



FACILITIES & REAL ESTATE SERVICES FY21 ANNUAL REPORT

A Look Back at our Achievements in an Unprecedented Year

MISSION/VISION

MISSION

Facilities and Real Estate Services, as stewards of Penn's physical environment, strives to provide innovative and cost-effective solutions that embrace our rich past and enhance the quality of the University's living and learning experience.

VISION

Collaborating for a sustainable tomorrow.

DIVISIONAL OVERVIEW

The University of Pennsylvania's Division of Facilities and Real Estate Services works with Penn's schools and centers to support the University's physical infrastructure. We work hard to provide valuable information and services to the students, faculty, staff, alumni, and vendors of Penn. Under the direction of the Sr. Vice President, the Division provides the expertise, business processes, policies and standards required to plan, design, construct, operate, maintain and renew the physical assets of the University.



THE POWER OF PENN

Welcome to the Facilities & Real Estate Services FY21 Annual Report, an opportunity to reflect on a year where our team members exhibited resiliency amid continued challenges and a gradual return to some normalcy. Throughout the past year, as the nature of the pandemic shifted and vaccines became widely available, Facilities & Real Estate adapted once again, working to ensure a safe campus environment for the return of in-person students, faculty, and staff, while continually advancing major ongoing initiatives and projects.

Through our collaborative efforts, we have created new campus spaces and renovated and maintained existing ones that inspire learning, foster innovation, enrich the student and work experience, and serve the neighborhood. Much of our work is cyclical around an academic year, as new buildings are built, existing spaces are maintained or renovated, and students move in and out. While these past 18 months have challenged all of us to adjust and adapt the way we work, the transformation and advancement of our campus has continued without significant impact, and that is something we can all take pride in as stewards of this beautiful campus.

We have recognized the great diversity of our community and the value that each member brings with different perspectives and assets, making our vision become a reality towards a unified and connected university life. I am extremely grateful for the extraordinary efforts of all of my colleagues as we navigated through unusual times while supporting a safe, dynamic and inspiring sense of place where we can all coexist, connect, and thrive. We should all celebrate how far we have come as a community and the impactful role each of us has played. With new goals, new challenges, and new opportunities ahead in this living, learning, and working environment, we progress together.

Sincerely,

Anne Papageorge

Sr. Vice President—Facilities & Real Estate Services



FINANCE & ADMINISTRATION

The Administration department is responsible for Finance and Business Planning, Information Technology, and Human Resources. Responsibilities include management of the capital planning and approval process for the University, financial planning and analysis, evaluation of accounting treatments for our real estate and development transactions, payroll, purchasing transactions, and capital accounting for design and construction projects. The Department also supports the Division's technology needs, recruitment, and human resource functions.

Chaz Howard



PROFESSIONAL DEVELOPMENT AND TRAINING

Beginning in March 2020, FRES's Information Technology team hosted frequent virtual **“Snack and Learn”** sessions covering useful technology topics to assist staff with the transition to remote and hybrid work. Topics for these sessions included advanced tips for using Zoom, Adobe, and many more. All Snack and Learn presentations remain accessible on the [FRES IT Help Desk](#).

The FRES **New Employee Orientation** process added a virtual component in the spring of 2021, enabling new employees to more quickly “meet” FRES Leadership as close as possible to the start of their employment and while still working remotely. As staff return to the office, after a virtual welcome and training session, new employees are able to attend in-person meet and greets with FRES leadership.

A new presentation is available on the [FRES Intranet](#), *FRES Procurement Basics: Basic Principles for Buying and Contracting in Operations and Maintenance*. This presentation outlines the types of O&M procurements and contracts, the general O&M maintenance contract process, and the system for purchase order approvals, among other topics.

All essential personnel, including union staff and FRES O&M supervisory and management staff, went through **COVID-19 training** in FY21. Presented via Knowledge Link, this training reinforced the safety and social distancing protocols established at the beginning of the pandemic. As protocols changed, additional guidance was provided via text and or e-mail.

INFORMATION TECHNOLOGY

The FRES IT team took on the communications challenge of orchestrating a Pennkey and password update while many staff worked remotely, in order to keep work and information secure. Additionally, they helped reconfigure FRES's office space, moving computers and phones so that desks were compliant with social distancing guidelines, and all staff technology needs were met.

