption. Our work reaches Title 1 schools, where thousands of students (and teachers) apply next generation science standards to the clean energy revolution happening in their communities. The Community-Engagement Testbed impacts rural, underserved, and tribal communities in Washington through our community engineering program. The Testbeds are poised to move into 46,000 square feet of new space in March 2025, nearly triple the current footprint, and the additional funding is necessary to fully build out the program space and provide the furnishings, fixtures, and equipment to grow the highly successful Clean Energy Testbeds program.

2. What will the request produce or construct (predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased, and if so, which phase is included in the request. Provide detailed cost backup.

This request would provide additional funding to help support a full buildout of the CEI space in CAMCET and will be used for both tenant improvements (construction) and the furniture, fixtures, and equipment (FFE) needed to make the finished research spaces functional.

Current Project Schedule for CAMCET:
Planning: February 2016 - March 2022
Design: April 2022 - August 2023
Construction: January 2024 - July 2026
Completion: July 2026

A detailed C-100 Cost Estimate is included in the decision package.

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000141
SubProject Title: Clean Energy Institute (Located in CAMCET)
SubProject Class Preservation

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?

The State of Washington has seen dramatic growth in its clean energy innovation ecosystem (especially batteries) and demand for equity-driven clean energy deployment and job growth, thanks to recent passage of the federal Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL), combined with State passage of the Clean Energy Transformation Act and Climate Commitment Act. The additional CAMCET funding requested here directly addresses the need to accelerate technology transformation by industry and the equitable distribution of clean energy benefits to Washington communities. New funding will expand and unify Testbed spaces that are used by industry, K-14 teaching and project-based learning, as well as convening spaces for other community–engagement activities. For example, the requested funds will partially support UW's first K-12 teacher and student clean energy laboratory science training facilities that can advance next-gen science standards in chemistry, physics, and engineering while being safe for use by minors. Requested funds will also allow tenant improvements and FFE acquisitions that expand our industry-driven Testbed facilities to accommodate the substantial growth we have seen in advanced clean energy manufacturing and, especially, battery manufacturing and testing.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

CEI programs are growing rapidly to support expanding federal and state opportunities regional industry and underserved communities have experienced in recent years; this has driven program needs for facility space to grow from 25,000 SF originally envisioned to over 46,000 SF. Numerous alternatives (in the form of various "test fits") have been explored to determine the most economical way to deliver the project. The recommended alternative was chosen for striking the best balance between capital investment and maximum footprint.

There is no predesign associated with this request.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The Clean Energy Institute's CAMCET program provides facilities and programs that support education, research, technology development, and community engagement in clean energy.

Users of the existing 14,500 square foot Scale-up, Characterization, and System Integration Testbeds located in the Bowman Building billed a total of 50,000 hours of instrument use over the past year, with 55% of the users coming from outside UW (mostly regional industry) and 45% from UW students, staff, and faculty. Battery testing resources are nearly 100% utilized 24/7/365 today.

The requested funds will permit significant expansion of our industry and academic R&D focused advanced manufacturing and battery-related activities, as well as grow the number of controlled-access user spaces that allow proprietary R&D campaigns within the Testbeds. Overall, the additional funding will support a near doubling of finished and operational scale-up, characterization, and system integration Testbed space. Given the proximity to market rate-space in W27, the

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

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SubProject Class Preservation

expanded capabilities should enable more than doubling of our billed user hours by industry within three years of full operation of the 46,000 SF CAMCET program space in W27.

The requested funds will also partially complete our first Community-Engagement Testbed laboratory, project, and convening space. This new set of spaces will be suitable for safe teaching and learning of clean energy lab sciences concepts in K-14 communities, including minors. Currently, the Clean Energy Institute has no dedicated community engagement teaching, project, or convening spaces, and the UW campus has no lab science spaces authorized for occupancy by minors, limiting the ways we can introduce the chemistry, physics, and engineering of clean energy to K-14 communities. Despite these limitations, CEI found ways to participate in summer camps, informal education programs, and in-classroom teaching that reached over 2,400 K-12 students, 17% of whom came from Title 1 schools over the past year. The proposed Community-Engagement Testbed facilities will dramatically grow and enrich our teacher-focused clean energy education programs. Most importantly, it will let us emphasize next-generation science standard teaching that incorporates clean energy lab science elements and projects suitable for elementary, middle, and high school teachers.

The K-12 education directors for two other institutes to be housed in the W27 building, the Institute for Protein Design (IPD), and Brotman Baty Institute (BBI) have indicated the proposed Community Engagement Testbed spaces will transform their engagement of K-12 teachers and students in next generation biological and medical STEM education. This past year, CEI community engagement programs supported clean energy STEM programming that impacted 36K-14 educators; within three years of completion of these spaces, we expect the combined educational programming from CEI, IPD, and BBI to reach at least 5times this number per year.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state(or other) share OF project cost allowable and the supporting citation or documentation.

Although this $10 million request does not directly leverage non-state funding, the CEI program is the recipient of funding from multiple non-state sources to support its mission in the CAMCET facility. These funding sources will sustain the operations, maintenance, FFE renewal, and staffing requirements needed to maintain a high performing Testbed facility.

Federally funded R&D centers and consortia already support a range of interdisciplinary activities led by CEI Faculty and Staff. These multi-institutional collaboratives typically include multiple research universities, startups, corporations, and national laboratories. Some of these research centers. Completion of CAMCET Testbed facilities will benefit existing Centers and Consortia (representing about $130 million of R&D activity), including the DOE Innovation Center for Battery500 Consortium, NSF Center for Integration of Modern Optoelectronic Materials on Demand (IMOD), NSF Molecular Engineering Materials Center (MEM-C), and DOE's U.S. Manufacturing of Advanced Perovskites Consortium (US-MAP), while helping UW and our partners establish new centers and consortia.

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

As part of the 2019 UW Campus Master Plan, the University and City of Seattle leaders approved nearly three million square feet of new development in the area to the west of the main Seattle campus, on the south end of the University District neighborhood. This new development is now known as Portage Bay Crossing.

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Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000141
SubProject Title: Clean Energy Institute (Located in CAMCET)
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In March 2022, after a pause to address urgent pandemic needs, the UW Board of Regents approved the project plan for the first major development within Portage Bay Crossing: a new, 11-story, 340,000 SF building focused on solutions for a healthy planet. This building will be located at Site W27, between NE 40th Street and the Burke-Gilman Trail, with University Way NE ("the Ave") to the east and Brooklyn Avenue NE to the west. The W27 building will include space for UW research and education, as well as market-rate leasable spaces for UW mission-aligned partners.

CAMCET, including the Washington Clean Energy Testbeds, will occupy more than 46,000 of the 130,000 SF allocated to UW within the W27 building, which is estimated to be completed in Spring 2025. This doubling of the Testbeds' footprint will expand fabrication capabilities, including advanced manufacturing of pouch cell batteries, and will create dedicated spaces for testing solar, batteries, and other materials, private user R&D activities, community engagement, and events.

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.

No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.

No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, Clean Buildings performance standards in RCW 19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?

Much of the research, development, demonstration, and deployment projects conducted by CEI faculty, staff and students in the Testbeds have line-of-sight connection the state meeting its goals for carbon pollution reductions. For example, Clean Energy Funded collaborations between UW and Snohomish PUD on solar and storage projects in Everett and Arlington, as well as the Seattle City Light Miller Community Center resilient energy project, have resulted in state of the art microgrid analysis tools that supported those individual project successes, while also being used by companies to evaluate new technologies to improve microgrid performance and the integration of solar and storage with the grid. About 120 companies use the Testbeds today, from diverse sectors of the economy, with many developing, testing, and validating new low carbon technologies with the potential to transform the energy efficiency and emission performance of building systems, electricity systems, information technology, transportation, and industrial processes. Completing CAMCET will dramatically enhance our ability to serve these companies innovating in the clean energy economy.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

At the University of Washington, diversity is integral to excellence. We value and honor diverse experiences and perspectives, strive to create welcoming and respectful learning environments, and promote access, opportunity, and justice for all.

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000141
SubProject Title: Clean Energy Institute (Located in CAMCET)
SubProject Class Preservation

CEI supports the next generation of clean energy leaders and innovators through our unique education, outreach, and research training programs. We fund Ph.D. students exploring new directions in clean energy research, and we host programs that help students build professional skills that will serve them in any field, whether it is research, policy, or climate technology. Our student Clean Energy Ambassadors visit K-12 classrooms across Washington state, and local community college instructors develop accessible clean energy curricula through our Research Experience for Teachers (RET) program.

In the past year 17% of the K-12 students we worked with (out of more than 2,400 total) came from Title 1 schools, Washington's most economically, ethnically, and racially diverse student bodies. CEI lesson plans and other educational resources are used in classrooms across the region and beyond. Build out of our community engagement spaces in CAMCET will expand opportunities for students and teachers from across Washington's diverse school districts.

This year, our community-engaged engineering capstone program brought engineering students to two rural, underserved northern Olympic Peninsula county offices to explore resilient energy for their natural-hazard prone region, as well as energy resiliency analysis for the Jamestown S'Klallam Tribe. Likewise, Testbed staff provided technical analysis for the Yakama Nation Housing Authority after establishing a nation-to-nation user agreement that was reviewed by the UW Attorney General's Office and Tribal legal counsel. These community-engaged programs will be enhanced by the planned Testbed capabilities in CAMCET.

12. Is there additional information you would like decision makers to know when evaluating this request?

Thanks to the funding support we have received from the state, the Clean Energy Institute is growing to support areas of national need where Washington state can lead. For example, CEI is expanding battery-related infrastructure and training programs to align with the state's demand for people and ideas that fuel innovation in battery materials and manufacturing. This growth complements Washington's major new federal funding and private capital to grow U.S. battery supply chains. Washington-based Group14 (co-founded by CEI TAC member Rick Luebbe) and Sila Nanotechnologies (a California-based company) each received $100 million via the federal Bipartisan Infrastructure Law, augmented by more than $500 million of private investment, to construct battery materials processing plants near Moses Lake. The demand for innovative ideas and talented battery scientists and engineers will continue to rise in Washington, and new investments will help CEI keep pace with this demand.

Another priority for state and federal policy is investing in clean energy projects that bring lower emissions, lower energy costs, new employment opportunities, and greater resiliency to disadvantaged communities. New state funds are helping CEI strengthen community ties by expanding our K-14 STEM educational programs and adding new technical assistance programs. CEI has a scalable model for supporting student design teams, research teams, and professional staff who can collaborate directly with communities and community-based organizations to assess the impact of traditional fossil energy on community health and to design clean energy systems that meet community goals. To expand university expertise in community-engaged energy research and training, CEI has helped the College of Engineering and College of Built Environments hire new faculty with expertise in community-scale energy infrastructure planning and design. As a neutral, trusted source of interdisciplinary technical, economic, and environmental analysis, UW is uniquely positioned to bring creative ideas and design strategies for equitable implementation of state and federal climate policies.

Location
City: Seattle **County:** King **Legislative District:** 043

Project Type

360 - University of Washington
Capital Project Request

2023-25 Biennium

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Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

Project Type

SubProject Number: 40000141
SubProject Title: Clean Energy Institute (Located in CAMCET)
SubProject Class Preservation
New Facilities/Additions (Major Projects)

Growth Management impacts
Not applicable.

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Prior Biennium	Current Biennium	2023-25 Fiscal Period: Reapprops	New Approps
26C-1	Climate Commit Accou-State	10,000,000				10,000,000
	Total	**10,000,000**	**0**	**0**	**0**	**10,000,000**

		Future Fiscal Periods: 2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000142
SubProject Title: UW Bothell - Central Plant Optimization & Gas Boiler Replacements
SubProject Class Preservation

OFM

360 - University of Washington
Capital Project Request

2023-25 Biennium

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Date Run: 9/26/2023 3:07PM

Project Number: **40000147**
Project Title: **FY24 Energy Renewal Program**
Project Class: **Preservation**

SubProjects

SubProject Number: **40000142**
SubProject Title: **UW Bothell - Central Plant Optimization & Gas Boiler Replacements**
SubProject Class **Preservation**

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests $6.5 million of funding from the Climate Commitment Account 26-C to support energy renewal upgrades at our Bothell Campus. This project will upgrade one (1) 1,000-ton chiller at the Central Plant and replace twenty-one (21) domestic gas heaters with electric gas heaters. These projects will help reduce our greenhouse gas emissions by installing more efficient equipment to bring the campus further into compliance with the Washington State Clean Buildings Standard.

