# Facilities & Property Management Education and Community Engagement 2017-18







# **Engaging with Academics**

### GIS Landscape Inventory Phases 1 & 2 | FPM Landscaping

FPM's Landscaping supervisor worked with a student and professor from the GIS graduate certificate to develop a method to map plants in the landscaping beds with GIS technology. This was the first attempt at gathering this useful information about PSU's campus. *Living Lab* 

# KMC Indoor Environmental Quality Assessment | FPM Education Program

With assistance from the FPM Education Coordinator and Building Maintenance staff, an architecture student working on their Honor's College undergraduate thesis conducted an assessment of the indoor environmental quality, a critical component of a healthy learning environment, for the addition to the Karl Miller Center that hosts a passive ventilation system. *Living Lab* 

# Space Survey Web Application | FPM IT & Campus Planning

Staff with FPM IT and Campus Planning are collaborating with an FPM student staff member, who is completing their masters in Engineering and Technology Management, to develop a web application to assist with the campus Space Survey. The web application will streamline the Space Survey process for faculty and staff and will increase the accuracy and reliability of the data.

# Emergency Wells | FPM Systems Services, Director's Office & Emergency Management

FPM's Director and Systems Services Manager worked with the Emergency Management Director to sponsor a civil engineering capstone project, which analyzed the wells at PSU to inform design recommendations for a back-up well system on campus. The back-up system would provide a source of potable and accessible water after the major Cascadia seismic event. *Living Lab* 

# Rammed Earth Wall Follow Up | Building Maintenance & Education Program

The Rammed Earth project continued with a student and faculty researching the wall's structural integrity. The research is testing the viability of this sustainable building material in Portland's climate and is an example of hands-on learning that will exist on campus for years. *Living Lab* 

#### Greenroof Research & Engagement | FPM Landscaping

Landscaping has continued to support research on the Cramer Hall and Broadway greenroofs. This summer, an Honor's College student is conducting research on growing spinach on greenroofs for their undergraduate thesis and our student and faculty greenroof experts are continuing a project to research invasive grass management strategies on the Broadway roof. The greenroofs are one of PSU's most visible and valuable assets that are being leveraged for learning and research.

# Birds! | FPM Education Program, Building Maintenance & Campus Sustainability

Biology students and faculty designed and completed a survey of the bird species and their abundance on campus in relation to vegetation cover. This project helped to provide an initial understanding of avian habitat on campus and will contribute to upholding PSU's institutional commitments to environmental sustainability. *Living Lab* 

#### Floating Bus Island | Transportation & Parking

In addition to FPM projects, the FPM Education Coordinator helped to facilitate a civil engineering capstone sponsored by Transportation and Parking, in which students designed a "floating bus island" that considered bike, pedestrian, and vehicle traffic when consolidating two existing bus stops on SW Broadway at the PSU campus. The results of this project will be leveraged to further this work in partnership with Tri-Met and the Portland Bureau of Transportation. *Living Lab* 



# Campus + Community Engagement

#### Living Lab Collaboration

The FPM Education Coordinator continued to participate as a part of the Living Lab Program's management team, including facilitating student projects and contributing to program support and outreach.

#### ASHRAE Partnership

FPM partnered with the local ASHRAE chapter to provide quarterly educational field trips of PSU buildings for student and professional members.

#### Landscape Volunteer Projects

The FPM Education Coordinator began working with the Landscaping Supervisor to develop a process for hosting volunteer groups. Landscaping hosted two volunteer activities in the spring, one in partnership with the Student Community Engagement Center's Earth Day of Service event and one with a freshman inquiry course.

#### Karl Miller Center (KMC) Engagement

In addition to supporting the above mentioned KMC thesis project, FPM staff are involved in directing the two Living Lab Green Building summer interns, who are further studying the new passive ventilation system. The work done in both projects supports PSU's ongoing efforts to ensure that the facility supports instructional needs and a healthy learning environment.

#### **SRTC Cooling Project Lives On**

Last year, students in a mechanical engineering capstone created a conceptual design of a stand alone cooling system for part of SRTC. Currently, the 216K square foot building is cooled to match the needs of a small number of labs; by creating a stand alone HVAC system for these rooms, the energy consumption of the building will be greatly reduced, contributing to PSU's sustainability goals. This project is being continued by professional engineers and designers through Capital Projects & Construction.

#### **Living Lab Process Improvements**

The Living Lab team continued to improve their project development and scoping process, which allowed for projects, such as the KMC interns and SRTC capstone, to better serve staff needs and to support sustainability efforts on campus.

#### **Cultural Climate Survey Progress**

The FPM Education Coordinator and other members of the survey working group collaborated with the PSU Survey Research Lab for direction on how to analyze the data collected in the 2017 Cultural Climate Survey. A group of staff came together to collaboratively interpret the results and a report-out that includes the group's perspectives is currently being drafted.

