

1/20/2016

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

I.3. Capital Planning and Budget Committee

Thursday, February 4, 2016
9:00 a.m. – 10:30 a.m.
Union South, Varsity Hall I
UW-Madison
Madison, Wisconsin

- a. Approval of the Minutes of the December 10, 2015 Meeting of the Capital Planning and Budget Committee
- b. UW-Madison: Approval of the Design Report and Authority to Construct the Near West Playfields Upgrade Project
[Resolution I.3.b.]
- c. UW-Madison: Approval of the Design Report of the Meat Science Laboratory Project and Authority to: (a) Demolish the Seed Building, (b) Increase the Budget and (c) Construct the Project
[Resolution I.3.c.]
- d. UW System: Authority to Construct All Agency Maintenance and Repair Projects
[Resolution I.3.d.]
- e. Report of the Associate Vice President
 1. State Building Commission Actions
 2. Other Updates

Approval of the Design Report and
Authority to Construct the Near West
Playfields Upgrade Project, UW-Madison

CAPITAL PLANNING AND BUDGET COMMITTEE

Resolution:

That, upon the recommendation of the UW-Madison Chancellor and the President of the University of Wisconsin System, the Design Report for the Near West Playfields Upgrade project be approved and authority be granted to construct the project for an estimated total project cost of \$6,740,000 (\$5,740,000 Program Revenue Supported Borrowing and \$1,000,000 Program Revenue-Cash).

THE UNIVERSITY OF WISCONSIN SYSTEM

**REQUEST FOR
BOARD OF REGENTS ACTION
FEBRUARY 2016**

INSTITUTION: The University of Wisconsin-Madison

REQUEST: Approval of the Design Report and authority to construct the Near West Playfields Upgrade project for an estimated total project cost of \$6,740,000 (\$5,740,000 Program Revenue Supported Borrowing and \$1,000,000 Program Revenue-Cash).

PROJECT DESCRIPTION: This project will upgrade the outdoor playfields located west of the Natatorium on Observatory Drive. The existing, natural turf fields will be excavated and graded to allow for the placement of synthetic turf playing fields. The new fields will accommodate a variety of programs and have been specifically sized to accommodate five flag football fields, a championship soccer field, a lacrosse field, a softball field, and a baseball field. The fields will contain a perimeter fence with locked entrances to control access. Athletic lighting improvements will also be made. Stormwater runoff from the synthetic turf fields will be stored in an aggregate drainage layer that will control its release to the existing detention basins located south and east of the fields.

PROJECT JUSTIFICATION: This project was enumerated in the 2015-17 Capital Budget. The recreational facilities served 1.7 million patrons in 2012-13. Patrons consist of enrolled student members, who have paid segregated university fees with their tuition. Regular and affiliate faculty and staff may also purchase a membership, as can their spouses/domestic partners. The mission of the Division of Recreational Sports (Rec Sports) is to enhance the collegiate experience by providing top-quality programs, services, and facilities, while recognizing that a student's campus experience extends beyond the classroom or laboratory. The division manages all of the student recreational facilities, including: the Natatorium/Gym Unit II; the Southeast Recreational Facility (SERF); the Nielsen Tennis Stadium; and the Camp Randall Sports Center (Shell). Rec Sports also manages the outdoor fields, including University Bay Fields, Near East Fields, and Near West Fields.

The Near West Fields are located on Observatory Drive west of the Natatorium/Gym Unit II, between Willow Creek and Walnut Street and serve the outdoor Intramural Sports leagues and Sport Club teams. They comprise 6.7 of the 42 acres of outdoor recreational areas across the campus. Near West Field activities total an average of 1,500 hours of use per year and include: Intramural Sports games; Sport Club team practices and competitions; special events; and Kinesiology classes. The fields also accommodate significant use by students for general recreation.

The most recent improvement to the soil and drainage of this site was done in 2005 after completion of the West Campus Cogeneration Facility project, for which the field served as a staging site.

