While working on summer construction and renovation projects, Physical Plant is busy making preparations in support of the campus Smart Restart program. These preparations include conducting potable water system flushing; optimizing heating, air-conditioning, and ventilation (HVAC) systems; and modifying custodial procedures focusing on cleaning high-touch areas and constructing physical barriers.

MAJOR PROJECT HIGHLIGHTS

Animal Care: Heating Control Valves
Work is underway for December 2020 completion of assessment and replacement of 836 heating control valves across thirty-nine animal housing/holding rooms for the VCRGE and the All Campus Animal Planning and Advisory Committee (ACAPAC). This work will mitigate potential high temperatures.

Classroom Locking
Doors identified by UWPD are receiving upgraded door hardware. Upgrades provide internal classroom security locking capabilities in selected classrooms for enhanced protection in the event of an active threat situation.

- **Phase I:** (General Assignment Classrooms) 331 of 348 classrooms complete; the remaining classrooms have historic architecture, fire doors, existing electronic access control systems, or ongoing construction in-progress.

- **Phase II:** (Departmental, Housing, and Other Classrooms) 140 of these are complete or in progress and an additional eighty-five are being scheduled with the respective departments.

CAMPUS MAIL CONSOLIDATION

Physical Plant–Campus Services is working to improve efficiency of mail services across campus. This includes absorbing the bulk mail metering services currently performed by UW Extension Mail Services.

Campus Services runs the Campus Mail Department which delivers Interdepartmental mail to over 180 stops and US Mail to 47 campus stops. The addition of the former UW Extension mail service adds 800 new campus customers and 25 new stops. Reducing duplicate efforts and streamlining mail services will help improve operational efficiency and provide a one-stop shop for campus mail customers.
Physical Plant Utilities makes continuous operational improvements to achieve a more efficient use of energy and reduce overall consumption. At right is a look at year-over-year performance.

Adjusted for weather, UW–Madison has reduced campus energy consumption by 25 percent since fiscal year 2005. Measured as British thermal units per gross square foot (BTU/GSF), energy intensity is an industry measure used to track the efficiency of the campus as a whole while taking into consideration changes in campus size (new buildings being added) and changes in climatic conditions.

**Facilities Energy Report**

UW–Madison has reduced facilities energy consumption by 25% since FY05. This industry measure considers weather and changes in campus size.

**Arboretum: McKay Center Solar Array Installation**

Construction of a 24 kW photovoltaic (PV) system is underway for the McKay Center at the Arboretum.

Upon completion in late August, this PV system is projected to produce 32,300 kWh per year. This will lead to a savings of approximately $161,000 over its expected life.

Over the course of the system’s thirty-year life, the energy produced will offset 700 tons of carbon dioxide that would have otherwise been generated by conventional utilities.
Over the past two months, the design team and the planning and estimating teams made up significant lost time from the initial quarantine, COVID-19 response, and project construction pause.

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 on the university’s mission and would benefit from reduced summertime campus occupancy.

### Status Summary

<table>
<thead>
<tr>
<th>Status</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>0 (complete)</td>
</tr>
<tr>
<td>Estimating</td>
<td>0 (complete)</td>
</tr>
<tr>
<td>Construction</td>
<td>18</td>
</tr>
<tr>
<td>Substantially Complete</td>
<td>5</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>3</td>
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</tbody>
</table>