Project Description

1. What is the problem/opportunity? Identify: priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

The University of Washington Bothell has several opportunities to help reduce our greenhouse gas emissions by installing more efficient equipment to bring the campus further into compliance with the Washington State Clean Building Standards. The campus also prioritizes the planned replacement of aging equipment that can further reduce equipment outages, reduce the need for service calls and costly maintenance, and reduce our use of phased out refrigerants, like R-22.

A key component of this project is upgrading one of the campus' main chillers. The new chiller will be more efficient and utilize a 513a environmentally acceptable refrigerant type. This investment will enable us to right size our chiller plant operation to best serve the campus chilled water needs. We are currently not able to efficiently operate the 1,000-ton chiller due to ongoing operational issues, high energy cost, and plant mechanical systems operational inefficiencies when the existing chiller is brought online.

2. What will the request produce or construct(predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased, and if so, which phase is included in the request. Provide detailed cost backup.

The proposed project will upgrade one (1) 1000-ton chiller, optimizing the campus' Physical Plant, and replace twenty-one (21) domestic gas heaters with electric gas heaters. The project cannot be phased.

Proposed Project Schedule:
ESCO Team Selection - June 2024
Design/Energy Audit - July 2024 through September 2024
Construction - September 2024 through September 2025
Project Closeout - October 2025 through December 2025
We do not anticipate any expenditures before July 2024

A detailed C-100 Cost Estimate is included in the decision package.

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000142
SubProject Title: UW Bothell - Central Plant Optimization & Gas Boiler Replacements
SubProject Class Preservation

The replacement of the 1000-ton chiller will allow us to meet the expectations in the Clean Buildings Performance Standard and eliminate our reliance on R-22 refrigerant. The chosen chiller model, a York YVAA, is one of the most energy efficient models on the market and can improve efficiency by up to 40%. It uses an eco-friendly refrigerant, eliminating the need for the campus to utilize R-22 refrigerant.

The replacement of aging natural gas heaters with electric heat pumps will eliminate the use of natural gas heating in all our buildings and will further reduce our greenhouse gas emissions.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

No alternatives were explored, since the new energy code is driving the elimination of natural gas source systems. In addition, our campus decarbonization plan is driving us to move away from natural gas-based heating systems.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The reliability of our campus will be increased with the replacement of aging, inefficient equipment, providing continuous service to our campus community that includes nearly 5,500 FTE.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share OF project cost allowable and the supporting citation or documentation.

No, this project will not leverage funding sources other than Climate Commitment Account funds.

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

*This project improves campus performance by providing cleaner running and efficient equipment. Additionally, it supports the goals of the **UW Bothell Campus Sustainability Action Plan**, established in 2018 and updated in 2022.The Action Plan included strategic goals to conserve energy and reduce greenhouse gas emissions. Replacement of high energy consuming equipment with more energy efficient equipment will contribute to the success of this goal. In addition, this investment will reduce our carbon emissions by switching our domestic hot water systems to clean electric energy.*

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.

No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.

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Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000142
SubProject Title: UW Bothell - Central Plant Optimization & Gas Boiler Replacements
SubProject Class Preservation

No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, Clean Buildings performance standards in RCW 19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?

The project meets the objectives established by the State of Washington in the following ways:

1) The chiller plant investment will enable us to continue to meet our clean building Energy Use Intensity (EUI) targets. We anticipate improving the energy efficiency of the plant by over 10% compared to operating the existing 1000-ton chiller.
2) Since R-22 refrigerant is no longer allowed in Washington State, an investment in a chiller with an eco-friendly refrigerant source will ensure that we are meeting all local and state environmental regulations around refrigerant requirements.
3) The domestic hot water heaters will eliminate the carbon emissions associated with natural gas heating. All new units will be electrical based and meet the state energy code requirements while supporting the UW Bothell vision of reducing carbon emissions on campus.
4) The chiller plant investment would enable our Tier 1 buildings to maintain their current EUI's and remain below the EUI for their intended Building Activity Types, even as the campus expands in both size and student population.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

This project will replace existing equipment and no community impact, other than the campus community, is expected.

12. Is there additional information you would like decision makers to know when evaluating this request?

Nothing at this time.

Location
City: Bothell **County:** King **Legislative District:** 001

Project Type
Infrastructure (Major Projects)

Growth Management impacts
Not applicable.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2023-25 Fiscal Period Reapprops	New Approps
26C-1	Climate Commit Accou-State	6,500,000				6,500,000
	Total	**6,500,000**	**0**	**0**	**0**	**6,500,000**

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000142
SubProject Title: UW Bothell - Central Plant Optimization & Gas Boiler Replacements
SubProject Class Preservation

		Future Fiscal Periods			
		2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000143
SubProject Title: UW Tacoma - Gas Boiler Replacements
SubProject Class Preservation

OFM

360 - University of Washington
Capital Project Request

2023-25 Biennium

*

Version: 11 FY24 Supplemental Budget FINAL

Report Number: CBS002
Date Run: 9/26/2023 3:07PM

Project Number: **40000147**
Project Title: **FY24 Energy Renewal Program**
Project Class: **Preservation**

SubProjects

SubProject Number: **40000143**
SubProject Title: **UW Tacoma - Gas Boiler Replacements**
SubProject Class **Preservation**

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests $8.4 million of funding from the Climate Commitment Account 26-C to support energy renewal upgrades at our Tacoma Campus. The project would replace gas-fired boilers and associated infrastructure components with electric condenser boilers or heat pumps in compliance with the Washington State Clean Buildings Performance Standard. Both options are energy efficient and meet the Department of Energy's and ASHRAE's recommendation of replacing gas-fired equipment.

Project Description

1. What is the problem/opportunity? Identify priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

UW Tacoma campus's primary heating source is natural gas (category, Schedule 41/PSE), used to heat hydronic (hot water) loops. Inefficient gas-fired boilers are increasing in maintenance costs due to end-life cycle components, alternative third-party replacement parts, and insufficient qualified, skilled trades to maintain legacy equipment.

There is an opportunity to eliminate the use of fossil fuels for heating and improve outdoor and indoor air quality in an underserved community. The underserving community, such as the Tacoma community, relies on the UW Tacoma campus as a gathering resource to be a welcoming space for student use, engagement, outreach opportunities, and- academic and professional development. The bulk of the proposed power source is electricity that comes from clean, renewable hydroelectric energy. The operating cost is half the cost of using natural gas (therms).

The project will also directly benefit the underserved community by providing clean energy solutions and the University's leading commitment to decarbonize.

2. What will the request produce or construct (predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased in, and if so, which phase is included in the request. Provide detailed cost backup.

The request will produce sustainable energy-efficient hydronic systems that will benefit UW Tacoma and Tacoma community. Due to weather-dependent heating support, the project will be phased in during the cooling seasons and completed at the beginning of the heating season over two years. This request is for the first phase of carbon reduction projects on the Tacoma Campus.

Proposed Project Schedule:
Design - July 2024 through March 2025
Construction - March 2025 through October 2026

A detailed C-100 Cost Template is included in the decision package.

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000143
SubProject Title: UW Tacoma - Gas Boiler Replacements
SubProject Class Preservation

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?

The request would resolve/address unscheduled downtime that impacts the teaching and learning environment and reduce the impact on a stressed operating budget. It would also eliminate fossil fuels for heating campus hydronic loops and reduce greenhouse gas emissions. No action would result in continued unscheduled interruptions to the teaching and learning environment (too cold/too hot buildings); impacting the operating budget on reactive repairs. The University of Washington Tacoma is an urban campus that supports a largely underserved community.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

The project would replace the gas-fired boilers and associated infrastructure components with electric condenser boilers or heat pumps in compliance with the Washington State Clean Buildings Performance Standard. Both options are energy efficient and meet the Department of Energy's and ASHRAE's recommendation of replacing gas-fired equipment.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The budget request benefits generations of the UW Tacoma campus community, the Tacoma community, and future patrons.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state(or other) share OF project cost allowable and the supporting citation or documentation.

No, this project will not leverage funding sources other than Climate Commitment Account funds.

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

These infrastructure improvements align with the 2008 UW Tacoma Campus Master Plan.

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.

No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.

No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050,

OFM

360 - University of Washington
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Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000143
SubProject Title: UW Tacoma - Gas Boiler Replacements
SubProject Class Preservation

Clean Buildings performance standards in RCW19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?

The project complies with the 2009 UW Climate Action Plan (CAP) and the new, comprehensive 2020 UW Sustainability Action Plan which aligns with the latest greenhouse gas emissions limits set forth in the RCW. The Sustainability Action Plan builds on the work of the Climate Action Plan to reflect the UW's current sustainability goals.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

The project would significantly impact the Tacoma and South Puget Sound Communities (10/high risks). Environmental Health Disparities Ratings, ranked from (1 low risk) up to 10 (high risk), are as follows:
> Environmental Exposures (10 – highest risk);
> Environmental Effects (10);
> Socioeconomic Factors (9 and 10); and
> Sensitive, Populations (10 – highest risk).
Resource: https://fortress.wa.gov/doh/wtn/WTNIBL/Map/EHD. According to the Washington State Department of Health Dashboard, the UW Tacoma campus and its surrounding neighborhoods have an extremely high risk of health disparities factors.

12. Is there additional information you would like decision-makers to know when evaluating this request?

Approved funding will resolve the issue of non-compliance with the Washington State Clean Building Act. In addition, replacing essential heating equipment will reduce UW Tacoma's deferred maintenance, reduce unscheduled maintenance repairs, and reduce impact on the teaching and learning environment. Without being granted this request, it will take UW Tacoma decades to eliminate the use of fossil fuels as a heating source.

Location
City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type
Infrastructure (Major Projects)

Growth Management impacts
Not applicable.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2023-25 Fiscal Period Reapprops	2023-25 Fiscal Period New Approps
26C-1	Climate Commit Accou-State	8,400,000				8,400,000
	Total	**8,400,000**	**0**	**0**	**0**	**8,400,000**

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Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000143
SubProject Title: UW Tacoma - Gas Boiler Replacements
SubProject Class Preservation

		Future Fiscal Periods			
		2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000144
SubProject Title: UWMC - NW Campus Central Utility Plant Planning
SubProject Class Preservation

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000144
SubProject Title: UWMC - NW Campus Central Utility Plant Planning
SubProject Class Preservation

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests $2 million of funding from the Climate Commitment Account 26-C to support the preparation of a predesign/feasibility study for a Central Utility Plant at the 44-acre UW Medical Center - Northwest Campus in North Seattle. This project would take the initial steps in creating an implementation plan to develop a Central Utility Plant which will address the decentralized utility infrastructure (meaning individual utility systems provided at each facility) which creates problems in terms of maintenance, reliability, and excess energy consumption working towards the ultimate goal of campus decarbonization.

Project Description

1. What is the problem/opportunity? Identify: priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

The utility infrastructure of the community-based, non-profit hospital located at UW Medical Center - Northwest (UWMC NW) is currently decentralized and this creates problems in terms of maintenance, reliability, and excess energy consumption. This project would take the initial steps in creating a phased plan to develop a Central Utility Plant which will address the aforementioned issues, as well as working towards the ultimate goal of campus decarbonization.

2. What will the request produce or construct (predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased, and if so, which phase is included in the request. Provide detailed cost backup.

The request would produce a predesign/feasibility study to determine the best approach to developing a Central Utility Plant on the UWMC NW Campus. If funding is provided, work on the study would begin in June/July 2024 and conclude by June 2025. No phasing of the study work is anticipated.

A detailed C-100 Cost Template is included in the decision package.

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?

If the request is not funded, the UWMC NW Campus will continue to struggle with a deteriorating, decentralized utility infrastructure that will preclude the necessary upgrades and growth in service that are planned for the facility. Continued reliance on outdated, decentralized equipment strains maintenance resources and puts the UWMC - NW Campus at risk of increased service disruptions and equipment failures that do not serve the public's best interest.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

There are no alternatives that will deliver the same results to address the aging, decentralized utility infrastructure other than defining an approach to develop a Central Utility Plant.

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000144
SubProject Title: UWMC - NW Campus Central Utility Plant Planning
SubProject Class Preservation

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The patients, staff, and surrounding community of UW Medical Center - Northwest are the primary clientele for this request. UWMC NW is a full-service medical center that offers emergency and inpatient and outpatient medical, surgical, and therapeutic care. The hospital offers personalized, quality care on a beautiful, easy-to-access, 44-acre campus that includes the neighboring Northwest Outpatient Medical Center and Specialty Care Meridian Pavilion. Creating a Central Utility Plant to support this North Seattle facility will benefit thousands.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share OF project cost allowable and the supporting citation or documentation.

