BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

Capital Planning & Budget Committee

Via WebEx Videoconference

Thursday, October 8, 2020
8:45 a.m. – 10:00 a.m.

A. Calling of the Roll

B. Declaration of Conflicts

C. Approval of the Minutes of the August 20, 2020 Meeting of the Capital Planning and Budget Committee

D. UW-Madison: Authority to Complete the Design and Construct the UW-Managed Biochemistry Cryo-Electron Microscopy Renovation, Phase I Project

E. UW-Madison: Authority to Complete the Design and Construct the UW-Managed Chamberlin Hall 6th Floor Weaver Instrumentation Lab Renovation Project

F. UW-Madison: Authority to Increase the Scope and Budget of the UW-Managed Weeks Hall 4th floor Dutton Laboratory Renovation Project

G. UW-Madison: Authority to Complete the Design and Construct the UW-Managed Wisconsin Institutes for Medical Research Dock and NIH Research Lab Renovation Project

H. UW System: Authority to Construct a 2019-21 Classroom Renovation/Instructional Technology Improvement Program Project

I. UW System: Authority to Construct All Agency Maintenance and Repair Projects

J. UW System: Authority to Construct Minor Facilities Renewal Projects

K. Report of the Senior Associate Vice President
    1. Status Update on the 2021-23 Capital Budget
    2. Other

Capital Planning and Budget Committee — Item D.

October 8, 2020

AUTHORITY TO CONSTRUCT THE BIOCHEMISTRY CRYO-ELECTRON MICROSCOPY RENOVATION, PHASE I PROJECT, UW-MADISON

REQUESTED ACTION

Adoption of Resolution D., authorizing the completion of design and construction of the Biochemistry Cryo-Electron Microscopy Renovation, Phase I project.

Resolution D. That, upon the recommendation of the Chancellor of UW-Madison and the President of the UW System, the UW System Board of Regents authorizes the completion of design and construction of the Biochemistry Cryo-Electron Microscopy Renovation, Phase I project for an estimated total project cost of $2,400,000.

SUMMARY

This is the first phase of a two-phase project that will renovate existing space within the Hector F. DeLuca Biochemistry Complex to support a National Institutes of Health (NIH) grant awarded to Principal Investigator (PI) Elizabeth Wright and the UW-Madison Biochemistry Department to create the Midwest Center for Cryo-Electron Tomography, an NIH-sponsored National Cryo-Electron Tomography Research Service Center Hub.

Phase I renovates approximately 1,883 ASF on the basement level within the DeLuca Biochemistry Building (0084) basement B1118 Suite that was formerly occupied by the Biological Magnetic Resonance Data Bank (BMRB) group. The project renovates the space to support two microscope rooms with wet and dry laboratory workspace that is similar in the configuration and scope of work as the recently completed Biochemistry Electron Microscope project for Professor Wright. This renovated space will be used to house research equipment, including workspace for staff and visiting investigators using the equipment and resources of the Center.

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

The Department of Biochemistry in the College of Agricultural and Life Sciences was founded in 1883 and has a long tradition of excellence in basic research that has produced many important practical advances such as methods that led to the large-scale preparation of penicillin, and the discovery of anti-coagulants such as warfarin. The desire to find molecular answers to fundamental problems in biology and chemistry is the driving force of this department, which studies cellular regulation, molecular genetics, protein structure, hormone action, virology, and developmental biology. Professor Elizabeth Wright, uses Cryo-Electron Microscopy (cryo-EM) and Cryo-Electron Tomography (cryo-ET) to investigate the structures of many types of cells, bacteria, and viruses and is developing methods for advancing these technologies that support creation of novel antimicrobials, therapeutics, and vaccines.

This new NIH-sponsored National Cryo-Electron Tomography Research Service Center Hub will house advanced instrumentation to provide cancer biologists, virologists, cell biologists, microbiologists, and other researchers access to the latest technology for high-resolution cryo-electron tomography imaging of macromolecular assemblies, viruses, cells, and tissues. This new hub will give access to the latest microscope, detector, and specimen preparation technologies, which is critical for acquiring the best quality data, and generating the highest resolution structures by this method.

The hub will provide access to advanced cryo-electron tomography instrumentation and services to the research community and other centers located within the NIH network including: collection of data; sample preparation, specimen processing, and shipping coordination; and cross-training to user laboratories in specimen preparation methods, instrumentation, and cryo-ET data collection. Additionally, the hub will provide administrative and logistical support for the Network Coordinating Group and its activities, including scheduling and organizing meetings, the user application and review processes, the allocation of services between centers, and record-keeping.