In FY21, representatives from FRES O&M, Sustainability, IT and Finance & Administration developed a proposal that was accepted by the Wharton Undergraduate Data Analytics Club (WUDAC), to visualize work order activity and cost by building over time. The group developed a series of heat maps and a model that we have been able to use to extend the use of data analytics in FRES.

COVID-19 Training



Robert Lundgren



FRES STAFF RECOGNITION

FRES staff members Victoria Iannotta and Dana Pinckney were both honored as 2021 Models of Excellence in the *Sustaining Penn Through COVID-19* category. The Models of Excellence Award program celebrates the extraordinary achievements of full- and part-time staff across the University's schools and centers. FRES is very grateful to them, as well as those recognized in the annual Years of Service Recognition, for going above and beyond with notable and impactful work for Penn.

This past year, four FRES staff members celebrated 40 year milestones.

- Mark Henry (Operations & Maintenance)
- Robert Lundgren (Office of the University Architect)
- Beverly Norman (Operations & Maintenance)
- Kelton Norman (Operations & Maintenance)

FRES Women's Group



EMPLOYEE ENGAGEMENT

The **FRES Annual Update Meeting** was held virtually in Summer 2021, with Vice President Anne Papageorge meeting with and presenting to each department separately. The FRES staff event was rescheduled to September, anticipating the return of the majority for FRES staff to campus and the ability to gather safely together. The presentation is available on the FRES Intranet.

The **FRES Women's Group** programming continued throughout the remote work period, with virtual brown bag lunches open to all women of FRES. Topics included honoring the late Ruth Bader Ginsburg, focusing on self-care in the midst of the pandemic, and sharing personal stories and professional accomplishments from various women at FRES. Speakers included Dr.

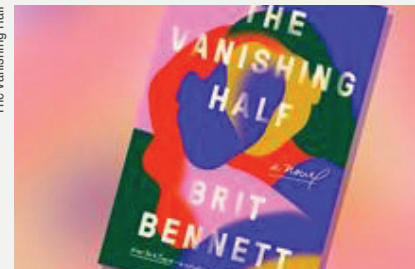
Raina Merchant, a professor of Emergency Medicine at the Perelman School of Medicine, Lila Bhide, the coordinator of the Penn Food and Wellness Collaborative, and Leah Seppanen Anderson, ED, Stavros Niarchos Foundation (SNF) Paideia Program and Member of Penn's Year of Civic Engagement Steering Committee.

FRES Virtual Winter Holiday Celebration



In December 2020, FRES staff came together for a **Virtual Winter Holiday Party** that featured festive games and music, a raffle, and even a vocal performance. In addition, HR planned a virtual holiday wine tasting, featuring a sommelier who instructed participating staff how to taste two different wines.

The Vanishing Half



Another way FRES staff remained engaged and connected was the revival of the **FRES Book Club** in March 2021. The first book the group discussed was *The Vanishing Half*, by Brit Bennett, a New York Times bestseller that delves into racial identity and sexual orientation.



The Brighter Side, a regular newsletter with information, reminders, and community-building efforts, was introduced in March 2020. Released to all FRES staff on a bi-monthly basis for the duration of the remote-and hybrid work period, The Brighter Side featured resources for body, mind, and spirit, university updates for those working remotely, and updated information on Diversity, Equity, and Inclusion (DEI) efforts at Penn.

Throughout FY21, Penn's **Employee Assistance Program** (EAP) provided counseling and referral services for personal and professional life issues via listening post sessions. The EAP provides access to free, confidential, 24/7 counseling by phone, email, webchat, video, and through face-to-face sessions. Call 866.799.2329 or visit healthadvocate.com.

ECONOMIC INCLUSION



DIVERSITY, EQUITY, AND INCLUSION

As part of a renewed commitment to an inclusive work atmosphere at FRES, in August, non-union staff participated in *Bystander to Upstander* training via Knowledge Link. The training addressed the ways staff can become allies, hold peers accountable, and develop skills to speak up in order to turn a toxic workplace into a supportive one.

In response to heightened social unrest, in June 2020, FRES leadership hosted two Black Lives Matter forums. Additionally, in November 2020, Chaz Howard, Penn's University Chaplain and first-ever Vice President for Social Equity and Community, spoke to FRES staff at a virtual event to discuss his new position, as well as the mourning of Walter Wallace Jr. He provided guidance for emotionally charged and challenging times, and offered an opportunity for staff to share their thoughts on diversity efforts at Penn.