This project will expand the ability of Rec Sports to better meet program demand. Dozens of teams are turned away for activities such as flag football and softball due to a lack of space that would accommodate those sports. In addition, annual statistics show that 25 to 40 percent of scheduled practices and games are canceled due to wet playing field conditions. The poor drainage and proximity to the lake leave the fields unplayable after rain, sometimes for multiple days per storm event. Improvement of this site with the addition of permeable synthetic turf would allow the majority of games and practices to be hosted as scheduled at the site.

BUDGET/SCHEDULE:

Construction	\$3,839,500
Design	\$394,000
DFD Management	\$164,500
Contingency	\$267,500
Equipment	\$2,039,500
Other Fees *	\$35,000
	\$6,740,000

* Includes an Environmental Impact Assessment, a topographic survey, and geotechnical borings.

PREVIOUS ACTION:

August 21, 2014
Resolution 10393

Authorized that the Near West Playfields Upgrade project be submitted to the Department of Administration as part of the 2015-17 Capital Budget request at an estimated total project cost of \$6,740,000 (\$5,740,000 Program Revenue Supported Borrowing and \$1,000,000 Program Revenue-Cash).

Approval of the Design Report of the Meat Science Laboratory Project and Authority to: (a) Demolish the Seed Building, (b) Increase the Budget and (c) Construct the Project, UW-Madison

CAPITAL PLANNING AND BUDGET COMMITTEE

Resolution:

That, upon the recommendation of the UW-Madison Chancellor and the President of the University of Wisconsin System, the Design Report of the Meat Science Laboratory project be approved and authority be granted to: (a) demolish the Seed Building, (b) increase the budget by \$2,900,000 Gift Funds, and (c) construct the project at a total cost of \$45,777,000 (\$22,877,000 General Fund Supported Borrowing and \$22,900,000 Gift Funds).

THE UNIVERSITY OF WISCONSIN SYSTEM

**REQUEST FOR
BOARD OF REGENTS ACTION
FEBRUARY 2016**

INSTITUTION: The University of Wisconsin-Madison

REQUEST: Approval of the Design Report of the Meat Science Laboratory project and authority to: (a) demolish the Seed Building, (b) increase the budget by \$2,900,000 Gift Funds, and (c) construct the project at a total cost of \$45,777,000 (\$22,877,000 General Fund Supported Borrowing and \$22,900,000 Gift Funds).

PROJECT DESCRIPTION: This project constructs a new 67,540 GSF building for the Meat Science program at the UW-Madison. The new building will be located between Observatory and Linden drives on a site currently occupied by the Seed Building, which will be demolished. The two-story building will house a meat laboratory, lecture/demonstration suite, Biosafety Level 2 (BSL-2) laboratory suite, teaching and research laboratories, faculty offices, and support spaces.

The GSF of the structure is 30% greater than what was proposed for enumeration. First floor highlights include a retail shop; two lecture halls with demonstration areas; a conference room; different types of meat processing labs/rooms and a BSL-2 suite. Second floor highlights include five labs, nine offices, and a graduate student work area.

Extra effort was taken during the design phase to make sure that the BSL-2 research spaces and the rest of the meat lab teaching/production spaces are flexible/state-of-the-art spaces that will keep pace with industry standards and practices for the foreseeable future.

PROJECT JUSTIFICATION: Wisconsin's meat industry contributes \$12 billion to the state's economy, provides 88,000 rural and urban jobs, and pays \$450 million in state and local taxes.

For nearly 70 years, the University of Wisconsin-Madison's meat science and muscle biology program has conducted scientific research which has improved meat quality and food safety. Meat and Muscle scientists collaborate with a deep interdisciplinary reservoir of research talent that ranges from bacteriology and biochemistry to food science and medicine. They work closely with UW Extension and have a long history of government and industry-funded meat safety research.

The new building will provide state-of-the-art animal handling, processing, demonstration, and research capabilities that do not exist in the current meat and muscle biology laboratory. The new facility will allow greater opportunities to partner with state and national meat companies to test methods for the elimination of pathogens and develop new processes and products using state-of-the-art equipment.