No, this project will not leverage funding sources other than Climate Commitment Account funds.

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

UWMC NW is currently in the process of updating their existing 1991 Master Plan with a strategic Major Institution Master Plan (MIMP) to help guide development of the 44-acre Northwest Campus over the next several decades to help support anticipated growth in both inpatient (103%) and outpatient (45%) services. The development of a Central Utility Plant to support both new and existing development is a foundational piece of the MIMP strategy.

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.

No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.

No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, Clean Buildings performance standards in RCW19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?

The new Central Utility Plant facility would be built with state of the art, district energy capabilities which would limit greenhouse gas emissions and ensure compliance with the Clean Buildings Performance Standard and other agency mandates.

This project would also allow the UWMC NW to replace numerous pieces of antiquated equipment and building systems that

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000144
SubProject Title: UWMC - NW Campus Central Utility Plant Planning
SubProject Class Preservation

currently contribute to unnecessary energy consumption purely due to the inefficient nature of the old technology. In addition, continued reliance on this outdated equipment strains maintenance resources and puts the UWMC NW Campus at risk of increased service disruptions and equipment failures.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

The University believes that both new and renovated facilities do a much better job of taking historically marginalized communities into account. In this case, the ability to provide reliable utility systems for the entire UWMC NW Campus portfolio will ensure that the communities served by this facility will continue to have access to a full-service medical center well into the future.

12. Is there additional information you would like decision makers to know when evaluating this request?

Development of a Central Utility Plant is the key component to upgrading the UWMC NW Campus utility infrastructure towards a goal of 100% clean energy and decarbonizing the existing heating and cooling systems.

Location
City: Seattle **County:** King **Legislative District:** 046

Project Type
Infrastructure (Major Projects)

Growth Management impacts
Not applicable.

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Prior Biennium	Current Biennium	2023-25 Fiscal Period: Reapprops	New Approps
26C-1	Climate Commit Accou-State	2,000,000				2,000,000
	Total	**2,000,000**	**0**	**0**	**0**	**2,000,000**

Acct Code	Account Title	Future Fiscal Periods: 2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

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Capital Project Request

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Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000144
SubProject Title: UWMC - NW Campus Central Utility Plant Planning
SubProject Class Preservation
Narrative

This funding supports a predesign/feasibility study.

SubProject Number: 40000145
SubProject Title: UWMC - Montlake Campus HVAC Systems Renewal
SubProject Class Preservation

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Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000145
SubProject Title: UWMC - Montlake Campus HVAC Systems Renewal
SubProject Class Preservation

Starting Fiscal Year: 2024
Agency Priority: 2

Project Summary

The University of Washington requests $8 million of funding from the Climate Commitment Account 26-C to fund HVAC Systems Renewal projects for our UW Medical Center Montlake Campus. A recent UWMC facility condition assessment identified numerous critical assets related to HVAC systems that are long past their expected service life and prone to failure.

Project Description

1. What is the problem/opportunity? Identify: priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

The UW Medical Center - Montlake has numerous aging HVAC units that are at end-of-life and need to be replaced to avoid service disruptions. These new units will be more energy efficient, reducing electrical consumption and increasing reliability.

2. What will the request produce or construct (predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased, and if so, which phase is included in the request. Provide detailed cost backup.

The request would support installation (construction) of several new HVAC units and associated equipment to address failing assets. If funding is provided, work on design/procurement would begin in June/July 2024 and conclude by June 2025. No phasing of the work is anticipated.

A detailed C-100 Cost Template is included in the decision package.

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?

The result of not taking action could be failure of the HVAC units, which would require a reduction/disruption of services at UWMC.

There are no alternatives that will deliver the same results to address the failing equipment.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

There are no alternatives to replacing these end-of-life HVAC units and associated systems. When they fail, they must be replaced.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The patients, staff, and surrounding community of UW Medical Center – Montlake Campus are the primary clientele for this

Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000145
SubProject Title: UWMC - Montlake Campus HVAC Systems Renewal
SubProject Class Preservation

request. Every day, more than 5,500 dedicated and compassionate UWMC team members bring passion and commitment to the care of our patients and their families. UW Medical Center - Montlake is one of the world's foremost academic health centers, delivering exceptional, multidisciplinary care to a vast array of patients who come to us from across the globe.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share OF project cost allowable and the supporting citation or documentation.

No, this project will not leverage funding sources other than Climate Commitment Account funds.

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

This project is aligned with the 2019 University of Washington Master Plan, which includes a 10-year conceptual plan as required by the City-University Agreement and provides design guidance and development standards for plan implementation. The Seattle City Council and Board of Regents approved the plan in February 2019.

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.

No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.

No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, Clean Buildings performance standards in RCW19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?

This project would allow the UWMC Montlake Campus to replace several pieces of HVAC equipment and building systems that currently contribute to unnecessary energy consumption purely due to the inefficient nature of the decades old technology. In addition, continued reliance on this end-of-life equipment strains maintenance resources and puts the UWMC Montlake Campus at risk of increased service disruptions and equipment failures.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

The University believes that both new and renovated facilities do a much better job of taking historically marginalized communities into account. In this case, the ability to provide reliable HVAC systems for portions of the UWMC Montlake Campus portfolio will ensure that the communities served by this facility will continue to benefit from the medical center well

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Project Number: 40000147
Project Title: FY24 Energy Renewal Program
Project Class: Preservation

SubProjects

SubProject Number: 40000145
SubProject Title: UWMC - Montlake Campus HVAC Systems Renewal
SubProject Class Preservation

into the future.

12. Is there additional information you would like decision makers to know when evaluating this request?

Not at this time.

Location
City: Seattle **County:** King **Legislative District:** 043

Project Type
Infrastructure (Major Projects)

Growth Management impacts
Not applicable.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2023-25 Fiscal Period Reapprops	New Approps
26C-1	Climate Commit Accou-State	8,000,000				8,000,000
	Total	**8,000,000**	**0**	**0**	**0**	**8,000,000**

Acct Code	Account Title	Future Fiscal Periods 2025-27	2027-29	2029-31	2031-33
26C-1	Climate Commit Accou-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

OFM

Capital Project Request

2023-25 Biennium

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Parameter	Entered As	Interpreted As
Biennium	2023-25	2023-25
Agency	360	360
Version	11-A	11-A
Project Classification	*	All Project Classifications
Capital Project Number	40000147	40000147
Sort Order	Project Class	Project Class
Include Page Numbers	N	No
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington	
Project Name	UW Seattle - Centralized Chilled Water Capacity Improvements	
OFM Project Number	40000140	

Contact Information		
Name	John Wetzel	
Phone Number	(206) 616-5924	
Email	wetzej@uw.edu	

Statistics			
Gross Square Feet	N/A	MACC per Gross Square Foot	
Usable Square Feet	N/A	Escalated MACC per Gross Square Foot	
Alt Gross Unit of Measure	N/A		
Space Efficiency		A/E Fee Class	B
Construction Type	Other Sch. B Projects	A/E Fee Percentage	11.12%
Remodel	Yes	Projected Life of Asset (Years)	
Additional Project Details			
Procurement Approach	DB-Criteria	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.25%	Location Used for Tax Rate	Seattle
Contingency Rate	10%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start	July-24	Predesign End	July-24
Design Start	July-24	Design End	September-24
Construction Start	October-24	Construction End	June-25
Construction Duration	9 Months		

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Project Cost Summary

Total Project	$13,429,293	Total Project Escalated	$14,000,000
		Rounded Escalated Total	$14,000,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$14,000,000**
Next Biennium	**$0**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
Design Phase Services	$795,627		
Extra Services	$755,000		
Other Services	$358,019		
Design Services Contingency	$211,387		
Consultant Services Subtotal	**$2,120,033**	**Consultant Services Subtotal Escalated**	**$2,197,555**

Construction			
Maximum Allowable Construction Cost (MACC)	$8,525,000	Maximum Allowable Construction Cost (MACC) Escalated	$8,891,608
DB-Criteria Risk Contingencies	$0		
DB-Criteria Management	$0		
Owner Construction Contingency	$852,500		$894,273
Non-Taxable Items	$0		$0
Sales Tax	$961,194	Sales Tax Escalated	$1,003,053
Construction Subtotal	**$10,338,694**	**Construction Subtotal Escalated**	**$10,788,934**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$607,274		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$607,274**	**Project Administration Subtotal Escalated**	**$637,031**

Other Costs			
Other Costs Subtotal	**$363,292**	**Other Costs Subtotal Escalated**	**$376,480**

Project Cost Estimate			
Total Project	**$13,429,293**	Total Project Escalated	**$14,000,000**
		Rounded Escalated Total	**$14,000,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0		**$0**
Consultant Services					
Consultant Services Subtotal	$2,197,555		$2,197,555		**$0**
Construction					
Construction Subtotal	$10,788,934		$10,788,934		**$0**
Equipment					
Equipment Subtotal	$0		$0		**$0**
Artwork					
Artwork Subtotal	$0		$0		**$0**
Agency Project Administration					
Project Administration Subtotal	$637,031		$637,031		**$0**
Other Costs					
Other Costs Subtotal	$376,480		$376,480		**$0**
Project Cost Estimate					
Total Project	**$14,000,000**	**$0**	**$14,000,000**	**$0**	**$0**
	$14,000,000	**$0**	**$14,000,000**	**$0**	**$0**
	Percentage requested as a new appropriation		**100%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Design and construction.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0278**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$719,517			69% of A/E Basic Services
WSST	$76,110			
Insert Row Here				
Sub TOTAL	**$795,627**	**1.0320**	**$821,088**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning	$460,000			
Site Survey				
Testing	$200,000			Haz Mat + Final Testing
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Additional Services	$95,000			
Insert Row Here				
Sub TOTAL	**$755,000**	**1.0320**	**$779,160**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$323,261			31% of A/E Basic Services
HVAC Balancing				
Staffing				
WSST	$34,758			
Insert Row Here				
Sub TOTAL	**$358,019**	**1.0490**	**$375,562**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$190,865			
WSST	$20,522			
Insert Row Here				
Sub TOTAL	**$211,387**	**1.0490**	**$221,745**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$2,120,033**		**$2,197,555**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$450,000			
G20 - Site Improvements	$75,000			
G30 - Site Mechanical Utilities	$3,500,000			
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				G10 = Pipe Demo, Scanning, Anchors in Tunnel
Insert Row Here				G20 = Restoration around tunnel vault after excavation
Sub TOTAL	**$4,025,000**	**1.0363**	**$4,171,108**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0363**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems	$4,500,000			
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Other Direct Cost				
Insert Row Here				
Sub TOTAL	**$4,500,000**	**1.0490**	**$4,720,500**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$8,525,000**		**$8,891,608**	
	NA		*NA per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$852,500			
Other				
Insert Row Here				
Sub TOTAL	**$852,500**	**1.0490**	**$894,273**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0490**	**$0**	
9) Sales Tax				
Sub TOTAL	**$961,194**		**$1,003,053**	
CONSTRUCTION CONTRACTS TOTAL	**$10,338,694**		**$10,788,934**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0490**	**$0**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0490**	**$0**	
3) Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$70,000				0.5% of total project cost for new and renewal construction
Other	-$70,000				Art requirement does not apply
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$607,274				
Additional Services					
Other					
Insert Row Here					
Subtotal of Other	*$0*				
PROJECT MANAGEMENT TOTAL	**$607,274**		**1.0490**	**$637,031**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal	$160,000				
Historic and Archeological Mitigation					
Engineering Services + In-Plant	$200,000				
Procurement	$1,500				
Document Reproduction	$1,500				
Rounding Entry	$292				
OTHER COSTS TOTAL	**$363,292**		**1.0363**	**$376,480**	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington
Project Name	Clean Energy Institute (located in CAMCET)
OFM Project Number	40000141

Contact Information	
Name	John Wetzel
Phone Number	(206) 616-5924
Email	wetzej@uw.edu

Statistics			
Gross Square Feet	10,000	MACC per Gross Square Foot	$530
Usable Square Feet	10,000	Escalated MACC per Gross Square Foot	$572
Alt Gross Unit of Measure			
Space Efficiency	100.0%	A/E Fee Class	A
Construction Type	Laboratories (Research)	A/E Fee Percentage	10.05%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Procurement Approach	DBB	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.25%	Location Used for Tax Rate	Seattle
Contingency Rate	5%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start		Predesign End	
Design Start	July-24	Design End	June-25
Construction Start	July-25	Construction End	July-26
Construction Duration	12 Months		