In response to employee interests, throughout FY21, FRES partnered with a consultant to establish a strategic approach to Diversity, Equity, and Inclusion (DEI). A staff-wide survey was distributed and small focus group discussions were held throughout Winter 2021. The consultant analyzed the feedback and prepared a report for FRES leadership. Highlights from the DEI strategic plan were shared with all of FRES, during the Summer '21 FRES Annual Update virtual meetings. The publication of a DEI Executive Summary is planned for Winter 2021.

All areas of FRES have the objective to build the Tier 2 Minority and Women-Owned businesses (MWBE) in order to help small businesses grow in capacity by including them where appropriate or assisting them in making the connections to larger prime contractors with which they can potentially partner. Some areas of opportunity include match making between on-call contractors and specific diversity third party collaborators and assisting them in developing relationships. In July 2021, the University's Procurement Services Virtual Supplier Diversity Forum, was held where representatives from FRES used virtual breakout rooms to connect with these companies. Summer 2021 also marked the launch of the new Penn Supplier Diversity & Inclusion Program through Business Services.

As we enter into FY2022, FRES will be more involved with community outreach, a new recognition program for inclusive buying, enhanced supplier promotion, and other activities in collaboration with Penn's Office of the EVP. Training will be done with all Administrative Coordinators on diversity catering companies, and FRES will continue to partner with and provide opportunities for diverse third party collaborators in our projects. FRES also participates in the quarterly Economic Inclusion meetings, which includes all the local chamber partners.

OTHER HIGHLIGHTS

All areas in FRES are working with PAGE (Philadelphia Anchors for Growth and Equity) and their mentorship program to establish connections for potential opportunity where appropriate.

The Office of the University Architect was an inaugural recipient of the Penn Supplier Diversity & Economic Inclusion Impact Awards for its work with Philadelphia-based, Black-owned business, to create a catalog of customized signage that could be used across campus during the pandemic.

FRES Minority and Women Owned Business Economic Inclusion Goals

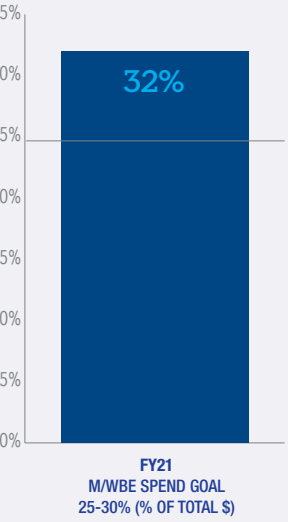
A robust diversity program has been in place within Facilities & Real Estate Services to reach economic inclusion goals for minority and women-owned businesses (MWBE), and for minorities and women in the work force. Recently, FRES has expanded to intentionally include diversity spend for all FRES departments: Real Estate, University Architect, and Operations & Maintenance, as well as Design & Construction, which has been reporting in this area for years.

MWBE

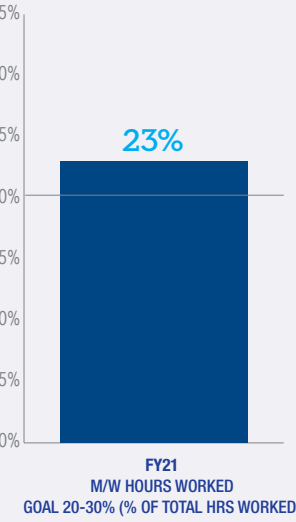
MINORITY- AND WOMEN-OWNED BUSINESSES (MWBE) PERCENTAGE OF ACTUAL SPEND FY21

For Design & Construction, these goals apply to projects greater than \$5M in construction.