Budget/Schedule

Construction	$1,886,000
Design	236,000
Contingency	190,000
Equipment	15,000
Other Fees	73,000
TOTAL	$2,400,000

A/E Selection	Jun 2020
BOR Approval	Oct 2020
Bid Opening	Feb 2021
Start Construction	Apr 2021
Substantial Completion	Oct 2021
Final Completion	Apr 2022

Previous Action

- None.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-15, "Physical Development Principles"
- Regent Policy Document 19-16, "Building Program Planning and Approval"

Capital Planning and Budget Committee **Item E.**
October 8, 2020

AUTHORITY TO CONSTRUCT THE CHAMBERLIN HALL 6TH FLOOR WEAVER INSTRUMENTATION LABORATORY RENOVATION PROJECT, UW-MADISON

REQUESTED ACTION

Adoption of Resolution E., authorizing the completion of design and construction of the Chamberlin Hall 6th Floor Weaver Instrumentation Lab Renovation project at UW-Madison.

Resolution E. That, upon the recommendation of the Chancellor of UW-Madison and the President of the UW System, the UW System Board of Regents authorizes the completion of design and construction of the Chamberlin Hall 6th Floor Weaver Instrumentation Laboratory Renovation project for an estimated total cost of $1,700,000 Gift Funds.

SUMMARY

This project will renovate approximately 1,370 GSF on the 6th floor of Chamberlin Hall in order to create an instrumentation laboratory for Dr. Susanna Widicus Weaver, who is known for her research in the emerging field of pre-biotic astrochemistry.

The project includes demolition of underutilized research labs to make way for the creation of five research stations. Each station would include an optics table and associated equipment. Additionally, the renovated area will include a dedicated room for mechanical vacuum pumps. The new laboratory will be constructed with appropriate electrical service, cooling, ventilation, and soundproofing.

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

The Chemistry Department and the College of Letters and Sciences are striving to maintain an adequate number of chemistry faculty and staff to accommodate student demand for

chemistry courses. This demand is due to enrollment expansion on campus and rising student interest in STEM (Science, Technology, Engineering, Mathematics) majors that require foundational and advanced courses in Chemistry. In order to meet this need, the Chemistry Department conducted an extensive faculty search during the 2018-19 academic year, leading to the joint appointment of Professor Susanna Widicus Weaver, by both the Departments of Chemistry and Astronomy in a tenured faculty position. Prof. Widicus Weaver is known for her research which investigates the chemical mechanisms in space that lead to the development of biological systems.

The need to outfit a laboratory for this recent hire is exceptionally urgent. This project creates the unique laboratory environment and support facilities that are essential to her research program in this newly emerging field.

Budget/Schedule

Construction	$1,120,000
Design	$156,000
Contingency	$265,000
Equipment	$112,000
Other Fees	$47,000
TOTAL	$ 1,700,000

BOR Approval	Oct 2020
Bid Posting	Jan 2021
Bid Opening	Mar 2021
Commence Construction	Apr 2021
Substantial Completion	Sep 2021

Previous Action

- None.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-15, "Physical Development Principles"
- Regent Policy Document 19-16, "Building Program Planning and Approval"

Capital Planning and Budget Committee — Item F.

October 8, 2020

AUTHORITY TO INCREASE THE SCOPE AND BUDGET OF THE WEEKS HALL 4TH FLOOR DUTTON LABORATORY RENOVATION PROJECT, UW-MADISON

REQUESTED ACTION

Adoption of Resolution F., authorizing an increase to the scope and budget of the Weeks Hall 4th Floor Dutton Laboratory Renovation project.

Resolution F. That, upon the recommendation of the Chancellor of UW-Madison and the President of the UW System, the UW System Board of Regents authorizes an increase to the scope and budget of the Weeks Hall 4th Floor Dutton Laboratory Renovation project of 688 GSF and $265,330 Gift Funds for a new estimated total project cost of $2,190,000 Gift Funds.

SUMMARY

This project was originally approved as a 900 GSF remodel of the 4th floor in Weeks Hall in order to create a geoscience lab for Professor Andrea Dutton, an isotope geochemist who specializes in U-series radiometric dating. The previously approved scope included renovation to construct a new extremely unique metal-free clean lab, space for a mass spectrometer, a mechanical room, a vestibule/gowning room, and an adjacent weighing room and did not include space for additional support functions that would be relocated at a later date. A lab of this nature has not been built on campus in recent history. All construction components must be fabricated out of non-metal materials making this a highly unique and specialized type of construction, one with which local suppliers and contractors may not be familiar.

