

Physical Plant — June 2020 Operations Report

This newly initiated Operations Report provides a monthly update on Physical Plant’s progress to support education and research efforts across campus. The focus is primarily the summer project list; however, we highlight a few key areas (significant issues, ongoing Small Projects, capital project support, management of insurance claims) and present a topic of special interest (Helium Plant). We are incredibly proud of the stewardship and work our teams provide every day to create environments in which our campus community can thrive.

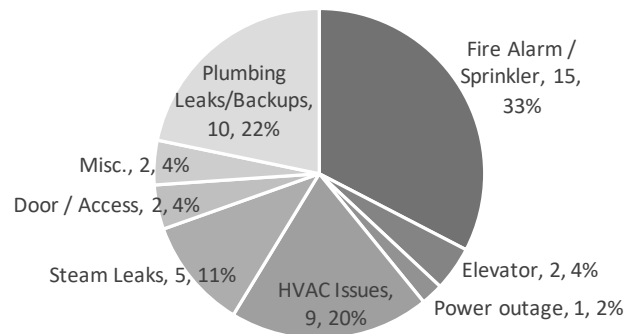
Breakdowns and Failing Facility Conditions Demand Significant Unplanned Efforts

Recent Significant Issues / Equipment Casualties:

Major equipment failure example: Primate Center Elevator #1 (April 28th): a leak in the underground jack drove a major repair, estimated to cost approximately six-figures to make it operational. We are working on securing an emergency Small Project to complete the repair (DFDM’s authority and management). The building has two elevators and both were installed in 1964. The second elevator is operational but not ideal for general usage as it is used for animal food and transferring primates (if the second one fails there is no back up plan).

Elevators generally have a 20-25 year life expectancy and we continue to have significant risk throughout campus.

After-Hours Calls (past 30-days)
(a subset of emergency calls)



Active Facilities-Related Insurance Claims (loss exceeding \$10K)

Event Date	Description	Estimated Facilities Cost	Facilities Repair Complete ¹	Estimated Completion Timeframe
Feb 5	Water main break caused flooding in the utility tunnels; extensive flooding in the lower level of ECB and steam damage to various other Engineering buildings	\$2.2M	64%	September
Mar 24	Fire caused by VoIP power supply overheating resulted in damage to Social Science building 4 th -floor office suite	\$18K	56%	July
Apr 20	Flooding caused by sewage pump malfunction resulted in small amount of water in the basement/lower level of Chamberlin Hall	\$25K	80%	July
Apr 26	Steam damage caused by a malfunctioning valve servicing the Dairy Barn (this is the second time this year – extensive line replacement needed)	\$30K	33%	July
May 3	Flooding caused by inoperable floor drain due to build-up of lime resulted in damage to spaces in SMI 5 th , 4 th , and 3 rd floors	\$20K	25%	August

¹ Example of repairs that may still need to be completed: replacement of steam line insulation in the utility tunnels

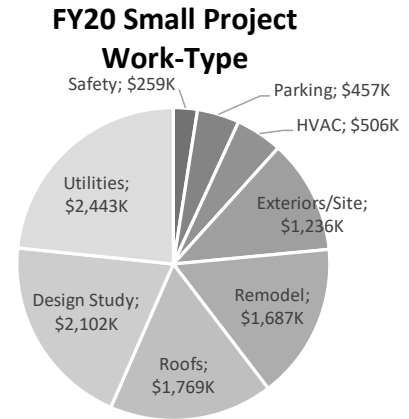
Enormous Success Identifying Critical Work and Obtaining State Funds

Contracted Repairs—FY20 Small Projects (greater than \$50K / less than \$300K)

Currently, we are managing 55 active projects; one FY20 project has been completed.

One of our FY20 initiatives/strategies was been to build capacity to aggressively pursue more projects and funding. So far, less than one year into the 19-21 biennium, UW-Madison has had 56 small projects approved; netting \$4.6M (35%) of the UWSA’s \$13.1M distribution to date.

In contrast, in the entire two year 17-19 biennium UW-Madison only had 55 small projects approved (mix of All Agency, PR and Agency Cash funding sources) totaling \$4.1M.