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Project Cost Summary

Total Project	$9,278,287	Total Project Escalated	$10,000,000
		Rounded Escalated Total	$10,000,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$10,000,000**
Next Biennium	**$0**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
Design Phase Services	$385,541		
Extra Services	$50,000		
Other Services	$198,214		
Design Services Contingency	$31,688		
Consultant Services Subtotal	**$665,443**	**Consultant Services Subtotal Escalated**	**$702,580**

Construction			
Maximum Allowable Construction Cost (MACC)	$5,295,000	Maximum Allowable Construction Cost (MACC) Escalated	$5,715,953
DBB Risk Contingencies	$0		
DBB Management	$0		
Owner Construction Contingency	$264,750		$285,798
Non-Taxable Items	$0		$0
Sales Tax	$569,874	Sales Tax Escalated	$615,179
Construction Subtotal	**$6,129,624**	**Construction Subtotal Escalated**	**$6,616,930**

Equipment			
Equipment	$1,750,000		
Sales Tax	$179,375		
Non-Taxable Items	$0		
Equipment Subtotal	**$1,929,375**	**Equipment Subtotal Escalated**	**$2,082,761**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$439,473		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$105,900		
Project Administration Subtotal	**$545,373**	**Project Administration Subtotal Escalated**	**$588,731**

Other Costs			
Other Costs Subtotal	**$8,472**	**Other Costs Subtotal Escalated**	**$8,998**

Project Cost Estimate			
Total Project	**$9,278,287**	Total Project Escalated	**$10,000,000**
		Rounded Escalated Total	**$10,000,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0		**$0**
Consultant Services					
Consultant Services Subtotal	$702,580		$702,580		**$0**
Construction					
Construction Subtotal	$6,616,930		$6,616,930		**$0**
Equipment					
Equipment Subtotal	$2,082,761		$2,082,761		**$0**
Artwork					
Artwork Subtotal	$0		$0		**$0**
Agency Project Administration					
Project Administration Subtotal	$588,731		$588,731		**$0**
Other Costs					
Other Costs Subtotal	$8,998		$8,998		**$0**
Project Cost Estimate					
Total Project	**$10,000,000**	**$0**	**$10,000,000**	**$0**	**$0**
	$10,000,000	**$0**	**$10,000,000**	**$0**	**$0**
	Percentage requested as a new appropriation		**100%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Design and construction.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0278**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$385,541			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$385,541**	**1.0433**	**$402,235**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Specialty Lab Consultant	$50,000			
Insert Row Here				
Sub TOTAL	**$50,000**	**1.0433**	**$52,165**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$173,214			31% of A/E Basic Services
HVAC Balancing	$25,000			
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$198,214**	**1.0795**	**$213,973**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$31,688			
Other				
Insert Row Here				
Sub TOTAL	**$31,688**	**1.0795**	**$34,207**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$665,443**		**$702,580**	

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Cost Estimate Details

Construction Contracts					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work					
G10 - Site Preparation					
G20 - Site Improvements					
G30 - Site Mechanical Utilities					
G40 - Site Electrical Utilities					
G60 - Other Site Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0620**	**$0**	
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation					
Stormwater Retention/Detention					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0620**	**$0**	
3) Facility Construction					
A10 - Foundations					
A20 - Basement Construction					
B10 - Superstructure					
B20 - Exterior Closure					
B30 - Roofing					
C10 - Interior Construction	$5,295,000				
C20 - Stairs					
C30 - Interior Finishes					
D10 - Conveying					
D20 - Plumbing Systems					
D30 - HVAC Systems					
D40 - Fire Protection Systems					
D50 - Electrical Systems					
F10 - Special Construction					
F20 - Selective Demolition					
General Conditions					
Other Direct Cost					
Insert Row Here					
Sub TOTAL	**$5,295,000**		**1.0795**	**$5,715,953**	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	**$5,295,000**			**$5,715,953**	
	$530			*$572 per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$264,750			
Other				
Insert Row Here				
Sub TOTAL	**$264,750**	**1.0795**	**$285,798**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0795**	**$0**	
9) Sales Tax				
Sub TOTAL	**$569,874**		**$615,179**	
CONSTRUCTION CONTRACTS TOTAL	**$6,129,624**		**$6,616,930**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment	$1,250,000				
E20 - Furnishings	$500,000				
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$1,750,000**		**1.0795**	**$1,889,125**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0795**	**$0**	
3) Sales Tax					
Sub TOTAL	**$179,375**			**$193,636**	
EQUIPMENT TOTAL	**$1,929,375**			**$2,082,761**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$50,000				0.5% of total project cost for new and renewal construction
Other	-$50,000				Art requirement does not apply
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$439,473				
Additional Services					
Construction Management	$105,900				2% of MACC
Insert Row Here					
Subtotal of Other	*$105,900*				
PROJECT MANAGEMENT TOTAL	**$545,373**		**1.0795**	**$588,731**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Permitting	$2,500				
Procurement	$750				
In House Services/EH&S	$5,000				
Rounding Entry	$222				
OTHER COSTS TOTAL	**$8,472**		**1.0620**	**$8,998**	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington
Project Name	UW Bothell - Central Plant Optimization & Gas Boiler Replacements
OFM Project Number	40000142

Contact Information	
Name	John Wetzel
Phone Number	(206) 616-5924
Email	wetzej@uw.edu

Statistics			
Gross Square Feet	N/A	MACC per Gross Square Foot	
Usable Square Feet	N/A	Escalated MACC per Gross Square Foot	
Alt Gross Unit of Measure	N/A		
Space Efficiency		A/E Fee Class	B
Construction Type	Other Sch. B Projects	A/E Fee Percentage	11.79%
Remodel	Yes	Projected Life of Asset (Years)	20
Additional Project Details			
Procurement Approach	DBB	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.50%	Location Used for Tax Rate	Bothell, WA
Contingency Rate	5%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	N/A
Project Administered By	DES		

Schedule			
Predesign Start	June-24	Predesign End	July-24
Design Start	July-24	Design End	September-24
Construction Start	September-24	Construction End	September-25
Construction Duration	12 Months		

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Project Cost Summary

Total Project	$6,194,693	Total Project Escalated	$6,500,000
		Rounded Escalated Total	$6,500,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$6,500,000**
Next Biennium	**$0**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
Design Phase Services	$405,311		
Extra Services	$0		
Other Services	$182,096		
Design Services Contingency	$29,370		
Consultant Services Subtotal	**$616,778**	**Consultant Services Subtotal Escalated**	**$639,882**

Construction			
Maximum Allowable Construction Cost (MACC)	$4,745,000	Maximum Allowable Construction Cost (MACC) Escalated	$4,985,097
DBB Risk Contingencies	$0		
DBB Management	$0		
Owner Construction Contingency	$237,250		$249,255
Non-Taxable Items	$0		$0
Sales Tax	$523,136	Sales Tax Escalated	$549,607
Construction Subtotal	**$5,505,386**	**Construction Subtotal Escalated**	**$5,783,959**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$0		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$70,106		
Project Administration Subtotal	**$70,106**	**Project Administration Subtotal Escalated**	**$73,654**

Other Costs			
Other Costs Subtotal	**$2,423**	**Other Costs Subtotal Escalated**	**$2,505**

Project Cost Estimate			
Total Project	**$6,194,693**	Total Project Escalated	**$6,500,000**
		Rounded Escalated Total	**$6,500,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0		**$0**
Consultant Services					
Consultant Services Subtotal	$639,882		$639,882		**$0**
Construction					
Construction Subtotal	$5,783,959		$5,783,959		**$0**
Equipment					
Equipment Subtotal	$0		$0		**$0**
Artwork					
Artwork Subtotal	$0		$0		**$0**
Agency Project Administration					
Project Administration Subtotal	$73,654		$73,654		**$0**
Other Costs					
Other Costs Subtotal	$2,505		$2,505		**$0**
Project Cost Estimate					
Total Project	**$6,500,000**	**$0**	**$6,500,000**	**$0**	**$0**
	$6,500,000	**$0**	**$6,500,000**	**$0**	**$0**
	Percentage requested as a new appropriation		**100%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Design and construction.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0278**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$405,311			69% of A/E Basic Services
Design				
Insert Row Here				
Sub TOTAL	**$405,311**	**1.0306**	**$417,714**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0306**	**$0**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$182,096			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$182,096**	**1.0506**	**$191,311**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$29,370			
Other				
Insert Row Here				
Sub TOTAL	**$29,370**	**1.0506**	**$30,857**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$616,778**		**$639,882**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation				
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0335**	**$0**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0335**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems	$3,640,000			
D40 - Fire Protection Systems				
D50 - Electrical Systems	$325,000			
F10 - Special Construction	$60,000			
F20 - Selective Demolition	$45,000			
General Conditions	$390,000			
Other Direct Costs	$225,000			
Construction Bond	$60,000			
Sub TOTAL	**$4,745,000**	**1.0506**	**$4,985,097**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$4,745,000**		**$4,985,097**	
	NA		*NA per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$237,250			
Other				
Insert Row Here				
Sub TOTAL	**$237,250**	**1.0506**	**$249,255**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0506**	**$0**	
9) Sales Tax				
Sub TOTAL	**$523,136**		**$549,607**	
CONSTRUCTION CONTRACTS TOTAL	**$5,505,386**		**$5,783,959**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0506**	**$0**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0506**	**$0**	
3) Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$32,500				0.5% of total project cost for new and renewal construction
Other	-$32,500				Artwork requirement does not apply
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$0				
Additional Services					
DES PM	$70,106				
Subtotal of Other	*$70,106*				
PROJECT MANAGEMENT TOTAL	**$70,106**		**1.0506**	**$73,654**	

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Cost Estimate Details

Other Costs				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs				
Hazardous Material Remediation/Removal				
Historic and Archeological Mitigation				
Procurement	$1,500			
Document Reproduction	$750			
Rounding Entry	$173			
OTHER COSTS TOTAL	**$2,423**	**1.0335**	**$2,505**	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington	
Project Name	UW Tacoma - Gas Boiler Replacements	
OFM Project Number	40000143	

Contact Information		
Name	John Wetzel	
Phone Number	(206) 616-5924	
Email	wetzej@uw.edu	

Statistics			
Gross Square Feet	N/A	MACC per Gross Square Foot	
Usable Square Feet	N/A	Escalated MACC per Gross Square Foot	
Alt Gross Unit of Measure	N/A		
Space Efficiency		A/E Fee Class	A
Construction Type	Heating and power plant	A/E Fee Percentage	13.00%
Remodel	Yes	Projected Life of Asset (Years)	20
Additional Project Details			
Procurement Approach	DB-Criteria	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.30%	Location Used for Tax Rate	Tacoma
Contingency Rate	10%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	N/A
Project Administered By	Agency		

Schedule			
Predesign Start		Predesign End	
Design Start	July-24	Design End	March-25
Construction Start	March-25	Construction End	October-26
Construction Duration	20 Months		

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Project Cost Summary

Total Project	$7,801,972	Total Project Escalated	$8,400,000
		Rounded Escalated Total	$8,400,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$8,400,000**
Next Biennium	**$0**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
Design Phase Services	$520,978		
Extra Services	$0		
Other Services	$284,062		
Design Services Contingency	$80,504		
Consultant Services Subtotal	**$885,544**	**Consultant Services Subtotal Escalated**	**$934,847**

Construction			
Maximum Allowable Construction Cost (MACC)	$5,280,000	Maximum Allowable Construction Cost (MACC) Escalated	$5,699,760
DB-Criteria Risk Contingencies	$0		
DB-Criteria Management	$0		
Owner Construction Contingency	$528,000		$569,976
Non-Taxable Items	$0		$0
Sales Tax	$598,224	Sales Tax Escalated	$645,783
Construction Subtotal	**$6,406,224**	**Construction Subtotal Escalated**	**$6,915,519**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$471,273		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$471,273**	**Project Administration Subtotal Escalated**	**$508,740**

Other Costs			
Other Costs Subtotal	**$38,931**	**Other Costs Subtotal Escalated**	**$40,894**

