SOLAR FARM 2.0: Powering Up with Agility and Perseverance

Photos courtesy of Jim Baltz
A MESSAGE FROM THE Executive Director

I recently addressed our more than 1,300 employees in a virtual All-Employee Meeting video presentation, allowing all F&S staff, including divisional leaders and myself, the opportunity to look back on a year in which we played an integral role in COVID-19 response efforts. In the most trying of times, our organization has helped support the university during the academic calendar by finding innovative and creative ways to implement health and safety standards throughout our buildings and on our grounds.

The pandemic has been a tremendous burden on all of us, but F&S has cultivated the opportunity in an ever-changing social and professional landscape with agility and perseverance.

There are many ways F&S remains focused on continuing to help teams, units, and departments ensure safety and health across campus. Cleaning and disinfecting is at the heart of our front-line work; our Health and Safety Response Team (HSRT) helps figure out social distancing in classrooms and workspaces, as well as evaluates and upgrades HVAC systems; our Central Stores stocks cleaning supplies for purchase; and a return-to-work training module was created.

Continue to stay safe and healthy. F&S is here for you and provides assistance whenever needed.

Sincerely,

Dr. Mohamed Attalla, Ph.D., MBA, P.Eng.
Executive Director, Facilities & Services

Watching Waste

The F&S Waste Management department provides campuswide recycling and waste hauling, with an aim to continuously reduce the total volume of waste being sent to a landfill. The Illinois Climate Action Plan (iCAP) sets a vision of Zero Waste for campus, and the State Waste Reduction Plan provides a five-year plan for continuing to reduce total landfill waste.

There are more than 3,000 recycling bins in campus buildings for paper, plastic bottles #1&2 (including milk jugs), and aluminum cans. Recyclables collected from campus are manually sorted and deposited in storage bins, then compressed into large bales; campus diverts about 30% of its waste from landfills.

If you need to request a bin or container or have questions about other services email recycling@illinois.edu or call 217-244-7283.

Driving Change During COVID

The response to the COVID-19 pandemic has presented the university and F&S with opportunities to help establish methods for decreasing community spread. In this role, F&S drivers have become a linchpin to the testing ecosystem on campus.

Drivers have become an essential cog in the university’s COVID pandemic response. The group includes those who pick up tests from all campus sites, totaling more than 1.5 million (and more every day) since testing started. There are also drivers for those who need quarantine or isolation shuttles.

Positive COVID tests are an unfortunate reminder that the pandemic remains. Those Illinois students, faculty, and staff who contract the disease can help others, though, by participating in a National Institutes of Health (NIH) study. The drivers are back again, this time to pick up the samples and deliver them to the research team each day.

Study participants self-administer tests in two different forms, both through nasal and saliva sampling, thanks to drivers, who deliver enough kits for up to 14 days.

“The NIH study can’t happen without drivers. We recognize this responsibility and are so happy to help the campus address this larger public health initiative,” said Pete Varney, associate director of Operations, Maintenance & Alterations, Transportation & Automotive Services.

UI students, faculty, or staff who are at least 18 who test positive or are identified as contacts in the ongoing SARS-CoV-2 screening program and enter isolation (positive test) or quarantine (contacts) per protocol can participate in this study. Participants can be symptomatic or asymptomatic at the time of enrollment.

Additionally, participants must:
• have a negative test in the campus COVID-19 testing program within seven days of enrollment.
• have a mobile device or access to the internet.
• download an app specifically for this study.
• be available in isolation/quarantine on or near campus for at least 14 days following their initial positive result or designation as a contact.

If you have questions about the study, contact: coviddetect@illinois.edu or 217-300-2806.

“The NIH study can’t happen without drivers. We recognize this responsibility and are so happy to help the campus address this larger public health initiative.”

Pete Varney, associate director of Operations, Maintenance & Alterations, Transportation & Automotive Services.
The Service Office: Leveraging the COVID Opportunity

F&S performs essential, daily work across the entire Urbana campus, repairs equipment or building systems as needed, and maintains integral relationships with students, faculty, and staff. Most of that work is generated from one place: the Service Office.

This ordinary office space filled with computers and telephones is home to an extraordinary effort that enables customers to quickly and securely get answers and actions from their questions and needs.

Service office support associates work the phone lines and track email and online requests.

Often, customers call in for a new service request, or to ask for updates on that project. Other times, campus customers may need to ask about more complex issues such as starting a capital project or questions about making decisions to positively impact energy sustainability. Of course, since March, those calls have come into the office about recommended protocols for HVAC systems or spacing out classroom instruction desks and anything else related to the response to the COVID-19 pandemic.

"Most of the calls coming in can be routed quickly," said Jerry Dinnin, Service Office supervisor.

"For instance, when snow hits campus, we know we’ll get calls about areas outside of buildings with persistent ice and snow. But on other, less common topics, our team works daily to ensure that the other calls and requests can get to experts as soon as possible."