During schematic design, it became clear that two additional “dirty” lab spaces, one of which is the result of the displaced adjacent lab support functions, were essential for this project. In order to accommodate this need, an increase of 688 GSF of space and $265,330 of funding is required.

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

The College of Letters and Science, Department of Geoscience is among the world's leaders in research and education. The research programs are both broad and deep in traditional areas of sedimentary geology, hydrogeology, geophysics, mineralogy, petrology, geochemistry, structural geology, and surface processes. These areas of study have become more important than ever before in order for our nation to secure its energy and other natural resources, to understand threats to its water and environment, and to prepare for hazards posed by earthquakes, volcanism, floods, tsunamis, and global climate change. As such, the department plays a unique role on campus through strong connections to other programs including participation in the Nelson Institute for Environmental Studies and close collaboration with the College of Engineering to jointly train future geological engineers. During the past decade, the hiring of new faculty in geophysics, sedimentary geology, structural geology, geochemistry, and surface processes has led to many highly successful collaborations and synergies across disciplines; however, recent and imminent departures of faculty now threaten this success.

Professor Dutton joined the Department of Geoscience in the summer of 2019, with an appointment at the full professor level (tenure status and title pending committee approval this fall). She is an internationally recognized expert and has recently been awarded as a Fulbright Scholar and a MacArthur Fellow. Her area of expertise will add a new dimension of paleoclimate science, geochronology capabilities, and extensive experience in outreach and communication of climate-related science to the community at UW-Madison. In particular, this laboratory will add to existing facilities within the department to make it a leader in a variety of geochronology and geochemistry techniques.

The need to outfit a laboratory for this recent hire is exceptionally urgent. This project creates the unique laboratory environment and support facilities that are essential for Professor Dutton to establish her research program.

Budget/Schedule

Construction	$1,493,000
Design	$374,300
Contingency	$189,600
Equipment	$75,000
Other Fees	$58,100
TOTAL	$2,190,000

A/E Selection	Dec 2019
BOR Approval	Apr 2020
Bid Opening	Jan 2021
Start Construction	Feb 2021
Substantial Completion	Oct 2021

Previous Action

April 2, 2020 Resolution 11410	Authorized construction of the Weeks Hall 4th Floor Dutton Laboratory Renovation project for an estimated total cost of $1,924,670 Gift Funds.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-15, "Physical Development Principles"
- Regent Policy Document 19-16, "Building Program Planning and Approval"

AUTHORITY TO CONSTRUCT THE WISCONSIN INSTITUTES FOR MEDICAL RESEARCH DOCK AND NIH RESEARCH LAB RENOVATION PROJECT, UW-MADISON

REQUESTED ACTION

Adoption of Resolution G., authorizing the completion of design and construction of the Wisconsin Institutes for Medical Research Dock and NIH Research Lab Renovation project.

Resolution G. That, upon the recommendation of the Chancellor of UW-Madison and the President of the UW System, the UW System Board of Regents authorizes the completion of design and construction of the Wisconsin Institutes for Medical Research Dock and NIH Research Lab Renovation project for an estimated total project cost of $5,350,000.

SUMMARY

This project renovates approximately 5,400 GSF of the existing space in the Wisconsin Institutes for Medical Research (WIMR) II Tower into a National Institute of Health (NIH) grant medical research vivarium lab for infectious disease research for the Wisconsin National Primate Research Center (WNPRC). The renovation will add a nine-room infectious disease suite to the existing WIMR non-human primate (NHP) vivarium.

Concurrently, this project adds a new 3,200 GSF loading dock to the building.
The addition will be a single-story loading dock facility located directly south of the newly completed WIMR West Wedge addition.

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

WNPRC occupies most of WIMR II Level 1 adjacent to the existing WIMR loading dock. Since 2016, the number of HIV/AIDS-related research protocols at WNPRC has escalated at a particularly rapid pace as a result of the growth of core investigators' programs and an increase in collaborative studies with affiliate investigators nationwide. This rapid increase has placed a strain on the existing WNPRC infrastructure dedicated to the support of infectious disease studies (e.g., animal housing space, animal enclosures, animal clinical/procedure rooms). In addition to these increases, several recent trends have further exacerbated limitations on available animal housing and procedure space, including but not limited to an increase in the average duration of HIV/AIDS-related experiments due to the administration of combined antiretroviral therapy (cART), sophisticated vaccine regimens, and SIV/SHIV latency reversing agents; and the need to segregate animals negative for adeno-associated virus (AAV) strains used as gene delivery vectors.