### Project Milestones / Progress

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

---

#### Labs and Office Renovation

**05451811**
Comm Arts
Vilas Hall

**Labs and Office Renovation**

**86K

**Customer Cancelled Project after Design Completion**

---

#### Increase Door Width

**05451905**
WI Public Media
Vilas Hall

**Access Control and Renovation**

**141K

**Construction: 80%**

---

#### Incoming PI ROOMS 710 & 734

**PRJ-20-001873**
College of Engineering
Eng Research Bldg

**Incoming PI ROOMS 710 & 734**

**184K


**Construction 20%**

---

#### Modernize Undergrad Instructional Lab

**PRJ-20-001082**
Elec & Computer Eng
Engineering Hall

**Modernize Undergrad Instructional Lab**

**118K

**Substantially Complete**

---

#### Lab for Incoming PI

**PRJ-20-001087**
Chemical Engineering
Engineering Hall

**Lab for Incoming PI**

**162K

**Substantially Complete**

---

**SUMMER 2020 PROJECT STATUS**

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**KEY**

**Project Milestones / Progress**

Projects generally follow a series of standard milestones as we work with the customer to clarify scope, design, and the details; and conduct detailed work planning, order materials, and execute construction.
<table>
<thead>
<tr>
<th>Project ID</th>
<th>Project Description</th>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>04691803</td>
<td>Instructional Laboratory Modernization (ILM) Renovation (Room 2451)</td>
<td>$40K</td>
<td>30%</td>
</tr>
<tr>
<td>PRJ-20-001857</td>
<td>Classroom Modernization</td>
<td>$28K</td>
<td>1%</td>
</tr>
<tr>
<td>PRJ-20-001758</td>
<td>Classroom Modernization</td>
<td>$17K</td>
<td>1%</td>
</tr>
<tr>
<td>01401807</td>
<td>Classroom Modernization</td>
<td>$18K</td>
<td>99%</td>
</tr>
<tr>
<td>PRJ-20-001906</td>
<td>New Radiology Machine Room 1391</td>
<td>$194K</td>
<td>20%</td>
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<tr>
<td>WO-20-043517</td>
<td>Concrete Platform Installation for Heavy Equipment in Lab B142</td>
<td>$3K</td>
<td>0%</td>
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<tr>
<td>WO-20-027168</td>
<td>Building Lab Vacuum System Repair</td>
<td>$20K</td>
<td>0%</td>
</tr>
<tr>
<td>WO-20-036016</td>
<td>Upgrade Data Cables for Enhanced AV Capability</td>
<td>$13K</td>
<td>10%</td>
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<tr>
<td>PRJ-20-001940</td>
<td>New Radiation Machine</td>
<td>$62K</td>
<td>0%</td>
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<tr>
<td>PRJ-20-001893</td>
<td>Upgrade Two Lecture Halls</td>
<td>$150K</td>
<td>20%</td>
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<tr>
<td>PRJ-20-001946</td>
<td>ILM Renovation (Rm 133)</td>
<td>$55K</td>
<td>75%</td>
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<tr>
<td>PRJ-20-001950</td>
<td>ILM Renovation (Six Rooms on Second Floor)</td>
<td>$123K</td>
<td>25%</td>
</tr>
</tbody>
</table>
SUMMER 2020 PROJECT STATUS (cont.)

PRJ-20-001982  ILM Renovation (Rm AB20)  $10K
Geoscience
Weeks
Construction: 90%

PRJ-20-001716  Classroom Modernization  $40K
GA Classroom
Van Hise
Δ Construction: 65%

PRJ-20-001981  ILM Renovation (Rm AB55)  $65K
Geoscience
Weeks
Substantially Complete

PRJ-20-001837  New Faculty Space  $22K
Integrative Biology
Birge
Δ Construction: 60%

PRJ-20-001816  Enable New Faculty Space  $110K
Integrative Biology
Birge
Δ Construction: 55%

PRJ-20-001947  ILM Renovation (Rm 5218)  $42K
Anthropology
Social Science
Construction: 95%

PRJ-20-001949  ILM Renovation (Rm 5185)  $30K
Engineering Physics
Eng Research Bldg
Δ Construction Pending; Starts 7/03

WO-20-029068  Classroom Modernization  $20K
College of Engineering
Engineering Centers
Δ Construction 45%

ADDITIONAL PROJECTS COMPLETED DURING JUNE 2020

Twenty-one projects (worth $1M) reached substantial completion over the past month.