Training capabilities will be enhanced by the new building. The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has expressed an interest in using this facility to train its inspectors. Current training methods require that inspectors travel to numerous locations to observe and receive hands-on training in the full range of livestock and poultry harvest and processing. This facility will provide a single site at which the full range of training can occur. Since food safety regulations are continually updated, the proximity of this facility to DATCP facilitates a high-quality training program for inspectors.

BUDGET/SCHEDULE:

Construction	\$34,732,000
Design	\$2,797,000
DFD Management	\$1,490,800
Contingency	\$2,763,200
Equipment	\$3,554,000
Other Fees	\$440,000
TOTAL	\$45,777,000

* Equipment total includes \$225,000 work by agency.

PREVIOUS ACTION:

08/23/2012

Resolution 10101

Authorized that the Meat Science Laboratory project be submitted to the Department of Administration and the State Building Commission for enumeration as part of the 2013-15 Capital Budget Request at an estimated total project cost of \$42,877,000 (\$22,877,000 General Fund Supported Borrowing and \$20,000,000 Gift Funds).

Authority to Construct All Agency
Maintenance and Repair Projects,
UW System

CAPITAL PLANNING AND BUDGET COMMITTEE

Resolution:

That, upon the recommendation of the President of the University of Wisconsin System, authority be granted to construct various maintenance and repair projects at an estimated total cost of \$9,119,700 (\$2,048,000 General Fund Supported Borrowing; \$912,000 Program Revenue Supported Borrowing; and \$6,159,700 Agency Cash).

THE UNIVERSITY OF WISCONSIN SYSTEM

**REQUEST FOR
BOARD OF REGENTS ACTION
FEBRUARY 2016**

INSTITUTION: University of Wisconsin System

PROJECT REQUEST: Authority to construct various maintenance and repair projects at an estimated total cost of \$9,119,700 (\$2,048,000 General Fund Supported Borrowing; \$912,000 Program Revenue Supported Borrowing; and \$6,159,700 Agency Cash).

FACILITY MAINTENANCE AND REPAIR

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
MIL	15K1G	Sandburg Hall South Tower Restroom Renv			\$2,963,000		\$2,963,000
MSN	15A1Y	Kohl Center Roof Replacement			\$2,518,000		\$2,518,000
MSN	15A1X	School of Social Work Ext Masonry Repr	\$393,700				\$393,700
RVF	15L1X	South Fork Suites Roof Repl		\$331,000			\$331,000
WTW	14E1M	Univ Ctr AHUs 2-3 Repl			\$250,000		\$250,000
FMR SUBTOTALS			\$393,700	\$331,000	\$5,731,000	\$0	\$6,455,700

UTILITY REPAIR AND RENOVATION

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
GBY	14C2G	Campus Ext Safety Rails/Plaza/Stairs Renv	\$1,177,700		\$276,300		\$1,454,000
MSN	15L1S	Charter St Substation 4160-volt Circuit Addn	\$476,600		\$142,400		\$619,000
URR SUBTOTALS			\$1,654,300	\$0	\$418,700	\$0	\$2,073,000

ENERGY CONSERVATION

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
COL	13A1K	UWRCH Multi-Building Energy Conservation		\$581,000	\$10,000		\$591,000
EC SUBTOTALS			\$0	\$581,000	\$10,000	\$0	\$591,000

	GFSB	PRSB	CASH	GIFT/GRANT	TOTAL
FEBRUARY 2016 TOTALS	\$2,048,000	\$912,000	\$6,159,700	\$0	\$9,119,700

PROJECT DESCRIPTION:

Facility Maintenance and Repair Requests

MIL – Sandburg Hall South Tower Restroom Renovations (\$2,963,000): This project renovates 160 residence hall suite bathrooms located on floors 1 through 20 within the Sandburg Hall South Tower (120,000 GSF). This project will be accomplished in two phases. Phase I will complete work on floors 11-20 during the summer of 2017 and Phase II will complete work on floors 1-10 during the summer of 2018.