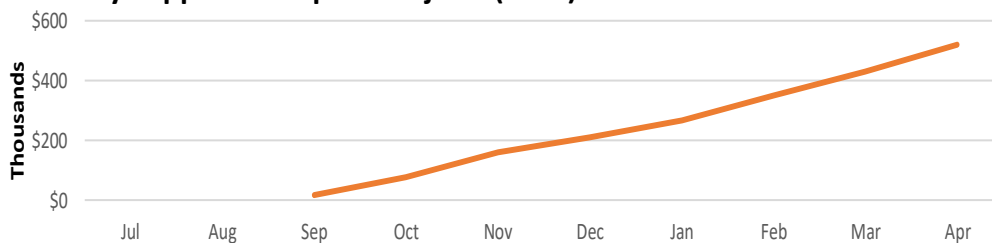
FY20 Small Project Funding Summary

Status	Number of Projects	State Funds	Agency (UW-Madison) Funds			Total Budget
		GPR	GPR	PR	Total Agency	
Pre-Design	11	\$94K	\$960K	\$497K	\$1,457K	\$1,551K
Design	36	\$3,133K	\$700K	\$3,221K	\$3,920K	\$7,054K
Bidding	4	\$1,101K	\$0K	\$93K	\$93K	\$1,194K
Construction	4	\$298K	\$93K	\$259K	\$352K	\$650K
Field Closed	1	\$0K	\$0K	\$11K	\$11K	\$11K
Grand Total	56	\$4,626K	\$1,753K	\$4,080K	\$5,833K	\$10,459K

Pursuing Reassignment of Work to Reduce the Burden Madison’s Facilities Funding

Capital Project Support: Another important endeavor for Physical Plant is our contribution to the success of capital projects. Based on data we began to collect last September, we provide an average of 574 labor hours monthly to support capital construction work, excluding management and planning efforts. On an annual basis, the work engages the equivalent of six full-time employees (\$800K) and includes a range of vital activities (e.g., coordinating and executing outages, fire alarm deactivations/activations, electronic access control, modifying plumbing systems, door hardware, utilities placement, and mechanical inspections).

Monthly Support to Capital Projects (FY20)



Adopting Best Practice to improve Infrastructure and Reduce Water Consumption

Innovation in Action: After weeks of operational planning, we will be initiating uni-directional flushing, starting at the beginning of June. This step-by-step process will include 58 events involving closing valves and using multiple hydrants to improve and control scouring velocities. Uni-directional flushing is a water-efficient method of cleaning water distribution pipes to improve water quality and restore capacity. This flushing scours out sediment, biofilm, corrosion products, and tuberculation.

26 Operationally Critical Projects Underway for Summer 2020 Construction

Summer 2020 in-house construction efforts are fully underway and rapidly making up for the time lost during the initial COVID-19 shutdown. This year projects were selected based on a collective effort that included representatives from SMPH, L&S, CALS, VCRGE, CoE, and School of Education. The ad-hoc team collaboratively prioritized projects and identified the ones that would have the greatest impact to the University's mission and benefitted from reduced summertime campus occupancy.