The School of Medicine and Public Health (SMPH) Master Plan noted development of the overall WIMR Complex was to be a phased approach to a multi-project development build-out over a 25-year time frame. This was to be based on research need and as funding became available. WIMR Towers I (2005) and II (2011) have been constructed; however, there is no current schedule for the completion of Tower III. As part of these three main structures, there are lower level infill structures and facility service functions that continue the build-out process toward the south and west as development of the WIMR complex continues to evolve. As the funding and research space need is confirmed, renovations and additions have been per the SMPH Master Plan. Completion of this project continues the multi-phased development plan including the necessary loading dock addition that has been anticipated as part of this growth strategy.

Budget/Schedule

Construction	$3,850,000
Design	$646,000
Contingency	$430,000
Equipment	$267,500
Other Fees	$156,500
TOTAL	$5,350,000

A/E Selection	May 2020
BOR Approval	Oct 2020
Bid Opening	Jul 2021
Start Construction	Aug 2021
Substantial Completion	Oct 2022
Final Completion	Apr 2023

Previous Action

- None.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-15, "Physical Development Principles"
- Regent Policy Document 19-16, "Building Program Planning and Approval"

Capital Planning & Budget Committee **Item H.**
October 8, 2020

AUTHORITY TO CONSTRUCT A 2019-21 CLASSROOM RENOVATION/INSTRUCTIONAL TECHNOLOGY IMPROVEMENT PROGRAM PROJECT, UW SYSTEM

REQUESTED ACTION

Adoption of Resolution H., authorizing construction of a 2019-21 Classroom Renovation/ Instructional Technology Program project.

Resolution H. That, upon the recommendation of the President of the UW System, the UW System Board of Regents approves the allocation of 2019-21 Classroom Renovation/Instructional Technology Improvement Program funds; authorizes construction of the related project at an estimated total cost of $5,763,500 General Fund Supported Borrowing of the originally enumerated $31,689,000 General Fund Supported Borrowing; and allows the Division of Facilities Development to transfer balances, adjust individual project budgets, and add or substitute other high-priority Classroom Renovation/Instructional Technology projects within the authorized funding.

SUMMARY

Inst	Project	GFSB	Cash	Total
GBY	Instructional Services Electrical Engineering Tech Lab Renovation	$5,763,500	0	$5,763,500
	Total	$5,763,500	0	$5,763,500

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

<u>UW-Green Bay – IS Engineering Tech Labs & Sports Communication</u>:

This project converts approximately 17,025 gross square feet of the first floor of the Instructional Services Building into a permanent home for Electrical Engineering Technology (EET) and Physics.

The EET baccalaureate program, created in 2015, along with the newly formed Electrical Engineering program, has lacked a permanent home since its inception. The rapidly growing programs were created due to the high regional demand for a local workforce. Along with the Physics Department that supports them, these programs have been relocated into temporary space three times in the last four years. Additionally, EET is scheduled for an Accreditation Board for Engineering and Technology (ABET) visit in 2021 as part of the accreditation process. ABET requires that EET students have access to specialized equipment, usually found in an electronics laboratory, an electrical machinery laboratory, and an electric simulation laboratory. EET has the equipment but lacks permanent space with the proper infrastructure to house it.

The space in the Instructional Services Building where EET will be located was mostly vacated in 2012, but still houses the Media Communications Program. The space has been underutilized and has incurred a significant backlog of deferred maintenance. As part of this project, space will be right-sized and outdated labs and equipment will be upgraded. The university hopes to attract more students to their Media Communications Program by providing more contemporary facilities for its curriculum.

Budget

Construction	$4,585,300
Design	$420,700
DFDM Mgt.	$202,200
Contingency	$467,300
Equipment	$88,000
Total	$5,763,500

Previous Action

August 24, 2018 Resolution 11079	Recommended that the UW System Instructional Space Projects Program Funding request of $38,000,000 General Fund Supported Borrowing be submitted to the Department

of Administration and the State Building Commission as part of the UW System's 2019-21 Capital Budget request.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-16, "Building Program Planning and Approval"

Capital Planning and Budget Committee — Item I.

October 8, 2020

AUTHORITY TO CONSTRUCT ALL AGENCY MAINTENANCE AND REPAIR PROJECTS, UW SYSTEM

REQUESTED ACTION

Adoption of Resolution I., authorizing construction of various maintenance and repair projects.