Project Cost Estimate			
Total Project	**$7,801,972**	Total Project Escalated	**$8,400,000**
		Rounded Escalated Total	**$8,400,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0		**$0**
Consultant Services					
Consultant Services Subtotal	$934,847		$934,847		**$0**
Construction					
Construction Subtotal	$6,915,519		$6,915,519		**$0**
Equipment					
Equipment Subtotal	$0		$0		**$0**
Artwork					
Artwork Subtotal	$0		$0		**$0**
Agency Project Administration					
Project Administration Subtotal	$508,740		$508,740		**$0**
Other Costs					
Other Costs Subtotal	$40,894		$40,894		**$0**
Project Cost Estimate					
Total Project	**$8,400,000**	**$0**	**$8,400,000**	**$0**	**$0**
	$8,400,000	**$0**	**$8,400,000**	**$0**	**$0**
	Percentage requested as a new appropriation		**100%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Design and construction.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0278**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$520,978			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$520,978**	**1.0390**	**$541,296**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0390**	**$0**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$234,062			31% of A/E Basic Services
HVAC Balancing	$50,000			
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$284,062**	**1.0795**	**$306,646**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$80,504			
Other				
Insert Row Here				
Sub TOTAL	**$80,504**	**1.0795**	**$86,905**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$885,544**		**$934,847**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation				
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0504**	**$0**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0504**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure	$250,000			
B30 - Roofing	$800,000			
C10 - Interior Construction	$50,000			
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems	$50,000			
D30 - HVAC Systems	$2,880,000			
D40 - Fire Protection Systems				
D50 - Electrical Systems	$1,250,000			
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Other Direct Cost				
Insert Row Here				
Sub TOTAL	**$5,280,000**	**1.0795**	**$5,699,760**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$5,280,000**		**$5,699,760**	
	NA		*NA per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$528,000			
Other				
Insert Row Here				
Sub TOTAL	**$528,000**	**1.0795**	**$569,976**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0795**	**$0**	
9) Sales Tax				
Sub TOTAL	**$598,224**		**$645,783**	
CONSTRUCTION CONTRACTS TOTAL	**$6,406,224**		**$6,915,519**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0795**	**$0**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0795**	**$0**	
3) Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$42,000				0.5% of total project cost for new and renewal construction
Other	-$42,000				Art requirement does not apply
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$471,273				
Additional Services					
Other					
Insert Row Here					
Subtotal of Other	*$0*				
PROJECT MANAGEMENT TOTAL	**$471,273**		**1.0795**	**$508,740**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal	$35,000				
Historic and Archeological Mitigation					
Permitting	$3,500				
Rounding Entry	$431				
OTHER COSTS TOTAL	**$38,931**		**1.0504**	**$40,894**	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington
Project Name	UWMC - NW Campus Central Utility Plant Planning
OFM Project Number	40000144

Contact Information	
Name	John Wetzel
Phone Number	(206) 616-5924
Email	wetzej@uw.edu

Statistics			
Gross Square Feet	N/A	MACC per Gross Square Foot	
Usable Square Feet	N/A	Escalated MACC per Gross Square Foot	
Alt Gross Unit of Measure	N/A		
Space Efficiency		A/E Fee Class	A
Construction Type	Heating and power plant	A/E Fee Percentage	14.40%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Procurement Approach	DBB	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.25%	Location Used for Tax Rate	Seattle
Contingency Rate	5%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	N/A
Project Administered By	Agency		

Schedule			
Predesign Start	July-24	Predesign End	June-25
Design Start		Design End	
Construction Start		Construction End	
Construction Duration	0 Months		

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Project Cost Summary

Total Project	$2,000,000	Total Project Escalated	$2,000,000
		Rounded Escalated Total	$2,000,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$2,000,000**
Next Biennium	**$0**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$1,500,000		
Design Phase Services	$0		
Extra Services	$185,000		
Other Services	$0		
Design Services Contingency	$84,250		
Consultant Services Subtotal	**$1,769,250**	**Consultant Services Subtotal Escalated**	**$1,769,250**

Construction			
Maximum Allowable Construction Cost (MACC)	$0	Maximum Allowable Construction Cost (MACC) Escalated	$0
DBB Risk Contingencies	$0		
DBB Management	$0		
Owner Construction Contingency	$0		$0
Non-Taxable Items	$0		$0
Sales Tax	$0	Sales Tax Escalated	$0
Construction Subtotal	**$0**	**Construction Subtotal Escalated**	**$0**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$204,668		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$204,668**	**Project Administration Subtotal Escalated**	**$204,668**

Other Costs			
Other Costs Subtotal	**$26,082**	**Other Costs Subtotal Escalated**	**$26,082**

Project Cost Estimate			
Total Project	**$2,000,000**	Total Project Escalated	**$2,000,000**
		Rounded Escalated Total	**$2,000,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0		**$0**
Consultant Services					
Consultant Services Subtotal	$1,769,250		$1,769,250		**$0**
Construction					
Construction Subtotal	$0		$0		**$0**
Equipment					
Equipment Subtotal	$0		$0		**$0**
Artwork					
Artwork Subtotal	$0		$0		**$0**
Agency Project Administration					
Project Administration Subtotal	$204,668		$204,668		**$0**
Other Costs					
Other Costs Subtotal	$26,082		$26,082		**$0**
Project Cost Estimate					
Total Project	**$2,000,000**	**$0**	**$2,000,000**	**$0**	**$0**
	$2,000,000	**$0**	**$2,000,000**	**$0**	**$0**
	Percentage requested as a new appropriation		**100%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
This appropriation would support a predesign/feasibility study.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study	$1,500,000			
Other				
Insert Row Here				
Sub TOTAL	**$1,500,000**	**1.0000**	**$1,500,000**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$0			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0000**	**$0**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$35,000			
Geotechnical Investigation	$50,000			
Commissioning				
Site Survey	$100,000			
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$185,000**	**1.0000**	**$185,000**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$0			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0000**	**$0**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$84,250			
Other				
Insert Row Here				
Sub TOTAL	**$84,250**	**1.0000**	**$84,250**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$1,769,250**		**$1,769,250**	

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Cost Estimate Details

Construction Contracts					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work					
G10 - Site Preparation					
G20 - Site Improvements					
G30 - Site Mechanical Utilities					
G40 - Site Electrical Utilities					
G60 - Other Site Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0000**	**$0**	
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation					
Stormwater Retention/Detention					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0000**	**$0**	
3) Facility Construction					
A10 - Foundations					
A20 - Basement Construction					
B10 - Superstructure					
B20 - Exterior Closure					
B30 - Roofing					
C10 - Interior Construction					
C20 - Stairs					
C30 - Interior Finishes					
D10 - Conveying					
D20 - Plumbing Systems					
D30 - HVAC Systems					
D40 - Fire Protection Systems					
D50 - Electrical Systems					
F10 - Special Construction					
F20 - Selective Demolition					
General Conditions					
Other Direct Cost					
Insert Row Here					
Sub TOTAL	**$0**		**1.0000**	**$0**	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	**$0**			**$0**	
	NA			*NA per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$0			
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0000**	**$0**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0000**	**$0**	
9) Sales Tax				
Sub TOTAL	**$0**		**$0**	
CONSTRUCTION CONTRACTS TOTAL	**$0**		**$0**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0000**	**$0**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0000**	**$0**	
3) Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$10,000				0.5% of total project cost for new and renewal construction
Other	-$10,000				Art requirement does not apply to predesigns
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$204,668				
Additional Services					
Other					
Insert Row Here					
Subtotal of Other	*$0*				
PROJECT MANAGEMENT TOTAL	**$204,668**		**1.0000**	**$204,668**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation	$25,000				
Advertising	$1,000				
Rounding Entry	$82				
OTHER COSTS TOTAL	**$26,082**		**1.0000**	**$26,082**	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington	
Project Name	UWMC - Montlake Campus HVAC Systems Renewal	
OFM Project Number	40000145	

Contact Information		
Name	John Wetzel	
Phone Number	206-616-5924	
Email	wetzej@uw.edu	

Statistics			
Gross Square Feet	N/A	MACC per Gross Square Foot	
Usable Square Feet	N/A	Escalated MACC per Gross Square Foot	
Alt Gross Unit of Measure	N/A		
Space Efficiency		A/E Fee Class	A
Construction Type	Heating and power plant	A/E Fee Percentage	13.07%
Remodel	Yes	Projected Life of Asset (Years)	
Additional Project Details			
Procurement Approach	DBB	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.25%	Location Used for Tax Rate	Seattle
Contingency Rate	10%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start		Predesign End	
Design Start	July-24	Design End	August-24
Construction Start	September-24	Construction End	June-25
Construction Duration	10 Months		

Green cells must be filled in by user

Project Cost Summary

Total Project	$7,648,525	Total Project Escalated	$8,000,000
		Rounded Escalated Total	$8,000,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$8,000,000**
Next Biennium	**$0**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
Design Phase Services	$493,030		
Extra Services	$150,000		
Other Services	$271,506		
Design Services Contingency	$91,454		
Consultant Services Subtotal	**$1,005,991**	**Consultant Services Subtotal Escalated**	**$1,042,045**

Construction			
Maximum Allowable Construction Cost (MACC)	$4,970,000	Maximum Allowable Construction Cost (MACC) Escalated	$5,206,572
DBB Risk Contingencies	$0		
DBB Management	$0		
Owner Construction Contingency	$497,000		$520,658
Non-Taxable Items	$0		$0
Sales Tax	$560,368	Sales Tax Escalated	$587,041
Construction Subtotal	**$6,027,368**	**Construction Subtotal Escalated**	**$6,314,271**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$461,479		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$99,400		
Project Administration Subtotal	**$560,879**	**Project Administration Subtotal Escalated**	**$587,577**

Other Costs			
Other Costs Subtotal	**$54,288**	**Other Costs Subtotal Escalated**	**$56,107**

Project Cost Estimate			
Total Project	**$7,648,525**	Total Project Escalated	**$8,000,000**
		Rounded Escalated Total	**$8,000,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0		**$0**
Consultant Services					
Consultant Services Subtotal	$1,042,045		$1,042,045		**$0**
Construction					
Construction Subtotal	$6,314,271		$6,314,271		**$0**
Equipment					
Equipment Subtotal	$0		$0		**$0**
Artwork					
Artwork Subtotal	$0		$0		**$0**
Agency Project Administration					
Project Administration Subtotal	$587,577		$587,577		**$0**
Other Costs					
Other Costs Subtotal	$56,107		$56,107		**$0**
Project Cost Estimate					
Total Project	**$8,000,000**	**$0**	**$8,000,000**	**$0**	**$0**
	$8,000,000	**$0**	**$8,000,000**	**$0**	**$0**
	Percentage requested as a new appropriation		**100%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Design and construction.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0278**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$493,030			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$493,030**	**1.0292**	**$507,427**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning	$75,000			
Site Survey				
Testing	$25,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Hospital HVAC Consultant	$50,000			
Insert Row Here				
Sub TOTAL	**$150,000**	**1.0292**	**$154,380**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$221,506			31% of A/E Basic Services
HVAC Balancing	$50,000			
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$271,506**	**1.0476**	**$284,431**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$91,454			
Other				
Insert Row Here				
Sub TOTAL	**$91,454**	**1.0476**	**$95,807**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$1,005,991**		**$1,042,045**	

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Cost Estimate Details

Construction Contracts					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work					
G10 - Site Preparation					
G20 - Site Improvements					
G30 - Site Mechanical Utilities					
G40 - Site Electrical Utilities					
G60 - Other Site Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0335**	**$0**	
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation					
Stormwater Retention/Detention					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0335**	**$0**	
3) Facility Construction					
A10 - Foundations					
A20 - Basement Construction					
B10 - Superstructure					
B20 - Exterior Closure					
B30 - Roofing					
C10 - Interior Construction					
C20 - Stairs					
C30 - Interior Finishes					
D10 - Conveying					
D20 - Plumbing Systems					
D30 - HVAC Systems	$4,970,000				
D40 - Fire Protection Systems					
D50 - Electrical Systems					
F10 - Special Construction					
F20 - Selective Demolition					
General Conditions					
Other Direct Cost					
Insert Row Here					
Sub TOTAL	**$4,970,000**		**1.0476**	**$5,206,572**	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	**$4,970,000**			**$5,206,572**	
	NA			*NA per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$497,000			
Other				
Insert Row Here				
Sub TOTAL	**$497,000**	**1.0476**	**$520,658**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0476**	**$0**	
9) Sales Tax				
Sub TOTAL	**$560,368**		**$587,041**	
CONSTRUCTION CONTRACTS TOTAL	**$6,027,368**		**$6,314,271**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0476**	**$0**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0476**	**$0**	
3) Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$40,000				0.5% of total project cost for new and renewal construction
Other	-$40,000				Art requirement does not apply
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$461,479				
Additional Services					
Construction Management	$99,400				2% of Construction Costs
Insert Row Here					
Subtotal of Other	*$99,400*				
PROJECT MANAGEMENT TOTAL	**$560,879**		**1.0476**	**$587,577**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Advertising	$1,000				
In House Shop Support	$50,000				
Permits	$3,000				
Rounding Factor	$288				
OTHER COSTS TOTAL	**$54,288**		**1.0335**	**$56,107**	