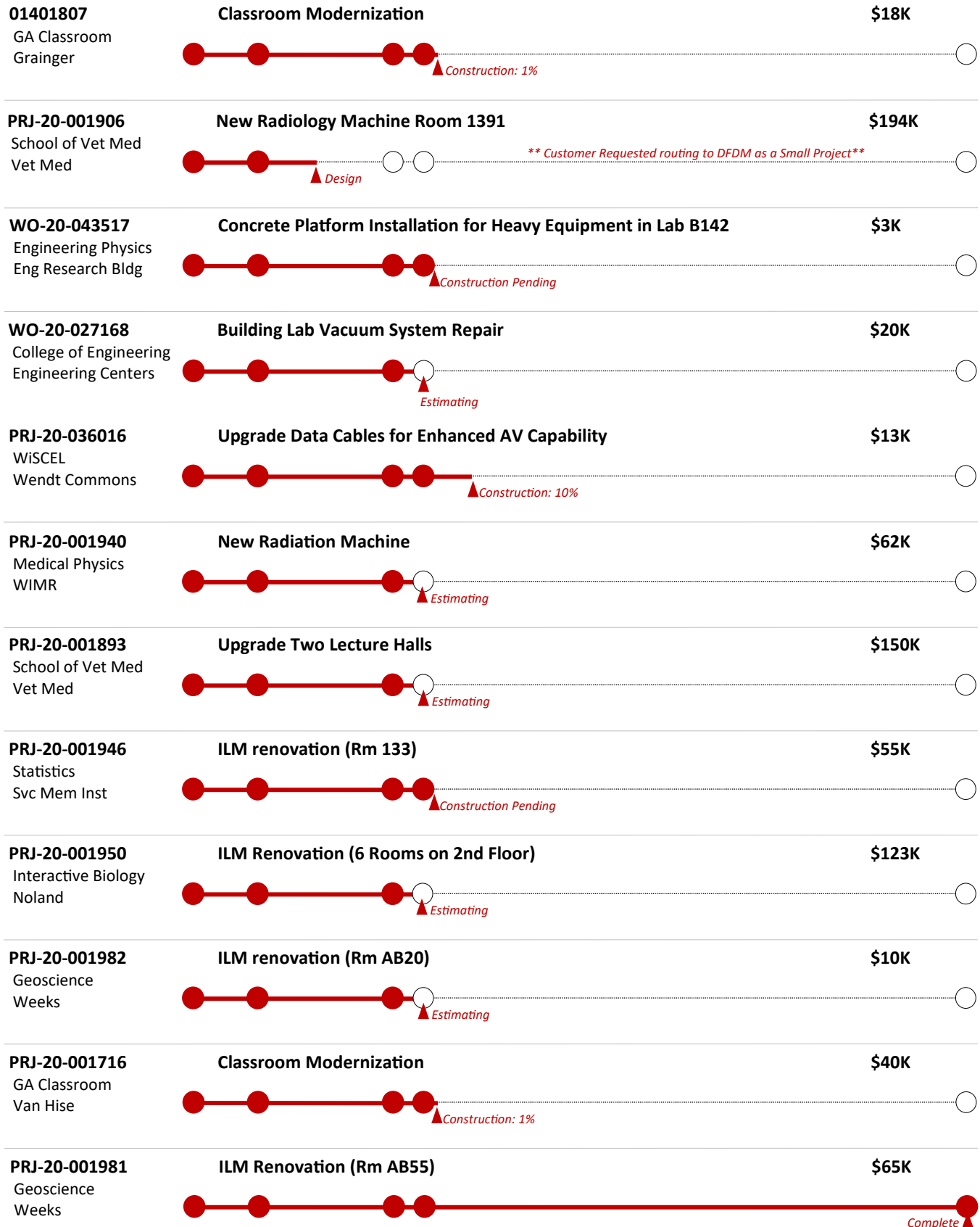
Key—Project Milestones / Progress

Projects generally follow a series of standard milestones as we work with the customer to clarify scope, design the details, conduct detailed work planning, order materials, and execute construction.