Resolution I. That, upon the recommendation of the President of the UW System, the UW System Board of Regents grants authority to construct various maintenance and repair projects at an estimated total cost of $8,387,800 ($1,495,300 General Fund Supported Borrowing; $3,866,500 Program Revenue Supported Borrowing; and $3,026,000 Cash).

SUMMARY

FACILITY MAINTENANCE AND REPAIR

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
STO	18I2S	Price Commons Kitchen Hood Repl (Increase)			$326,000		**$326,000**
SYS	19F2V	System-wide Electrical Metering/Eqpt Upgrade			$2,700,000		**$2,700,000**
		FMR SUBTOTALS	**$0**	**$0**	**$3,026,000**	**$0**	**$3,026,000**

UTILITY REPAIR AND RENOVATION

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
EAU	18J2C	Hibbard Hall/Towers Hall Parking Lot Reconst		$2,950,000			**$2,950,000**
STP	19F2Q	Steam Pits 3/4/5/7/13/14 Replacement	$1,495,300	$916,500			**$2,411,800**
		URR SUBTOTALS	**$1,495,300**	**$3,866,500**	**$0**	**$0**	**$5,361,800**

	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
OCTOBER 2020 TOTALS	**$1,495,300**	**$3,866,500**	**$3,026,000**	**$0**	**$8,387,800**

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

UW-Stout – Price Commons Kitchen Hood Replacement Increase:

This request increases the project budget to match recent bid results. The budget increase is needed to complete the originally approved project scope and intent.

This project replaces the kitchen exhaust hoods and balances the HVAC system to accommodate the new hood exhaust capacities. New kitchen exhaust hoods will be designed to match current kitchen operations and locations and to provide as much flexibility for future change in operations as is practical. Project work includes evaluation and assessment of current conditions; replacement of kitchen exhaust hoods and associated controls; modifications to the building HVAC, electrical distribution, and fire suppression systems to accommodate the new hood design and capacities; and installation and repair of associated roof penetrations. Testing and balancing the building HVAC system as well as owner training on the new equipment will also be provided.

The kitchen hoods, originally installed in 1967, are energy inefficient due to lack of control. All hoods are switched on at 5 a.m. every morning and are not shut down until midnight. The hoods do not meet current life safety codes as they were originally designed and configured for a different array of equipment and menu offerings. The replacement hoods need to be reconfigured, resized, and designed for the current kitchen operations and menu offerings and to provide as much practical flexibility for future modifications.

UW System – Systemwide Electrical Metering & Associated Electrical Equipment Upgrades:

This project will be conducted in multiple phases, providing and installing electronic meters throughout multiple UW main campuses. Phase 1 work will concentrate solely on UW-Milwaukee. Future phases will prioritize UW-Green Bay and UW-Platteville. Project work at UW-Milwaukee includes providing and installing new electronic meters throughout the campus, integrating them with the existing building automation system, and replacing three electrical distribution switchboards. Project work at other locations includes providing and installing new electronic meters throughout select campuses. Meters will be connected to existing meter logging software, if available, or connected to a new PC with meter logging software where necessary.

The project will provide improved electric usage data to target deficiencies in optimal electric usage, help target potential electric energy conservation projects, and track savings from completed conservation projects to determine if expected energy savings are being realized. Replacing manually logged meters will result in more accurate data logging and free up staff hours to work on other required maintenance projects.

UW-Eau Claire – Hibbard Hall/Towers Hall Parking Lot Reconstruction:

This project demolishes both the Hibbard Hall and Karlgaard Towers Hall parking lots and constructs a new approximately 270-stall asphalt paved parking lot for Hibbard Hall and a new approximately 600-stall asphalt paved parking lot for Karlgaard Towers Hall. Project work includes site grading, storm sewer installation and augmentation, new parking lot lighting, and storm water quality management and treatment features.

The Hibbard Hall parking lot has not been resurfaced or reconstructed since its original construction in 1970. The Karlgaard Towers Hall parking lot was resurfaced in 1989. Annual asphalt maintenance has been routinely performed to extend the useful life of each lot. These routine maintenance procedures are no longer cost-effective as the lot surface has deteriorated significantly, the surface drainage no longer performs as intended and results in water or ice issues throughout the year, and numerous potholes have developed in each lot.