The office’s reliability is another strength. The office has remained open throughout the pandemic, just adding safety and health protocols to their space: large plexiglass barriers, more closed doors, and behavioral recommendations from the Centers for Disease Control and Prevention (CDC) allowed the team to continue to support campus service requests.

"I’m proud of how our team has stepped up during a very difficult time," said Dinnin. "The calls, emails, and requests from campus are each individually important and we want to please our customers. I feel like we’ve accomplished that."

As the first point of contact, the Service Office is ready to help leverage the experience and capabilities of F&S departments. The Service Office can assist with general customer inquiries by quickly routing questions to subject matter experts within F&S, whether a building service worker, carpenter, or project manager.

In the case of an urgent event, like a gas leak affecting multiple locations, the Service Office will quickly notify building and facility managers and other members on campus to inform them of any updates.

"Our Service Office is an essential team for all of F&S and campus," said Curt Taylor, director of Shared Administrative Services. "They provide vital communications and routing each business day in a professional manner."

Physical Plant Service Building, Room 147c  217-333-0340  fsserviceoffice@illinois.edu  my.fs.illinois.edu

Although the Service Office staff is mostly in-person, sometimes workers complete their work virtually, as many now do across campus.
Appearing in the Post

Illinois associate professor of journalism Charles “Stretch” Ledford produced a photo series of the university’s response to the COVID-19 pandemic for The Washington Post. One photo featured F&S painter Ricky Pierce (right) as he applied socially-distanced stickers to a classroom floor in Gregory Hall.

F&S helped coordinate access for Ledford to document some of the organization’s COVID-19 response on campus as the university prepared for the return of on-site instruction for the fall semester.

“COVID-19 was the biggest story in the world at that time, and we were all learning to adapt to our new reality. Preparing an institution the size of the U of I for in-person learning was, and continues to be, a task of herculean proportions. But it’s an effort made up of smaller, individual efforts by many, many people. I wanted to cover the macro by photographing the micro.”


“I noticed the stickers Mr. Pierce was working with and realized they would identify the University of Illinois as where this was happening. So this particular image not only shows the work being done, it provides viewers with a sense of place. I shot about 750 photographs in the couple of hours I was with Mr. Pierce and his co-workers… this little moment is a keeper.”

Charles “Stretch” Ledford, University of Illinois associate professor of journalism
Q & A with
Rob Roman, director of Utilities & Energy Services

You began your new position with F&S around the time COVID measures went into place. What has that been like for you and the entire Utilities & Energy Services (UES) department?

This is a whole new world for all of us. I was looking forward to being able to tour the shops, meet the staff, shake hands, and see the work being done. But, because of the COVID situation, I can’t. I am hopeful that the staff understands that I have practiced social distancing out of respect for them and their families. There is a lot of great work being done at Illinois. When I get the opportunity, I look forward to getting out into the field more thoroughly and see what’s going on.

Why did you want to work at the U of I, compared to somewhere else?

Through my many years in the energy industry, I have found that the University of Illinois has some of the most professional crews in the business. I look forward to the opportunity to work alongside the F&S staff to help the university achieve its core goals of education and research. This job also provides the opportunity to be involved with the new technologies in the industry, and even allows us to be a part of research projects that have the potential to change the industry, like a carbon capture study currently underway.

What in your past makes you excited for your future here?

It’s good to be back home! As many already know, I worked at UIUC before, starting at Abbott Power Plant and working in Utilities Administration. I really enjoyed my time working at the University of Illinois at Chicago as well. Working at the Chicago campus allowed me to still work with the UIUC staff on system-wide initiatives. It is good to have the chance to return to the Urbana campus with different experiences and perspectives gained at the University of Illinois at Chicago. On a personal note, even when working in Chicago, I maintained my principal residence in central Illinois at Chicago. On a personal note, even when working in Chicago, I maintained my principal residence in central Illinois. So, again I say, it’s good to be back home!

What are some of the high-visibility items you hope to accomplish while at F&S?

To continue many of the great practices and initiatives that my predecessor and colleague, Kent Reifsteck, started during his tenure. We will continue to work as a team to find new ways to help the university manage their energy production and use in the best manner possible. We will continue, and hopefully enhance, the energy savings program opportunities and continue to implement the energy production efficiencies at Abbott Power Plant and our renewable assets.

What’s the biggest challenge for you and your division?

COVID! It has impacted all of us. I recognize that it is not just the UES division. It is our whole community. We have seen co-workers and families impacted so much by this virus. It has changed how we do our everyday activities, our work, our off time, our relationships. It has also impacted our university budgets. Yet, I am confident that we will continue to work together and work through this pandemic and be all the stronger for it.

Robert Roman brings more than 30 years of industry and higher education experience to the role of director of UES. Roman leads all aspects of utilities production and distribution, energy management and conservation measures, temperature control systems, energy performance contracting, and business operations.

Roman worked on campus from 2006 to 2012 as the chief utility plant operating engineer at Abbott Power Plant, then as director of resources for Utilities Administration, providing project planning support for the University of Illinois System and acting as a legislative affairs liaison for utilities infrastructure and investment matters.