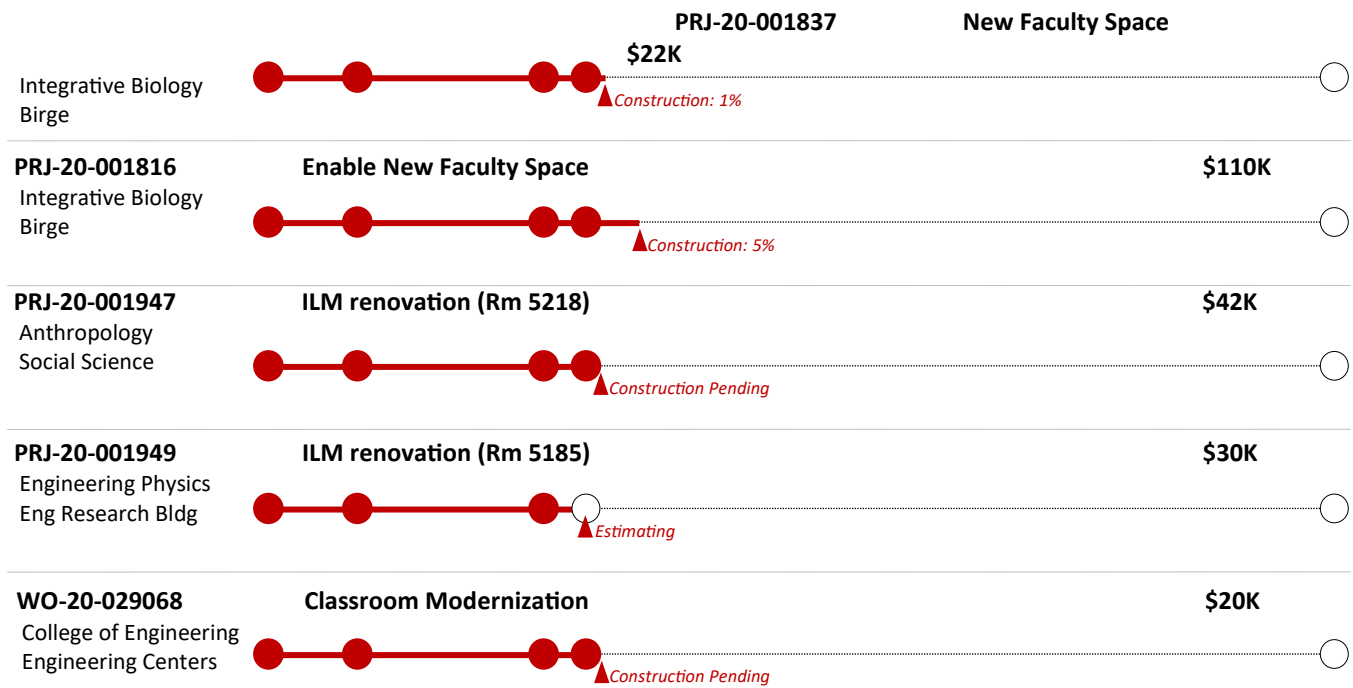


Project ID	Project Name	Location	Amount	Progress
PRJ-20-001087	Lab for Incoming PI	Chemical Engineering Engineering Hall	\$162K	Construction: 90%
PRJ-20-001082	Modernize Undergrad Instructional Lab	Elec & Computer Eng Engineering Hall	\$118K	Construction: 85%
05451905	Access Control and Renovation	WI Public Media Vilas Hall	\$141K	Construction: 45%
05451811	Labs and Office Renovation	Comm Arts Vilas Hall	\$86K	** Customer Cancelled Project after Design Completion**
PRJ-20-001248	Increase Door Width	Electrical Engineering Engineering Hall	\$18K	Construction Pending
PRJ-20-001873	Incoming PI (Rooms 710 and 734)	College of Engineering Eng Research Bldg	\$184K	Estimating
04691803	Instructional Laboratory Modernization (ILM) Renovation (Room 2451)	School of Music Humanities	\$40K	Estimating
PRJ-20-001857	Classroom Modernization	GA Classroom Grainger	\$28K	Construction: 5%
PRJ-20-001758	Classroom Modernization	GA Classroom Humanities	\$17K	Construction: 1%

Summer 2020 Projects *(continued)*



Summer 2020 Projects (continued)



Helium Plant Fully Operational, But Requires \$1.4M Resiliency Investment

Helium Program: After spiking in February, helium demand has dropped off, corresponding with the reduced research activity on campus.

- AirGas ended the “allocation,” that limited us ~2,000 liters per month. This is related to global reductions in demand and is expected to only be a temporary relief from the scarcity we have been experiencing.
- We recently completed a major repair and maintenance action for the liquefier. However, the system continues to operate with single points of failure at the liquefier and recovery compressor (a recommended and necessary investment in FY21 of approximately \$1.4M ***currently not funded***).

FY20 Helium Plant Operations