UW-Stevens Point – Steam Pits 3/4/5/7/13/14 Replacement:

This project replaces six steam pit structures across campus. Project work includes replacing the deteriorating steam pit structures for Pits 3, 4, 5, 7, 13 and 14; all associated appurtenances, expansion joints, and valves; rehabilitating or replacing the interconnecting concrete box conduits as needed; installing new isolation and bypass valves; and site grading, landscaping, or other provisions made to divert and/or protect the utility pits immediately below pedestrian walkways or roadways from salt deterioration. Steam Pit 14 will be removed and reconstructed in its entirety, with new lighting and electrical power outlets provided, and a new sump pump installed. The underground concrete box conduit between Nelson Hall and Pit 14 will also be replaced, along with its associated 2-1/2-inch steam and 1-1/4-inch condensate utility lines, with direct-buried piping. A spare electrical conduit will also be installed for future controls wiring. Pit 14 will be enlarged and constructed to accommodate a future extension of 10-inch steam and 6-inch condensate lines to the north. Isolation valves will be added in Pit 10 on the 8-inch steam and 4-inch condensate lines.

Steam pits 3, 4, 7, and 14 are all in need of emergency concrete structure replacement as well as portions of their associated concrete box conduit extensions. These utility pits have water infiltration from structural cracks, spalled concrete, exposed rebar, corroded anchors, and leaking expansion joints. Pit 14 had to be structurally stabilized due to collapsing side walls and roof integrity since it is in the pedestrian walkway. This 1974-era utility pit has large structural cracks in the south wall and at all walls approximately six inches from the ceiling. There are structural concrete cracks throughout the pit. The condensate line between Nelson Hall and Pit 14 failed last fall and exposed the remaining line, which also shows signs of deterioration. The concrete box conduits heading north and south from Pit 14 are also in poor condition.

Previous Action

July 12, 2019 Resolution 11263	The Board of Regents previously granted authority to construct the UW-Stout Price Commons Kitchen Hood Replacement project at an estimated total cost of $674,000 Cash.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-15, "Physical Development Principles"
- Regent Policy Document 19-16, "Building Program Planning and Approval"

Capital Planning and Budget Committee **Item J.**
October 8, 2020

AUTHORITY TO CONSTRUCT MINOR FACILITIES RENEWAL PROJECTS, UW SYSTEM

REQUESTED ACTION

Adoption of Resolution J., authorizing construction of two minor facilities renewal projects.

Resolution J. That, upon the recommendation of the President of the UW System, the UW System Board of Regents grants authority to construct two minor facilities renewal projects at an estimated total cost of $8,506,000 General Fund Supported Borrowing.

SUMMARY

MINOR FACILITIES RENEWAL, GROUP 3

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
MIL	19G2O	Multi-Building Exterior Envelope Repair	$3,708,000				**$3,708,000**
PLT	19G2Y	Karrmann Library HVAC Renv/Skylight Repl	$4,798,000				**$4,798,000**
		MFR, GROUP 3 SUBTOTALS	**$8,506,000**	**$0**	**$0**	**$0**	**$8,506,000**

	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
OCTOBER 2020 TOTALS	**$8,506,000**	**$0**	**$0**	**$0**	**$8,506,000**

Presenter

- Alex Roe, Senior Associate Vice President for Capital Planning and Budget

BACKGROUND

<u>UW-Milwaukee – Multi-Building Exterior Envelope Repair</u>:

This project repairs, renovates, and replaces components of the exterior envelopes, building entrances, loading dock pavements, and pedestrian pavements on or adjacent to six campus facilities. The design solution and all proposed project work for Vogel Hall will be reviewed, coordinated, and approved by the State of Wisconsin Historical Society and the UW System Administration historical preservation officer. The scope of work details by each individual building is outlined below.