There are eight restrooms per floor. Five of the restrooms have an atypical room layout and the remaining 155 rooms have a similar layout. Project work includes replacing domestic water and

sanitary waste piping, shower stalls, water closets, sinks, vanity shelves, fixtures and fittings, and all room finishes. Partial demolition and restoration of the wall boards will be required to facilitate water closets, piping, and vanity fixtures replacement. Full demolition and restoration of the shower tile and wall board systems will be required to allow piping and shower stalls replacement. The wing walls separating the shower stalls and vanities will be reconstructed. All room finishes will be replaced. Electrical outlets, lighting controls, and exhaust grilles will be replaced. Fire-stopping will be installed for all existing vertical penetrations in affected plumbing chases.

The galvanized steel plumbing piping is original to the building (1967) and the lateral waste and water supply piping has failed in numerous locations due to corrosion and general age-related degradation. Emergency repairs have been performed to restore operations, but students have been displaced and inconvenienced by each occurrence. The frequency of failures is increasing, which has led to concerns regarding system dependability, safety, and the loss of revenue. The lead-lined shower pans have begun to leak, which has required costly and only temporary repairs due to the difficulties of interfacing with existing aged materials. When plumbing piping and shower leaks occur, wastewater and city water travels vertically through plumbing chases to the basement level due to the lack of fire-stop materials and penetration sealant. Fire safety will be enhanced with the completion of this project.

MSN – 15A1Y – Kohl Center Roof Replacement (\$2,518,000): This project replaces all Hypalon roofing systems at the Kohl Center and the contiguous Nicholas-Johnson Pavilion. Project work includes replacing all 167,150 SF across 13 areas of roof membranes with fully adhered Ethylene Propylene Diene Monomer (EPDM) roof systems, and replacing or augmenting roof insulation as necessary to obtain an R24 rating. Roof systems will be tapered to the drain areas as needed. Drains will be inspected and clamping rings and bowl bolts replaced to ensure a proper seal. New wall flashing and cap metal with termination bar will be installed. Staging areas will be strictly defined and coordinated with the campus to ensure pedestrian safety and underground utilities protection as the roof replacement proceeds around the building.

The roof sections are more than 18 years old. Recent site inspections by the Physical Plant staff and the Division of Facilities Development determined these roof sections require replacement to address current leaking, weathered, worn, and/or damaged sections. These repairs will extend the life of the roof sections and prevent moisture from penetrating the building envelope. There have been numerous leaks on all roof areas since its original installation and the upper roof Area 7 has split open at the seams, requiring that the interior seating below be closed due to water leaks. The manufacturer of the existing roof system is no longer in business.

MSN – School of Social Work Roof Exterior Masonry Repairs (\$393,700): This project replaces Area 4 roofing base and performs exterior masonry repairs at the School of Social Work. This project repairs roofing systems and completes all other associated ancillary work to maintain the building envelope integrity and prevent damage to the building and its contents. Project work includes replacing ~4,440 SF of Area 4 built-up roofing base and 282 LF of parapet wall, including resetting the limestone coping units. The facebrick will be repointed as necessary and select limestone trim and cornice units and joint sealants will be replaced. The concrete masonry units will be repaired as required. New through-wall flashing, weep holes, and ribbon stone

joints will be installed as required. This roof section is four stories high and due to proximity of adjacent buildings, provides only limited access for contractors.

Recent site inspections by the Physical Plant staff and Division of Facilities Development have determined that these roof sections require repair to address current leaking, weathered, worn, and/or damaged sections. These repairs will extend the life of the roof sections and prevent moisture from penetrating the building envelope. During rain events, water leaks into the building from the exterior of this parapet section due to open masonry joints and deteriorated brick. The face brick is spalling and there is evidence of masonry materials falling to the ground.

RVF – South Fork Suites Roof Replacement (\$331,000): This project replaces roof coverings and completes all other associated ancillary work to maintain the building envelope integrity and prevent damage to the building and its contents. Project work includes installing approximately 29,000 SF of new granulated metal shingles over the top of the 3-tab asphalt shingles. Devices should be installed at the roof eaves above exterior doors to protect pedestrians from the falling snow and ice. This project will also install new OSHA-compliant roof access ladders and safety tie-off points for roof inspections and maintenance.