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Building</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>00331901</td>
<td>Bock Laboratories</td>
<td>Renovations for New Microscope</td>
<td>$90K</td>
</tr>
<tr>
<td>PRJ-20-001091</td>
<td>Bascom Hall</td>
<td>Room Renovation</td>
<td>$14K</td>
</tr>
<tr>
<td>PRJ-20-001119</td>
<td>Chamberlin Hall</td>
<td>Install Dropped Ceiling with Lights</td>
<td>$29K</td>
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<tr>
<td>01021901</td>
<td>Henry Mall</td>
<td>Classroom Remodel</td>
<td>$103K</td>
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<tr>
<td>PRJ-20-001252</td>
<td>Grainger Hall</td>
<td>New Glass Doors</td>
<td>$9K</td>
</tr>
</tbody>
</table>
Four additional contracted repair projects were approved this month and received State funding. This includes the emergency elevator repair project for the Primate Center that was highlighted last month. As illustrated below, our team has been extremely successful in developing and negotiating with UWSA and DFDM for these projects. There is significant work ahead to coordinate the construction efforts.

**Contracted Repair Projects**

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Building</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>01541902</td>
<td>Educational Science</td>
<td>Suite Remodel</td>
<td>$9K</td>
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<tr>
<td>01541901</td>
<td>Educational Science</td>
<td>Renovate Multiple Rooms</td>
<td>$22K</td>
</tr>
<tr>
<td>01561901</td>
<td>Atmospheric, Oceanic, Space Science</td>
<td>HVAC Upgrades</td>
<td>$41K</td>
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<tr>
<td>PRJ-20-001093</td>
<td>Engineering Hall</td>
<td>Lab Remodel</td>
<td>$155K</td>
</tr>
<tr>
<td>PRJ-20-001136</td>
<td>Medical Science Center</td>
<td>HVAC Upgrades</td>
<td>$15K</td>
</tr>
<tr>
<td>PRJ-20-001657</td>
<td>Medical Science Center</td>
<td>Room Renovation</td>
<td>$62K</td>
</tr>
<tr>
<td>PRJ-20-001758</td>
<td>Humanities Building</td>
<td>Lighting Upgrades</td>
<td>$17K</td>
</tr>
<tr>
<td>04811903</td>
<td>Engineering Centers Building</td>
<td>Stair Upgrades</td>
<td>$12K</td>
</tr>
<tr>
<td>PRJ-20-001369</td>
<td>Weeks Hall</td>
<td>Lab Remodel</td>
<td>$29K</td>
</tr>
<tr>
<td>PRJ-20-001982</td>
<td>Weeks Hall</td>
<td>Room Remodel</td>
<td>$10K</td>
</tr>
<tr>
<td>02121901</td>
<td>Wisconsin Institute for Discovery</td>
<td>Lab Remodel</td>
<td>$45K</td>
</tr>
<tr>
<td>PRJ-20-001134</td>
<td>Engineering Research</td>
<td>Lab Renovations</td>
<td>$18K</td>
</tr>
<tr>
<td>05451815</td>
<td>Vilas Communication Hall</td>
<td>Room Renovations</td>
<td>$135K</td>
</tr>
</tbody>
</table>

**Total Approved Construction Service Agreement (Final Amount TBD)** $814K

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**CONTRACTED REPAIRS**

Four additional contracted repair projects were approved this month and received State funding. This includes the emergency elevator repair project for the Primate Center that was highlighted last month. As illustrated below, our team has been extremely successful in developing and negotiating with UWSA and DFDM for these projects. There is significant work ahead to coordinate the construction efforts.
UNEXPECTED: BREAKDOWNS

Chilled Water Outage

A chilled water outage caused by a construction contractor that drilled into a 42-inch chilled water line affected west central campus. The team quickly identified critical animal care centers and placed interim equipment to assist the contingency contractor with the placement of temporary chillers (pictured right) at eight buildings while identifying a repair strategy.

Flooding in Science Hall

Science Hall experienced flooding on June 10 due to a sewer backup, resulting in a new insurance claim of approximately $30,000. The backup occurred due to an antiquated air-conditioning system that is building up lime in the pipes, significantly impacting the system’s ability to handle the water flow.

Cooling in Environment, Health & Safety Building

The HVAC system at the Environmental Protection & Safety Building continues to provide insufficient cooling. A combination of aging equipment and increased building occupation have progressively decreased the ability to provide adequate cooling. A long-term solution to switch the building to campus chilled water is in development. Physical Plant is working many "band-aid" solutions to keep the system nominally adequate.