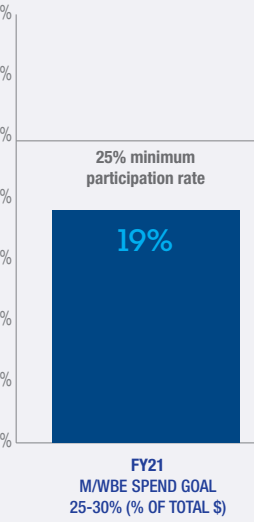
DESIGN & CONSTRUCTION
Minority & Women Construction Contracts
M/WBE total spend = \$175M



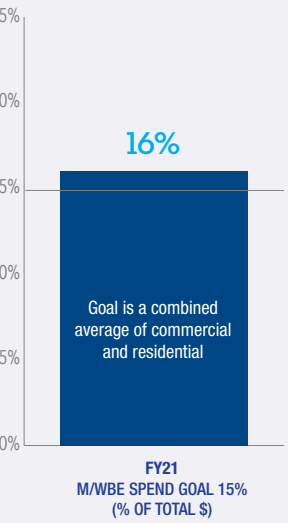
DESIGN & CONSTRUCTION
Minority & Women Construction Workforce Participations
M/WBE total hrs worked = 680,000



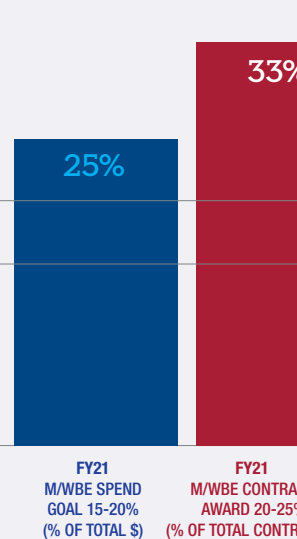
OPERATIONS & MAINTENANCE
Campus Operations and Maintenance Contracts
M/WBE total spend = \$32.8M



REAL ESTATE
Real Estate Operations and Maintenance Contracts
M/WBE total spend = \$6.5M



UNIVERSITY ARCHITECT
On-Call Design Professional Services
M/WBE total spend = \$3.3M
M/WBE total contracts = 135





DESIGN & CONSTRUCTION

The Design and Construction department implements the University's capital plan for new construction and renovation of existing properties. The team works closely with the Schools and Centers, design teams, and contractors to ensure that capital projects are completed on time and on budget, while meeting the quality level expectations of the University. The Project Managers lead the Schools and Centers through the budget approval process, design, procurement, and construction of these capital improvement projects.



Academic Research Building



Academic Research Building

COMPLETED PROJECTS

Wharton's 68,400 sq. ft. **Academic Research Building** was completed in December 2020, containing two stories of academic and research space and a first floor atrium, where students can gather around a living green wall to work or socialize. The \$86M project also relocated an existing electrical substation above ground, and includes a rebuilt Woodland Walk, now fully accessible from 36th to 37th Streets.

The **University Meeting and Guesthouse**, completed in April 2021, welcomed important guests to campus and provides a place for strategic meetings and special events. The \$26M construction of the project transformed two Victorian townhouses on 38th and Walnut streets into an open, modern and welcoming space, within its contemporary terra-cotta clad facade.



Meeting and Guest House

The construction of the \$4M **Stuart Weitzman Plaza**, located between Meyerson Hall and Fisher Fine Arts Library, was completed in December 2020. Improving campus east-west connectivity between Smith Walk and Locust Walk, the redesigned plaza adds seating and a stepped terrace to the space, increasing the prominence of the Weitzman School of Design (WSoD) on campus, and creating a space for the campus community to study and socialize.



Weitzman Plaza

The \$4.3M renovation of the ground floor space in College Hall has created a welcoming study and gathering space for the first-generation and low-income students of **Penn First Plus**. Completed in September 2020, the new 2,500 sq. ft. Penn First Plus Office offers a central, supportive home at Penn where first-generation and undergraduate students of limited financial means can find access to University resources. The adjacent space also features offices for the **Paideia Program**, Penn's new central hub for developing courses, events, and co-curricular activities to promote civil discourse for undergraduate students.



Penn First Plus

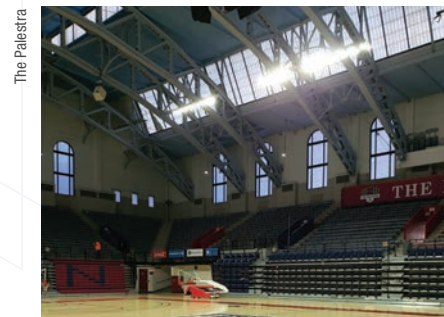


New College House

As of spring 2021, **Gregory College House**, now features air conditioning as well as updated windows. The completion of this \$18M project resulted in all residential facilities on Penn's campus being fully air conditioned.