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TAB C
PROGRAMMATIC PROJECTS

New Requests	
40000146	Chemical Sciences & Bagley Hall

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PROGRAM PROJECTS
REQUEST SUMMARIES

Chemical Sciences & Bagley Hall - $5M

The University of Washington requests $5 million from the State 057 Building Construction Account for initial design work associated with the Chemical Sciences & Bagley Hall project. Chemistry is a core component of the undergraduate and graduate educational experience at the UW. A new Chemical Sciences Building (CSB) will enable the UW to attract and retain world-class faculty and graduate students and to develop new interdisciplinary hands-on undergraduate educational opportunities to train the next generation of chemical scientists in the state. In addition to the new building, the University will address significant deferred maintenance and increase undergraduate capacity through the demolition of the Chemistry Library and renovations of existing Chemistry spaces in Bagley Hall, which is ranked #2 on the list of facilities with deferred renewal and life safety needs. Total project cost is estimated at $290 million with $160 million coming from local sources. Initial planning efforts are underway, with final construction sequencing to be determined. Compared to our previous submission to the state, the CSB project has been reduced in scope to a total project cost of $190 million (vs. $240 million) and the state funding request has been reduced from $200 million to $130 million ($5 million in FY24 for design and $125 million in the 25-27 biennium for construction).

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OFM

360 - University of Washington
Capital Project Request

2023-25 Biennium

*

Version: 11 FY24 Supplemental Budget FINAL

Report Number: CBS002
Date Run: 9/13/2023 10:35AM

Project Number: 40000146
Project Title: Chemical Sciences & Bagley Hall
Project Class: Program

Description

Starting Fiscal Year: 2024
Agency Priority: 1

Project Summary

The University of Washington requests $5 million from the State 057 Building Construction Account for initial design work associated with the Chemical Sciences & Bagley Hall project. Chemistry is a core component of the undergraduate and graduate educational experience at the UW. A new Chemical Sciences Building (CSB) will enable the UW to attract and retain world-class faculty and graduate students and to develop new interdisciplinary hands-on undergraduate educational opportunities to train the next generation of chemical scientists in the state. In addition to the new building, the University will address significant deferred maintenance and increase undergraduate capacity through the demolition of the Chemistry Library and renovations of existing Chemistry spaces in Bagley Hall, which is ranked #2 on the list of facilities with deferred renewal and life safety needs. Total project cost is estimated at $290 million with $160 million coming from local sources. Initial planning efforts are underway, with final construction sequencing to be determined. Compared to our previous submission to the state, the CSB project has been reduced in scope to a total project cost of $190 million (vs. $240 million) and the state funding request has been reduced from $200 million to $130 million ($5 million in FY24 for design and $125 million in the 25-27 biennium for construction).

Project Description

1. What is the problem/opportunity? Identify: priority, underserved people/communities, operating budget savings, public safety improvements & clarifying details. Preservation projects: include information about the current condition of the facility/system.

Chemistry research is at a critical point due to the antiquated facilities in which the program is housed, which no longer meet the requirements of modern science and significantly constrain the type of science allowed. Issues such as temperature and humidity control (instability), major equipment system failure, and the lack of dedicated chemical storage and safe transport pathways create hazardous conditions for faculty and students. Additionally, minimal student collaboration areas, small lab configurations, and decentralized locations where research is conducted limits opportunities for the interdepartmental collaboration that drives creativity and innovation.

The curricular impact of not addressing these concerns goes well beyond Chemistry majors. Chemistry courses are required for students in many STEM and health sciences fields. Annually, Chemistry teaches more than 68,000 Student Credit Hours (SCH). All engineering students admitted directly to UW require at least one chemistry course for placement into an engineering major. All students applying to the UWSchool of Medicine (i.e., to become an MD) require two years of lab-based Chemistry/Biochemistry. Other health sciences programs typically require at least one year of Chemistry. The core introductory chemistry sequence alone (CHEM142/152/162) serves as a prerequisite for 57 other UW Seattle STEM courses and enrolls approximately 5,600 students annually, generating about 28,000 SCH) in addition to courses at UW Bothell and UW Tacoma.

The construction of the Chemical Sciences Building (CSB) will enable a new mode of science where chemical research can transform into real-world applications in real-time. The proposed location of the CSB adjacent to the Chemistry Building, Bagley Hall, and Molecular and Nano Engineering Sciences facilities will create a chemical science cluster of excellence and interdisciplinary research.

As currently envisioned, the Chemical Sciences Building will be a research and advanced learning facility housing all the Chemistry research labs currently located in Bagley Hall and the Chemistry Library. The project is currently estimated to be a ~112,000 GSF highly specialized research and instructional building with an anticipated project cost of $190 million. The proposed location is identified as site C17 in the UW 2019 Seattle Campus Master Plan. The project will include the demolition of the Chemistry Library and enable the University to vacate portions of Bagley Hall, enabling subsequent renovations in that facility while ensuring the continuity of program operations.

The Chemistry Library, a 39,363 GSF facility built in 1957, is overwhelmed with program constraints and occupies a development site that can accommodate over double the current program capacity. By replacing this facility with the CSB, it will remove over $20 million of deferred maintenance and projected renewal needs, equating to almost 50% of the current replacement value of the facility.

As mentioned earlier, the combined CSB-Bagley project will also enable us to move forward with long-needed renovations in Bagley Hall. A total of $100 million will be deployed from local debt service commitments, which will replace similar debt commitments that are reaching

Project Number: 40000146
Project Title: Chemical Sciences & Bagley Hall
Project Class: Program

Description

the end of their amortization schedules. Bagley Hall, a 223,700 GSF facility built in 1937, is overwhelmed with HVAC system deficiencies, electrical upgrade needs, and program constraints, and the planned investment is a fraction of the total identified need in the building. By relocating critical chemistry research out of antiquated space in Bagley Hall to the CSB, it enables a significant portion of Bagley to be repurposed for other uses such as much-needed classrooms, class labs, and office space. This, in turn, will reduce the challenging research-related HVAC and electrical demands and will contribute to a reduction in annual corrective maintenance and utility expenses associated with aging equipment and assets. In summary, we are redeploying debt service capacity to improve Bagley and tend to infrastructure while we focus simultaneously on meeting the research and instructional needs of one of our largest STEM disciplines.

2. What will the request produce or construct (predesign/design of a building, additional space, etc.)? When will the project start/end? Identify if the project can be phased, and if so, which phase is included in the request. Provide detailed cost backup.
This request will enable the University to finalize a predesign that is currently underway (funded by the College of Arts & Sciences) and begin the initial design work associated with the proposed facility. The current schedule is shown below:

- *Predesign – Fall 2022 thru April 2024*
- *Design – July 2024 thru December 2025*
- *Construction – July 2025 thru June 2027*
- *Occupancy – Autumn Quarter 2027*

Detailed C-100 Cost Templates for CSB and Bagley Hall are included in the decision package.

3. How would the request address the problem or opportunity identified in question 1? What would be the result of not taking action?
The purpose of the new Chemical Sciences Building is to support the broad overlap of common areas of excellence in research and pedagogy in the chemical sciences, enabling researchers and students to capitalize on these synergies. Faculty and research labs are currently housed in several physically separated, aging, and high-risk facilities (including Bagley Hall and the Chemistry Library Building), which are no longer appropriate for modern chemical research and instruction. The current research infrastructure presents serious roadblocks to development of new interdisciplinary courses and prevents faculty, student, and industry interactions necessary for developing the next generation workforce in the chemical sciences in the state and provide available and appropriate space needed to build on their areas of common interests and develop bold new research and education initiatives.

Failure to address this ever-growing list of deficiencies will result in loss of grant revenue, loss of faculty (inc. graduate students), and have adverse effects on undergraduate enrollment across the institution in STEM and health sciences fields of study, as well as students applying to the UW School of Medicine. Since significant portions of Washington state's workforce depend on graduates who possess a background in chemistry, failure to address these deficiencies will have a negative impact on the state's economy across multiple industries including aerospace, computer science, engineering, and medicine to name a few.

Our inability to cohesively co-develop and modernize new interdisciplinary course offerings because of existing facility limitations has also resulted in important missed opportunities for funding and discovery. For example, we currently lack modern temperature-controlled instructional laboratory spaces to house instrumentation for quantum technologies. Shared research and instructional spaces will significantly enhance our ability to build on existing research synergies and to provide cutting-edge education and training experiences for our students.

4. What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.
Numerous alternatives have been explored during the initial formation and current predesign process. This has led to the development of a Chemical Sciences Modernization "program" that includes two distinct (yet complimentary) phases. The first is the construction of the new Chemical Sciences Building on the location of the existing Chemistry Library. The second is the partial renovation of Bagley Hall.

The renovation of Bagley Hall has been a goal of the University for several decades dating back to the University's 'Restore the Core Program' in the early 2000's. However, to address the issues identified in Bagley, chemistry lab surge space or permanent space is required to accommodate both teaching and research while the renovations take place. Ultimately, the preferred option of relocating research labs to a new facility will provide the opportunity to backfill the space vacated in Bagley Hall with organic chemistry instructional labs and related programs housed in other compromised facilities across campus, alleviating the existing bottleneck in organic chemistry

Description

and enabling expanded access for undergraduate students. The University is prioritizing local funding to address the deferred renewal needs and strategic renovation of Bagley Hall to demonstrate our commitment to addressing our deferred maintenance backlog in support of critical academic programs.

The predesign is well underway but is yet to be completed. Completion is anticipated for early 2024, with design work hopefully beginning in mid-2024 if funding is provided.

5. Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

This request will not only positively impact students, faculty, and researchers in Seattle, but rather all three campuses and their surrounding communities. Chemistry is a core program and chemistry courses are prerequisites for students in STEM fields. Chemistry faculty collaborate closely with other researchers across the university and the Pacific Northwest and are awarded ~$25 million in externally funded grants and contracts annually ensuring that our students are at the forefront of chemical discovery and skill development. The new facility will enable the college to continue to attract and retain world-class faculty and graduate students that in return, will increase the offering of quality educational opportunities for undergraduate students in the state. Some of the more specific benefits of the request are summarized in the following narratives.

- ***Improved Faculty, Student, and Industry Interaction***

The proposed Chemical Sciences Building will provide the necessary environment to grow faculty, student, and industry interactions. For example, our department is a national leader in areas of data science intersecting with chemical, materials, energy research, and bioanalytical chemistry. These skills are now identified as essential elements for the future workforce in chemical and materials centered industries that are critical to Washington State's economy, including aerospace, microelectronics, healthcare, and quantum information technology. Yet, our current facilities are ill-equipped to enable research, instruction, and training in these rapidly growing fields. The CSB will be a catalyst for new economic activity for Washington state, for training the future workforce with the skills the industry expects, and for incubating and translating new technologies from the laboratory to the marketplace. The new CSB building will be crucial in meeting student demand for hands-on independent research projects and the development of modern interdisciplinary courses for training the next generation of chemical scientists in the state.

- ***Collaborative Teaching Opportunities***

The Chemistry department is involved in exciting collaborative teaching outcomes. Chemistry faculty successfully led a five-year, $3 million National Science Foundation (NSF) grant to develop a sustainable and cohesive graduate curriculum at the nexus of data science and chemical sciences and engineering. The recently funded NSF traineeship program, Accelerating Quantum Enabled Technologies, is another example where chemistry faculty members are working closely with physicists and engineers to establish a unique curriculum to train the next generation of students about materials with the goal of enabling quantum technologies, harnessing quantum in device engineering, and developing algorithms inspired by or exploiting quantum phenomena.