The 3-tab asphalt shingles were installed when the building was originally constructed in 2004. Recent inspections by Physical Plant staff have determined that the roof surface requires replacement to address significant shingle deterioration and curling edges. These repairs will extend the life of the roof sections and prevent moisture from penetrating the building envelope.

WTW – Connor University Center Air Handling Units 2-3 Replacement (\$250,000 increase for a new total project cost estimate of \$1,292,400): 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. The general contractor bids were higher than expected due to construction work needing to be performed and completed during heavy occupancy in the summer months to accommodate summer camps and freshman orientation. Rebidding the project was considered, but it was not anticipated that it would result in lower bids due to the nature of the work in an occupied building; and further delay would result in postponing the work for another summer.

Utility Repair and Renovation Requests

GBY – Campus Exterior Safety Railings, Plaza, and Stairs Renovation (\$1,454,000): This project replaces the exterior safety railings and redevelops select exterior pedestrian plazas and exterior stairs at recessed building ingress/egress points. Project work includes demolition, disposal, and replacement of ~1,900 LF of steel safety railings cast into exposed aggregate concrete walls that are located in six pedestrian plaza and deck overlook areas. The concrete mounting walls will be saw cut to remove all failed material, and reduced in height to provide increased visual access while remaining high enough to provide suitable protection from snow removal equipment. A new limestone cap will be installed, and prepared to receive new metal safety railings. All concrete mounting walls will be assessed for structural stability and completely replaced if necessary. The new steel safety railings will be chosen to meet current ADA and OSHA standards and will be mounted and treated in a manner to maximize protection from the elements and de-icing agents and to minimize operational maintenance expense. Sections of the concrete walls will be patched and repaired where rebar is exposed or damaged from snow removal operations. The patching will not match the exposed aggregate finish, and

when completed, the entire wall surface will be coated with cementitious material and an elastomeric paint to match adjacent buildings.

Project work also includes demolition, disposal, and replacement of 8-foot wide exterior stairs of 25 to 29 risers each with associated handrails and ~8,500 SF of adjacent concrete plazas, asphalt walkways, planters, site lighting, and landscaping at five recessed building ingress/egress locations (Environmental Sciences, Institutional Services, Laboratory Sciences, Rose Hall, Wood Hall). Approximately 170 LF of metal handrails on a pedestrian ramp will also be replaced. Underground storm water infrastructure will be augmented and replaced as necessary to improve drainage in the project locations. Overgrown vegetation on the sloped terrain will be removed, and new paved areas will provide a positive pitch to new storm water drains. New concrete stairs and steel handrails will be provided with landings at mid-slope. Vegetation will be replaced with selections more appropriate in size. The new plaza pavements will be a combination of poured concrete with brick pavers.

The original steel safety rails were cast-in-place with the concrete mounting walls surrounding the pedestrian plazas and deck overlooks. Some of the walls were sandblasted to expose coarse aggregate for an aesthetic effect. After more than 40 years of being exposed to the elements and freeze-thaw cycles, this type of installation coupled with expansion and contraction of the wall and rails, has caused severe spalling of the concrete support structure. Virtually every anchor post is rusting and deteriorating. The walls have cracked and produced large chunks of loose concrete in some locations, which could fall and cause personal injury or property damage.

The original concrete stairways constructed in 1968 have slipped downward on the slopes causing uneven riser heights and awkward navigation. Handrails have rusted and deteriorated to the point of being loose and dangerous. Uneven asphalt paving prohibits drainage to existing storm drains. The outdoor areas have overgrown landscaping, shading some areas to the point of substantial moss growth. The poor drainage poses a flooding risk to adjacent buildings and the difficult access and uninviting nature of these exterior spaces has destroyed their functionality as gathering areas.