1) Architecture & Urban Planning Building work includes replacing sealant at brick masonry, metal panel joints, and metal window joints; repointing deteriorated mortar joints on the brick masonry; patching concrete where exposed concrete is damaged; replacing deteriorated compression seals and sealant along the roofing systems counterflashing joints; and removing and replacing the sheet metal caps along the roof parapet.
2) Enderis Hall work includes replacing sealant at all precast concrete panel joints, brick masonry joints, and limestone coping unit joints; patching concrete; repointing of deteriorated mortar joints; rehabilitating all steel lintels and flashing along the west plaza; installing through wall flashing above the loading dock; and installing a new waterproofing/paver system above loading dock plaza.
3) Garland Hall work includes masonry tuckpointing; repairing masonry, terra cotta, and sandstone elements; exterior entryway enclosures, doors, and concrete stairways; loading dock structure; hand railings; gutters and downspouts; and re-grading the north courtyard turf and pedestrian walkways. The steel lintels, hand railings, guard railings, and exterior door assemblies will be repainted. Select exterior door assemblies will be repaired or replaced. Masonry joint sealants will be replaced. The canopy will be repaired and exterior masonry surfaces will be cleaned to remove efflorescence. The loading dock knee wall and concrete slab will be reconstructed. The gutter and downspout joints will be soldered to prevent leaking. All aluminum windows will be repaired and their sealants will be replaced.
4) Golda Meir Library work includes repairing or replacing coping and flashing systems along all elevations including stairwell facades and waterproofing the concrete masonry systems enclosing the east wing walls.
5) Pearse Hall work includes masonry tuckpointing; repairing the exterior envelope masonry, sandstone, and wood elements; the north and northwest entryways; and re-grading the north courtyard turf and pedestrian walkways. The north parapet and masonry tower walls will be reconstructed. The exterior surfaces of masonry and sandstone element surfaces will be cleaned. All copper downspouts and gutters and metal flashing will be repaired. All steel lintels, wood louvers, and guard rails will be repainted. The north entryway door assembly will be repainted and the northwest entryway door assembly and sandstone will be replaced.
6) Vogel Hall work includes masonry and limestone tuckpointing; repairing, restoring, or replacing exterior entryway enclosures and door assemblies; exterior half-timber, stucco, brick and limestone masonry; wood lap siding and trim facade elements; copper downspouts, gutters, and scuppers; area well metal grates; joint sealants; hand railings; and select pedestrian walkway sections. Masonry sealants will be replaced. Paint coatings will be replaced with new finishes. Exterior masonry surfaces will be cleaned. The gutter and downspout joints will be soldered to prevent leaking. The deteriorated wood panels will be removed and replaced. The east and west entryway doors will be repaired, new weather stripping and sealants will be installed on door assemblies, and all finishes will be replaced. The entryway

hand railings and building area well metal grates will be repainted. One section of the concrete pedestrian walkway near the east entryway will be replaced.

Upon SBC approval, the project will be divided into two phases for bidding and construction. The first phase will consist of Enderis Hall, Golda Meir Library, and the Architecture and Urban Planning Building to be bid and constructed during the 2021 construction season. The second phase will include Garland Hall, Pearse Hall, and Vogel Hall to be bid and constructed during the 2022 construction season.

The Architecture & Urban Planning Building (140,438 GSF) was constructed in 1991 and the façade consists primarily of masonry cavity walls, aluminum-framed curtainwall, and metal clad cavity walls. Repairs to the curtainwall, which were completed in 2004, included adding weep holes in the 12 protruding frames at the north elevation and resealing the back leg of the top panel sections of the frames. The joint sealants at the masonry and metal cavity wall areas have failed or are significantly deteriorated, making the envelope vulnerable to water intrusion. Similarly, locations where compression seals are missing or are incorrectly installed compromise the building envelope. Tuckpointing of masonry brick and repairs to exposed concrete are required to restore a sound and watertight exterior.

Enderis Hall (152,968 GSF) was constructed in 1970 with a 21,715 GSF addition constructed in 1983 and the façade consists primarily of masonry cavity walls, aluminum-framed curtainwall, and metal clad cavity walls. Repairs to the curtainwall were completed in 2004 which included adding weep holes in the 12 protruding frames at the north elevation and resealing the back leg of the top panel sections of the frames. The joint sealants at the precast panels and masonry wall area façade elements and at the windows/doors are at the end of their useful lives and need to be replaced to prevent water intrusion and interior damage. Precast panel spall repairs and steel embed/anchorage attachment systems need to be investigated to source the origin of the rust staining that is visible and corrective action needs to be taken to ensure that the original tower building system is securely held in place. Brick masonry tuckpointing repairs or reconstruction needs to be completed in areas where deterioration is evident such as the southeast planter, east façade, and the door area at the southeast corner of the building. The northeast loading dock area and entry vestibule have multiple poor physical condition issues that are evident and in need of significant repairs.

Garland Hall (46,312 GSF) was constructed in 1909 as a dormitory for the Milwaukee-Downer Seminary. The façade consists primarily of face brick with sandstone windowsills, sandstone window and entrance surrounds, sandstone copings, and sandstone belt courses. Terra cotta bays are present at the east, south, and north facades. An entrance/connector addition between Garland Hall and Pearse Hall was constructed in 1983, including an accessible ramp near the loading dock at the west façade. The face brick masonry and sandstone mortar joints need tuckpointing to replace missing or loose materials and prevent failure. The sandstone elements at entrances need repair to resolve

de-icing agent-induced erosion. Previously completed sandstone element patches elsewhere are failing and becoming loose. The spalled terra cotta areas and cracks need to be resolved to prevent further degradation. The entry doors and frames need repairs to avoid further degradation and eventual failure. The Garland Hall to Pearse Hall connector needs sealant and exterior door replacement to prevent water infiltration. The gutter and downspout joint repairs and window sealant replacement is required to avoid water intrusion and ponding issues.