Collaboration Is Key

Jim Sims, director of Engineering & Construction Services, has a strong desire to serve the campus community. Recently, Sims taught architecture students about the importance of working with structural engineers in the design phase and choosing appropriate building materials.

Sims, who spent 13 years at a private structural engineering firm in Chicago before coming to F&S, guest lectured for Architecture S36: Planning and Design of Structural Systems taught by Sudarshan Krishnan, Ph.D., assistant professor, structures in the School of Architecture.

When offered the chance to get in front of Illinois students for the first time, Sims did not hesitate. “With the students, it really is about giving back,” said Sims. “I just want to play a role in the education of the future of our country, the future alumni of the U of I. I want them to be world changers in whatever field they’re headed toward. You can be a great architect, and part of that is working together with engineers. I wanted to open some eyes for them for the rest of their career on one little component of how they can be successful.”

Krishnan was thrilled at the students’ response to Sims’ presentation. “Jim delivered an engaging talk, and students benefitted greatly from his first-hand experiences,” said Krishnan. “As an articulate storyteller, Jim made us see through photos of different buildings in their contexts and circumstances, and provided useful structural insights.”

The main point of his presentation was: architect and engineer collaboration is key. Just as that relationship is instrumental in success, Krishnan expects more academic partnerships between F&S experts in a wide variety of fields and other units on campus.

“I think it would be natural for some units in the College of Fine & Applied Arts and the Grainger College of Engineering to tap into this rich expertise that is readily available. Just like Jim Sims delivered a guest lecture to my class, other experts at F&S could play a useful role in courses related to planning, design, engineering, construction, and sustainability.”

Sudarshan Krishnan, assistant professor, structures, School of Architecture

Learn more at: https://fs.illinois.edu/services/academic-collaborations
POWER PRODUCTION...

Solar Farm 2.0

The new solar array, located just south of the Urbana campus, began energy production at the end of January 2021. The latest addition to the university’s energy portfolio added more than 20,000 megawatt-hours per year (MWh/year) of renewable energy, more than tripling sustainable power output.

Throughout installation of the array, the Waste Transfer Station worked with the contractors to collect and process all the materials so everything that can be recycled was recycled. More than 90 percent of all the packaging and installation related materials was recycled through this collaboration with F&S. Recyclable items included cardboard, scrap metal, wooden pallets, and other construction and demolition materials.

As a part of the project, the Waste Transfer Station was able to divert more than 90% of that from the landfill to be recycled.

“Solar Farm 2.0 addresses many sustainability goals as part of the Illinois Climate Action Plan (iCAP),” said Morgan White, associate director for Sustainability. “Every aspect of this project matters, including the energy production from the sun-tracking panels, the installation of pollinator-friendly plantings, and the diversion of construction waste.”

Geothermal Energy

F&S, the Institute for Sustainability, Energy, and Environment (iSEE), and the Illinois Water Resources Center formed the new Illinois Geothermal Coalition (IGC) with the goal of making the university a leader in geothermal energy research and achieving iCAP goals. This coalition will work together to strengthen and advance the implementation and design of geothermal energy systems in the Midwest, which will establish the university as a leader in geothermal energy and renewable energy innovation.

Additionally, the IGC will help in developing policies for integrating groundwater and geothermal systems within the campus energy mix, including the impact of geothermal systems in energy generation and storage on campus energy management.

“How does geothermal energy work?

Hundreds, or even thousands of feet under the earth’s crust, the temperature is warmer than it is on the surface. So, geothermal energy rods and plumbing reach deep down into the earth, gather the warmth radiating from the earth’s 10,000° F core.

Pump systems either transfer the heat into the home or building, or pump the heat out from a building in order to cool it.
Many of the iconic buildings and design elements on campus feature brick supporting structures and design. The brick is often more than 100 years old, sometimes needing repairs or replacement after all those icy cold nights and blisteringly sunny days. Eric Quinley, brickmason foreperson, says the shop acts quickly, finding leaks and re-caulking cap stones or cracks.

Brickmasons aren’t just limited to the “University Blend” style bricks—mostly red with some darker “smokers”—used on older, iconic buildings throughout the Urbana campus. Quinley said the shop commonly uses concrete, limestone, granite, flagstone, and even pre-cast concrete stone.

The shop maintains and repairs ceramic tile floors, walls, terrazzo, and patches or repairs pavers. One example of recent work of this manner is at Graziano Plaza, between Everitt Laboratory and Engineering Hall. Thousands of students walk through the court, as the corridor connects the Bardeen Quad to Green Street. The design of the plaza has improved pedestrian safety and wayfinding to a new sheltered bus stop, the Illini Union, and Main Quad. During much of the Fall 2020 semester, the plaza became a COVID-19 testing site.

“This was a nice project to showcase our abilities,” said Quinley. “The professionals in our shop did a great job making that plaza really come together. We rely on our attention to detail. It’s real easy to get something out of level or out of plumb, or to have irregular size joints in a brick wall or tile floor.” At Graziano Plaza, and across the Illinois campus, brickmasons ensure everything is in place and level.