MSN – Charter Street Electrical Substation 4160-volt Circuit Addition (\$619,000): This project installs a new 4160-volt electric utility service from the Charter Street Substation to the Charter Street Heating Plant (CSHP) for redundancy. Project work includes installing a fused 4160-volt circuit from the Charter Street substation to a new transfer switch to be located within the Charter Street Heating Plant (CSHP) and provide backup for the T4 transformer, which is located on the roof of the plant and serves the north side of the plant as well as boilers #6 and #7. Project work also includes installing a new medium voltage automatic transfer switch and controls, motor control center, and variable frequency drive. This project will also reconnect the reverse osmosis equipment.

A potentially catastrophic, single point of failure has been identified in the electric utility distribution in CSHP. The loss of any component of the 13.8-kilovolt to 4160-volt circuit originating at the Dayton Street substation would result in the complete loss of power to the north side of the plant and it would not have the means of reestablishing an energy source. If the loss of power were due to an equipment failure, the plant would be without power for days or potentially weeks before temporary backup power could be established. The campus recently

experienced several electrical outages that affected power at CSHP resulting in the loss of chilled water and steam to the campus.

This backup electric utility feed will support the plant's mission-critical equipment and allow the restoration of power within the first hour after the loss of power or an equipment failure. The backup feed will originate from an alternative utility source and not the primary feed. This project will ensure minimal disruption to steam and chilled water service by providing heating and cooling to campus facilities and equipment.

Energy Conservation

COL – UW-Richland Center Multi-Building Energy Conservation (\$591,000): This project implements energy conservation measures based on a recently completed comprehensive investment-grade energy audit for seven buildings totaling 108,760 SF. The debt service will be paid from the annual energy cost savings. Six energy conservation measures will be implemented by this project. A majority of the energy savings will be achieved by upgrading interior and exterior lighting systems to LED fixtures and updating the control points on the heating and ventilation systems to allow for more efficient operation. These changes will take place across multiple campus buildings. Additional savings will be achieved through installing new vending machine controls and building envelope improvements. This project includes re-commissioning existing direct digital control points, re-commissioning/tuning existing control loops, re-commissioning/modifying control sequences/strategies and developing schedules for improved energy efficiency.

The Department of Administration and the University of Wisconsin System embrace high-performance green building standards and energy conservation for state facilities and operations. 2005 Wisconsin Act 141 requires each agency to develop energy cost reduction plans. Plans must include all system and equipment upgrades that will pay for themselves in energy cost reductions over their useful life. The energy savings performance contracting program provides a process for UW System to affect energy cost reductions in existing buildings and utility systems.

This project will assist UW-Richland Center in complying with these energy reduction goals. The implementation of the energy conservation measures (ECMs) identified in this request will result in an anticipated annual energy cost savings of approximately \$37,000 with a simple payback of 16 years. This meets the state energy fund simple payback requirement of less than 16 years or a 20-year payback with repayment at a 5.25% bond rate and a 3% inflation rate.

PROJECT JUSTIFICATION:

UW System Administration continues to work with each institution to develop a comprehensive campus physical development plan, including infrastructure maintenance planning. After a thorough review and consideration of All Agency Project proposals and infrastructure planning issues submitted, as well as the UW All Agency Projects Program funding targets set by the Division of Facilities Development, this request represents high priority University of Wisconsin System infrastructure maintenance, repair, renovation, and upgrade needs. This request focuses on existing facilities and utilities, targets the known maintenance needs, and addresses outstanding health and safety issues. Where possible, similar work throughout a single facility or across multiple facilities has been combined into a single request to provide more efficient project management and project execution.

BUDGET AND SCHEDULE:

General Fund Supported Borrowing.....	\$ 2,048,000
Program Revenue Supported Borrowing.....	912,000
Agency Cash.....	<u>\$ 6,610,000</u>

Total Requested Budget\$ 9,119,700

PREVIOUS ACTION:

June 5, 2015 Resolution 10529	The Board of Regents previously approved WTW–Connor University Center Air Handling Units 2-3 Replacement project at an estimated total cost of \$1,042,400 Program Revenue Supported Borrowing.
December 11, 2016 Resolution 10614	The Board of Regents previously approved MSN–Kohl Center Roof Replacement project at an estimated total project cost of \$2,518,000 (\$1,510,800 GFSB and \$1,007,200 Cash).