- ***Research Advancement***

The Chemical Sciences Building will allow us to build on existing areas of research excellence. The discovery and application of advanced materials for clean energy applications are one of the most prominent examples. The UW Molecular Engineering and Sciences Institute, the joint UW/PNNL materials institute (NW IMPACT), a newly funded DOE Energy Frontier Research Center, the NSF Materials Research Science and Engineering Center, and the Washington Clean Energy Institute are all examples of impactful collaborative research which centers around the Chemical Sciences. These efforts have also naturally supported growing initiatives in the materials science aspects of UWQuantumX and new quantum information technologies.

Specific examples of UW chemistry research include development of assays to detect treatable newborn screening for genetic diseases, using polymer chemistry to 3D print sustainable materials for construction, developing at-home blood sampling technologies to understand the human body's response to wildfire smoke, developing photo-responsive magnetic quantum materials, development of data analysis software for biofuels, forensics, food safety and industrial feed stocks, and discovering how the first cells formed four billion years ago on Earth.

Established and emerging areas of collaborative Chemical Science research at UW include synthetic biology, basic and applied polymer science and engineering, applications of machine learning and AI across a spectrum of computational molecular science and engineering activities, and chemical catalysis and reaction engineering. A more thorough integration of these joint research activities in one building

Description

would enhance the ability of chemistry and other units across campus to attract and retain world-class faculty, carry out impactful long-term research projects, attract more interdisciplinary research funding, increase the number of joint appointees across units and colleges and grow our capacity to collaborate with PNNL in a more integrative fashion.

6. Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share OF project cost allowable and the supporting citation or documentation.
The project will leverage$160 million of non-state funding (55% of the anticipated total project cost).The combination of state and local funding sources is outlined below:
Supplemental Capital Request 2024(Design) - $5,000,000
State Capital Request 25-27 (Construction)- $125,000,000
Central Equity/Debt - $100,000,000
Unit Equity (College of Arts &Sciences) - $40,000,000
Donor Funding - $20,000,000
Total Project Cost - $290,000,000

7. Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.
The University of Washington 2019 Campus Master Plan (CMP) is the primary regulatory vehicle for the University's future development, defining both the square footage to be constructed and the geographic location of such developments.

The proposed location for the Chemical Sciences Building is site C17 within Central Campus as defined by the CMP. The new facility will occupy this site, supporting the hub of learning activity and knowledge sharing that is core to the Central Campus.

The CMP creates a framework designed to enable the UW's continued evolution as a 21st century public higher education research and service institution. The CMP is founded on five guiding principles, the most significant relative to this project is Guiding Principle #2: Learning-Based Academic and Research Partnerships: Support and catalyze academic, teaching and research partnerships with allied industries; contribute to a highly livable innovation environment; and stimulate job growth and community and economic development.

8. Does this project include IT related costs, including hardware, software, cloud based services, contracts or staff? If yes, attach IT Addendum.
No, this project does not include any IT related costs.

9. If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23Operating Budget Instructions.
No, this project is not linked to the Puget Sound Action Agenda.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, Clean Buildings performance standards in RCW 19.27A.210, or other statewide goals to reduce carbon pollution and/or improve efficiency?
The new facility with be built with state of the art, integrated building controls that allow for "real-time" management of the facilities energy usage via data analytics which will help limit greenhouse gas emissions and ensure compliance with the Clean Buildings Performance Standard. Increasing our energy efficiency is one of five key components to the University's Clean Energy Strategy (our decarbonization plan).

This project will also allow the University to demolish an aging facility with numerous pieces of antiquated equipment and building systems that currently contribute to unnecessary energy use purely due to the inefficient nature of the old technology. In addition, continued reliance on this outdated equipment strains maintenance resources and puts the University at risk of service disruptions and equipment failures that jeopardize our ability to provide the level of energy service needed daily.

The University has been at the forefront of ongoing discussions with Commerce and other groups/authorities in helping develop and establish strategies to ensure compliance with the greenhouse gas emission limits and the Clean Building Performance Standard can

Project Number: 40000146
Project Title: Chemical Sciences & Bagley Hall
Project Class: Program

Description

indeed be a reality.

11. How does this project impact equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?
As the heart of the UW's academic experience, the College of Arts & Sciences embraces, embodies, and explores the world in all its diversity. UW Chemistry is an integral part of the college and the university, and their courses and research programs leverage fundamental chemical principles and the diverse expertise of our students, staff, and faculty, to shape a sustainable, resilient, and just future. Together they tackle some of the biggest challenges facing science and society: clean water and energy for all, eradicating disease and promoting global public health, advancing the next generation of efficient, sustainable, and accessible technologies, and educating to advance scientific literacy, among others. UW chemists know that their best work will happen when members of our community are affirmed, empowered, and committed to our shared CHEM ideals:

- ***COLLABORATION*** *that brings all people and ideas to the table*
- ***HONOR*** *and respect for the people and lands in and around our community*
- ***ENGAGEMENT*** *with tough questions and curiosity that drives discovery and change in science and society*
- ***MOTIVATION*** *to strive for excellence in education and research at the frontiers of chemical science*

In addition to the principles mentioned above, the University believes that new facilities (inc. renovated spaces) do a much better job of taking historically marginalized communities into account, as they are able to be more accessible and inclusive, take a wider array of learning styles and methods into account, and generally utilize new information, processes, and technology in a way that older facilities cannot adequately support.

12. Is there additional information you would like decision makers to know when evaluating this request?
In summary, the top highly research intensive (universities at the forefront of research and innovation) Chemistry departments in the world have tightly integrated research and teaching programs where new discoveries in basic chemical sciences at the molecular level translate into real-world solutions via engineering and materials science applications. The UW has a world-class department of Chemistry with vibrant research programs in basic and applied chemical sciences. Despite demonstrated excellence in research and pedagogy, the Chemistry Department at the University of Washington is unable to maximize its impact in training the next generation of scientists. The goals (and anticipated outcomes) of the project are well defined and outlined below.

- ***Student/Faculty Growth and Retention:*** *Increase degree production through recruitment of graduate students resulting in an expansion of class offerings.*
- ***Drive Interdisciplinary Undergraduate Research:*** *Enable the development of modern interdisciplinary courses and meeting demands for hands-on independent research projects.*
- ***Increase Grant Funding and Foster Modern Chemical Sciences Research:*** *Create a modern research environment built around interdisciplinary collaboration.*
- ***Synergy/Interdependence Between Research & Classroom:*** *Capitalize on synergy and interdependence between research and the classroom by creating an environment that drives innovation and research that feeds what is taught in the classroom.*
- ***Essential Workforce Development:*** *Empower chemical and materials industries in Washington State.*
- ***Industry Partnerships:*** *Grow and strengthen relationships with industry partners and subsequently create opportunities for more funding through collaboration opportunities.*
- ***Modernization/Optimization:*** *Optimize space by 15% through the implementation of efficiencies, modernization, and economies of scale.*

Location
City: Seattle **County:** King **Legislative District:** 043

Project Type
New Facilities/Additions (Major Projects)
Remodel/Renovate/Modernize (Major Projects)

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360 - University of Washington
Capital Project Request

2023-25 Biennium

*

Version: 11 FY24 Supplemental Budget FINAL

Report Number: CBS002
Date Run: 9/13/2023 10:35AM

Project Number: 40000146
Project Title: Chemical Sciences & Bagley Hall
Project Class: Program

Description

Growth Management impacts

Not applicable.

New Facility: Yes

How does this fit in master plan

The University of Washington 2019 Campus Master Plan (CMP) is the primary regulatory vehicle for the University's future development, defining both the square footage to be constructed and the geographic location of such developments. The proposed location for the Chemical Sciences Building is site C17 within Central Campus as defined by the CMP. The new facility will occupy this site, supporting the hub of learning activity and knowledge sharing that is core to the Central Campus. The CMP creates a framework designed to enable the UW's continued evolution as a 21st century public higher education research and service institution. The CMP is founded on five guiding principles, the most significant relative to this project is Guiding Principle #2: Learning-Based Academic and Research Partnerships: Support and catalyze academic, teaching and research partnerships with allied industries; contribute to a highly livable innovation environment; and stimulate job growth and community and economic development.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2023-25 Fiscal Period Reapprops	2023-25 Fiscal Period New Approps
057-1	State Bldg Constr-State	130,000,000				5,000,000
148-6	HE - Dedicated Locl-Non-Appropria	160,000,000				785,000
	Total	**290,000,000**	**0**	**0**	**0**	**5,785,000**

Acct Code	Account Title	Future Fiscal Periods 2025-27	2027-29	2029-31	2031-33
057-1	State Bldg Constr-State	125,000,000			
148-6	HE - Dedicated Locl-Non-Appropria	59,215,000	100,000,000		
	Total	**184,215,000**	**100,000,000**	**0**	**0**

Operating Impacts

No Operating Impact

Narrative

This funding request is for design only.

OFM

Capital Project Request

2023-25 Biennium

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Parameter	Entered As	Interpreted As
Biennium	2023-25	2023-25
Agency	360	360
Version	11-A	11-A
Project Classification	*	All Project Classifications
Capital Project Number	40000146	40000146
Sort Order	Project Class	Project Class
Include Page Numbers	N	No
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington
Project Name	Chemical Sciences & Bagley Hall (Chemical Sciences Building)
OFM Project Number	40000146

Contact Information	
Name	John Wetzel
Phone Number	(206) 616-5924
Email	wetzej@uw.edu

Statistics			
Gross Square Feet	112,000	MACC per Gross Square Foot	$1,045
Usable Square Feet	67,200	Escalated MACC per Gross Square Foot	$1,163
Alt Gross Unit of Measure			
Space Efficiency	60.0%	A/E Fee Class	A
Construction Type	Laboratories (Research)	A/E Fee Percentage	5.99%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Procurement Approach	DB-Progressive	Art Requirement Applies	Yes
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.25%	Location Used for Tax Rate	Seattle, WA
Contingency Rate	5%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start	January-23	Predesign End	December-24
Design Start	January-25	Design End	June-26
Construction Start	January-26	Construction End	December-27
Construction Duration	23 Months		

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Project Cost Summary

Total Project	$171,474,682	Total Project Escalated	$190,000,000
		Rounded Escalated Total	$190,000,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$5,785,000**
Next Biennium	**$184,215,000**
Out Years	**$0**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$837,863		
Design Phase Services	$8,730,464		
Extra Services	$4,354,000		
Other Services	$2,282,527		
Design Services Contingency	$2,414,479		
Consultant Services Subtotal	**$18,619,334**	**Consultant Services Subtotal Escalated**	**$20,099,637**

Construction			
Maximum Allowable Construction Cost (MACC)	$117,068,000	Maximum Allowable Construction Cost (MACC) Escalated	$130,255,523
DB-Progressive Risk Contingencies	$0		
DB-Progressive Management	$0		
Owner Construction Contingency	$5,853,400		$6,521,273
Non-Taxable Items	$0		$0
Sales Tax	$12,599,444	Sales Tax Escalated	$14,019,622
Construction Subtotal	**$135,520,844**	**Construction Subtotal Escalated**	**$150,796,418**

Equipment			
Equipment	$7,056,000		
Sales Tax	$723,240		
Non-Taxable Items	$0		
Equipment Subtotal	**$7,779,240**	**Equipment Subtotal Escalated**	**$8,666,852**

Artwork			
Artwork Subtotal	**$650,000**	**Artwork Subtotal Escalated**	**$650,000**

Agency Project Administration			
Agency Project Administration Subtotal	$4,348,768		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$653,500		
Project Administration Subtotal	**$5,002,268**	**Project Administration Subtotal Escalated**	**$5,573,027**

Other Costs			
Other Costs Subtotal	**$3,902,997**	**Other Costs Subtotal Escalated**	**$4,214,066**

Project Cost Estimate			
Total Project	**$171,474,682**	Total Project Escalated	**$190,000,000**
		Rounded Escalated Total	**$190,000,000**

Funding Summary

Anticipated Funding Sources:	
Supplemental Capital Request 2024 (Design)	$5,000,000
State Capital Request 25-27 (Construction)	$125,000,000
Unit Equity (College of Arts & Sciences)	$40,000,000
Donor Funding	$20,000,000
Total Chemical Sciences Project Cost	$190,000,000