Golda Meir Library (151,475 GSF) was constructed in 1965 with additions in 1972 (114,734 GSF) and 1985 (135,137 GSF). Repeated failures of the flashing and coping systems have resulted in water damage and mold in space that contains valuable and historical artifacts.

Pearse Hall (31,200 GSF) was constructed in 1909 as part of the Milwaukee-Downer Seminary and the façade consists primarily of face brick with sandstone window heads and sills, sandstone entrance surrounds, sandstone copings, and sandstone belt courses. The original wood windows were replaced at some point with single-glazed aluminum windows. The downspouts and gutters were replaced in the 1980s with copper materials. Many of the sandstone elements have been replaced. The face brick façade elements need repair. The north tower/parapet has significant cracks and the brick has shifted from its original positioning in some areas. Tuckpointing is also required on all façades where joints have deteriorated due to age and weather. The sandstone at the northwest entrance is significantly deteriorated due to de-icing agent-induced erosion.

Vogel Hall (12,578 GSF) was constructed in 1929 as part of the Milwaukee-Downer Seminary. The building is listed as contributing to the Milwaukee Downer Quad on the Wisconsin Historic Registry and the National Historic Register. The façade consists primarily of face brick with limestone window and entrance surrounds. The second-floor façade primarily consists of half-timbered stucco, with wood lap siding at the south and west gables. The original wood windows were replaced with single glazed aluminum windows in the early 1980s. The gutter and downspouts are original copper. The west entry has an open wood vestibule shelter. Vented/heated interior furred walls were constructed in the early 1980s to protect the exterior walls from thermal shock. Due to the building's age, naturally occurring erosion, and wear-related to weather exposure and thermal cycles, the building elements have reached a state where significant repairs are needed. Masonry brick and limestone façade elements have loosened and eroded mortar joints are in need of tuckpointing. The limestone elements near the entries have spalled areas resulting from exposure to de-icing salts. The half-timber elements are degrading and in need of repair and paint. The wood-sided gables with trim are deteriorated beyond repair and need to be replaced.

Budget

Construction	$	2,738,300
Design	$	280,900
DFDM Mgt	$	130,600
Contingency	$	525,300
Other Fees	$	32,900
TOTAL	**$**	**3,708,000**

<u>UW-Platteville - Karrmann Library HVAC System Renovation/Skylight Replacement</u>:

This project renovates the HVAC system and replaces the skylights located within the Karrmann Library. Project work includes replacing air handling units, perimeter fin tube radiation and the associated exhaust and return air fans, all horizontal runs of heating water piping, and suspended acoustical ceilings and associated light fixtures; installing new terminal air boxes; cleaning or replacing air supply ductwork; and installing new return air ductwork. New direct digital controls (DDC) will be installed for the new HVAC system. Voice paging features will be integrated into the fire alarm system. Asbestos abatement will be performed on various mechanical equipment and piping insulation. Project work also includes replacing the skylights above the main corridors on the second and third floors.

The building HVAC deficiencies were identified in a feasibility study. A central campus chilled water plant was established in Russell Hall with a 600-ton chiller and cooling tower. Although Karrmann Library is connected to that central plant, the vast majority of mechanical equipment, ventilation systems, and associated controls are original to the building, which was constructed in 1969. Due to age, deterioration, and wear from continuous operation, portions of the HVAC system have failed and other portions are failing. The HVAC controls are antiquated and are not compatible with the campuswide building automation system.

The skylights are also original to the building and have failed in multiple locations, allowing water to infiltrate the library. Skylights located above stacks, study areas, and main circulation or gathering areas directly impact how these spaces are used during and after rain events. Depending on the direction of the storm, plastic sheeting above the stacks and trash cans is used to collect water that penetrates the building envelope. Mold has grown in areas that do not fully dry after each rain event. Physical Plant staff have repaired flashings and some of the damaged plastic domed skylights and contractors have replaced cracked glass and failed flashings.

Budget

Construction	$	3,696,000
Design	$	377,200
DFDM Mgt	$	170,100
Contingency	$	554,700
TOTAL	**$**	**4,798,000**

Previous Action

None.

Related Policies

- Regent Policy Document 19-8, "Funding of University Facilities Capital Costs"
- Regent Policy Document 19-15, "Physical Development Principles"
- Regent Policy Document 19-16, "Building Program Planning and Approval"