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0		$0	$0	**$0**
Consultant Services					
Consultant Services Subtotal	$20,099,637		$5,750,000	$14,349,637	**$0**
Construction					
Construction Subtotal	$150,796,418		$0	$150,796,418	**$0**
Equipment					
Equipment Subtotal	$8,666,852		$0	$8,666,852	**$0**
Artwork					
Artwork Subtotal	$650,000		$0	$650,000	**$0**
Agency Project Administration					
Project Administration Subtotal	$5,573,027		$25,000	$5,548,027	**$0**
Other Costs					
Other Costs Subtotal	$4,214,066		$10,000	$4,204,066	**$0**
Project Cost Estimate					
Total Project	**$190,000,000**	**$0**	**$5,785,000**	**$184,215,000**	**$0**
	$190,000,000	**$0**	**$5,785,000**	**$184,215,000**	**$0**
	Percentage requested as a new appropriation		**3%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Initial design work.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
Design and Construction.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis	$827,814			
Environmental Analysis	$10,049			
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$837,863**	**1.0449**	**$875,483**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$5,080,464			69% of A/E Basic Services
Structure	$500,000			
Electircal	$1,500,000			
Mechanical	$1,650,000			
Sub TOTAL	**$8,730,464**	**1.0693**	**$9,335,486**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$1,000,000			
Geotechnical Investigation	$142,000			
Commissioning	$480,000			
Site Survey	$82,000			
Testing	$500,000			
LEED Services	$50,000			
Voice/Data Consultant				
Value Engineering				
Constructability Review	$600,000			
Environmental Mitigation (EIS)				
Landscape Consultant	$1,000,000			
Other	$500,000			
Insert Row Here				
Sub TOTAL	**$4,354,000**	**1.0693**	**$4,655,733**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$2,282,527			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$2,282,527**	**1.1141**	**$2,542,964**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$810,243			
WSST on Design	$1,604,236			Based on Escalated Fees
Insert Row Here				
Sub TOTAL	**$2,414,479**	**1.1141**	**$2,689,971**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$18,619,334**		**$20,099,637**	

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Cost Estimate Details

Construction Contracts					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work					
G10 - Site Preparation	$1,120,000				
G20 - Site Improvements	$1,350,000				
G30 - Site Mechanical Utilities	$785,000				
G40 - Site Electrical Utilities	$785,000				
G60 - Other Site Construction	$900,000				
Other					
Insert Row Here					
Sub TOTAL	**$4,940,000**		**1.0797**	**$5,333,718**	
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation					
Stormwater Retention/Detention					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0797**	**$0**	
3) Facility Construction					
A10 - Foundations	$2,240,000				
A20 - Basement Construction	$2,185,000				
B10 - Superstructure	$12,540,000				
B20 - Exterior Closure	$7,840,000				
B30 - Roofing	$1,120,000				
C10 - Interior Construction	$5,600,000				
C20 - Stairs	$1,120,000				
C30 - Interior Finishes	$4,480,000				
D10 - Conveying	$700,000				
D20 - Plumbing Systems	$7,840,000				
D30 - HVAC Systems	$17,920,000				
D40 - Fire Protection Systems	$1,008,000				
D50 - Electrical Systems	$14,000,000				
F10 - Special Construction	$400,000				
F20 - Selective Demolition	$900,000				
General Conditions	$8,500,000				
Other Direct Cost	$1,835,000				
DB Project Contingency	$10,625,000				
DB Fee	$6,310,000				
Additional Escalation	$4,965,000				
Sub TOTAL	**$112,128,000**		**1.1141**	**$124,921,805**	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	**$117,068,000**			**$130,255,523**	
	$1,045			*$1,163 per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$5,853,400			
Insert Row Here				
Sub TOTAL	**$5,853,400**	**1.1141**	**$6,521,273**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1141**	**$0**	
9) Sales Tax				
Sub TOTAL	**$12,599,444**		**$14,019,622**	
CONSTRUCTION CONTRACTS TOTAL	**$135,520,844**		**$150,796,418**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment	$6,160,000				
E20 - Furnishings	$896,000				
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$7,056,000**		**1.1141**	**$7,861,090**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1141**	**$0**	
3) Sales Tax					
Sub TOTAL	**$723,240**			**$805,762**	
EQUIPMENT TOTAL	**$7,779,240**			**$8,666,852**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$946,750				0.5% of total project cost for new and renewal construction
Other	-$296,750				$130M State appropriation X 0.5% = $650K for art
Insert Row Here					
ARTWORK TOTAL	**$650,000**		**NA**	**$650,000**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$4,348,768				
Additional Services					
Preactivation (Predesign)	$3,500				
Construction Manager	$650,000				
Subtotal of Other	*$653,500*				
PROJECT MANAGEMENT TOTAL	**$5,002,268**		**1.1141**	**$5,573,027**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Document Reproduction	$3,250				
Advertising	$1,500				
Permits	$1,318,000				
Security Traffic Control	$600,000				
IT Services	$150,000				
Temporary Facilities	$500,000				
Builders Risk	$335,000				
Plant Services + EH&S	$795,000				
Utility Connection Fees	$200,000				
Rounding Entry	$247				
OTHER COSTS TOTAL	**$3,902,997**		**1.0797**	**$4,214,066**	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated May 2023

Agency	University of Washington
Project Name	Chemical Sciences & Bagley Hall (Bagley Renovation)
OFM Project Number	40000146

Contact Information	
Name	John Wetzel
Phone Number	(206) 616-5924
Email	wetzej@uw.edu

Statistics			
Gross Square Feet	65,000	MACC per Gross Square Foot	$868
Usable Square Feet	39,000	Escalated MACC per Gross Square Foot	$999
Alt Gross Unit of Measure			
Space Efficiency	60.0%	A/E Fee Class	B
Construction Type	Other Sch. B Projects	A/E Fee Percentage	8.93%
Remodel	Yes	Projected Life of Asset (Years)	
Additional Project Details			
Procurement Approach	DB-Progressive	Art Requirement Applies	No
Inflation Rate	3.33%	Higher Ed Institution	Yes
Sales Tax Rate %	10.25%	Location Used for Tax Rate	Seattle, WA
Contingency Rate	10%		
Base Month (Estimate Date)	August-23	OFM UFI# (from FPMT, if available)	A06654
Project Administered By	Agency		

Schedule			
Predesign Start	January-23	Predesign End	December-25
Design Start	January-26	Design End	June-27
Construction Start	January-27	Construction End	December-28
Construction Duration	23 Months		

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Project Cost Summary

Total Project	$87,143,607	Total Project Escalated	$100,000,000
		Rounded Escalated Total	$100,000,000

Amount funded in Prior Biennia	**$0**
Amount in current Biennium	**$0**
Next Biennium	**$0**
Out Years	**$100,000,000**

Please enter biennial spending breakdown on Biennium Summary tab

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
Design Phase Services	$5,422,888		
Extra Services	$660,000		
Other Services	$1,737,529		
Design Services Contingency	$1,447,260		
Consultant Services Subtotal	**$9,267,677**	**Consultant Services Subtotal Escalated**	**$10,387,314**

Construction			
Maximum Allowable Construction Cost (MACC)	$56,402,500	Maximum Allowable Construction Cost (MACC) Escalated	$64,930,558
DB-Progressive Risk Contingencies	$0		
DB-Progressive Management	$0		
Owner Construction Contingency	$5,640,250		$6,493,056
Non-Taxable Items	$0		$0
Sales Tax	$6,359,382	Sales Tax Escalated	$7,320,920
Construction Subtotal	**$68,402,132**	**Construction Subtotal Escalated**	**$78,744,534**

Equipment			
Equipment	$5,300,000		
Sales Tax	$543,250		
Non-Taxable Items	$0		
Equipment Subtotal	**$5,843,250**	**Equipment Subtotal Escalated**	**$6,726,750**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$2,120,741		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$440,000		
Project Administration Subtotal	**$2,560,741**	**Project Administration Subtotal Escalated**	**$2,947,925**

Other Costs			
Other Costs Subtotal	**$1,069,807**	**Other Costs Subtotal Escalated**	**$1,193,477**

Project Cost Estimate			
Total Project	**$87,143,607**	Total Project Escalated	**$100,000,000**
		Rounded Escalated Total	**$100,000,000**

Funding Summary

FUNDING FOR THE BAGLEY HALL RENOVATION TO BE PROVIDED VIA LOCAL FUNDS

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0				**$0**
Consultant Services					
Consultant Services Subtotal	$10,387,314				**$10,387,314**
Construction					
Construction Subtotal	$78,744,534				**$78,744,534**
Equipment					
Equipment Subtotal	$6,726,750				**$6,726,750**
Artwork					
Artwork Subtotal	$0				**$0**
Agency Project Administration					
Project Administration Subtotal	$2,947,925				**$2,947,925**
Other Costs					
Other Costs Subtotal	$1,193,477				**$1,193,477**
Project Cost Estimate					
Total Project	**$100,000,000**	**$0**	**$0**	**$0**	**$100,000,000**
	$100,000,000	**$0**	**$0**	**$0**	**$100,000,000**
	Percentage requested as a new appropriation		**0%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Design and construction to be completed with local funds.
Insert Row Here

What has been completed or is underway with a previous appropriation?
No previous appropriations have been provided for this project.
Insert Row Here

What is planned with a future appropriation?
No future appropriations are anticipated for this project.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0797**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$3,822,888			69% of A/E Basic Services
Structural	$250,000			
Mechanical	$750,000			
Electrical	$500,000			
Other	$100,000			
Insert Row Here				
Sub TOTAL	**$5,422,888**	**1.1049**	**$5,991,750**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning	$300,000			
Site Survey				
Testing	$75,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review	$285,000			
Environmental Mitigation (EIS)				
Landscape Consultant				
Insert Row Here				
Sub TOTAL	**$660,000**	**1.1049**	**$729,234**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$1,717,529			31% of A/E Basic Services
HVAC Balancing	$20,000			
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$1,737,529**	**1.1512**	**$2,000,244**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$782,042			
Sales Tax on Design	$665,218			
Insert Row Here				
Sub TOTAL	**$1,447,260**	**1.1512**	**$1,666,086**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$9,267,677**		**$10,387,314**	

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Cost Estimate Details

Construction Contracts					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work					
G10 - Site Preparation					
G20 - Site Improvements					
G30 - Site Mechanical Utilities					
G40 - Site Electrical Utilities					
G60 - Other Site Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1156**	**$0**	
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation					
Stormwater Retention/Detention					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1156**	**$0**	
3) Facility Construction					
A10 - Foundations					
A20 - Basement Construction					
B10 - Superstructure					
B20 - Exterior Closure					
B30 - Roofing	$2,435,000				
C10 - Interior Construction	$3,250,000				
C20 - Stairs					
C30 - Interior Finishes	$3,250,000				
D10 - Conveying					
D20 - Plumbing Systems	$975,000				
D30 - HVAC Systems	$25,000,000				
D40 - Fire Protection Systems					
D50 - Electrical Systems	$7,250,000				
F10 - Special Construction	$1,625,000				
F20 - Selective Demolition	$812,500				
General Conditions	$4,225,000				
Other Direct Cost	$1,080,000				
DB Project Contingency	$3,800,000				
DB Fee	$2,700,000				
Insert Row Here					
Sub TOTAL	**$56,402,500**		**1.1512**	**$64,930,558**	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	**$56,402,500**			**$64,930,558**	
	$868			*$999 per GSF*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$5,640,250			
Insert Row Here				
Sub TOTAL	**$5,640,250**	**1.1512**	**$6,493,056**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1512**	**$0**	
9) Sales Tax				
Sub TOTAL	**$6,359,382**		**$7,320,920**	
CONSTRUCTION CONTRACTS TOTAL	**$68,402,132**		**$78,744,534**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment	$4,500,000				
E20 - Furnishings	$800,000				
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$5,300,000**		**1.1512**	**$6,101,360**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1512**	**$0**	
3) Sales Tax					
Sub TOTAL	**$543,250**			**$625,390**	
EQUIPMENT TOTAL	**$5,843,250**			**$6,726,750**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$500,000				0.5% of total project cost for new and renewal construction
Other	-$500,000				No State appropriations
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$2,120,741				
Additional Services					
Construction Management	$440,000				
Insert Row Here					
Subtotal of Other	*$440,000*				
PROJECT MANAGEMENT TOTAL	**$2,560,741**		**1.1512**	**$2,947,925**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Advertising	$2,500				
EH&S	$35,000				
IT Services	$80,000				
Plant Services	$327,000				
Permit	$450,000				
Builders Risk	$175,000				
Rounding Entry	$307				
OTHER COSTS TOTAL	**$1,069,807**		**1.1156**	**$1,193,477**	

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TAB D
GRANT & LOAN PROGRAMS

NO REQUESTS IN THIS CATEGORY

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TAB E
COP FORMS

NO REQUESTS IN THIS CATEGORY

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