The construction of the 250,000 sq. ft. **New College House** was substantially completed in Summer 2021 and welcomed its first residents in fall 2021. The 13th college house on Penn's campus, this \$160M, 448-bed residential building houses undergraduates and provides common areas including a life skills kitchen, study, living, seminar, fitness, and music practice rooms.

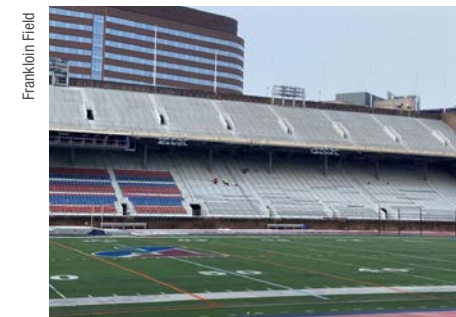
The renovation of the Biomedical Library converted the existing space into a modern and technologically advanced flexible-learning facility called **Biotech Commons**.



The Palestra

The \$10.9M project provides expanded 3D printing capabilities, supports student gathering and group study, and can host interdisciplinary events. The project was completed in Summer 2021. Penn's famous basketball arena, **the Palestra**, built in 1926, received a welcome visual and comfort renovation which was substantially completed in Summer 2021. The \$10.77M project improved the building's ventilation system and upgraded its historic windows.

The **High Bay Research Laboratory**, which houses the Physics and Astronomy Department's Balloon-borne Large-Aperture, Sub-millimeter Telescope (known as BLAST), was recently replaced by a new 2,000 sq. ft. building that includes a crane beam and barn doors to allow the telescope to be calibrated with the night sky. The \$4M project was completed in May 2021.



Franklin Field

IN CONSTRUCTION
Restoration of the concrete of the 1922 **Franklin Field** continued throughout FY21 and is currently in its fourth and final \$9.7M phase. The \$46.5M total project cost included concrete repairs followed by cathodic protection of the steel rebar and a new membrane coating to extend the life of the stadium. Work will be substantially complete in Winter 2021/2022.



High Bay Research Laboratory



Penn's Historic Boathouse

Penn's Historic Boathouse, listed in the Philadelphia Historic Register, will undergo a \$13.5M addition and renovation which started in 2021 and will be completed in 2022. Highlights will include a new two-story entrance lobby, a renovated second floor grand hall, a curated display of Penn Rowing memorabilia and artifacts, an event space, ADA accommodations, HVAC upgrades, and improved locker rooms with greater equality between the men's and women's teams.

3401 Walnut Street



Projects in construction during FY2021 include the installation of a **Secondary Steam Line** from the South St. Bridge to the Irvine steam station in order to provide a redundant feed for the University and Health systems. The \$18.2M project was substantially completed in November 2021.

The Façade of **3401 Walnut** is in the process of receiving a \$7M upgrade that includes stucco and window replacement, as well as limestone and parapet cap repairs.

The University's **Information and Computing Systems (ISC) offices**, located within 3401 Walnut, were renovated and completed by the end of 2021. The \$8.75M project includes converting a data center into offices, and upgrading the existing offices Band restrooms.

LRSM



The **Laboratory for Research on the Construction of Matter (LRSM)** is in the process of receiving a \$42M infrastructure upgrade, including a new sprinkler system, new air handlers and an emergency generator. The expected completion date for the project is February 2023.

Another infrastructure project in process is the \$18.7M upgrade to the controls system for the **Biomedical Research Building**. Scheduled to be completed in July 2022, the project will fully replace the building's HVAC controls and complete reheat system repairs, including vivarium piping replacement.

ACE Mentor Program



ACE PROGRAM

In 2020/2021 the national ACE (Architecture, Construction, and Engineering) Mentor Program turned virtual, featuring presentations from industry experts and providing online resources for students interested in the architecture, construction, and engineering fields. In April 2021, FRES Design & Construction staff gave a presentation about the project process from beginning to end, including facts about budget reconciliation, construction coordination, and more. The Design & Construction team looks forward to welcoming an ACE Team back to FRES for the eighth year in Fall 2021.

CAMPUS CONSTRUCTION BY THE NUMBERS

750K SF

Completed or underway FY21
Renovation and new construction

91

Projects closed through Q3
with savings of \$12M-
no projects over budget

\$1B

Approved total budgets

420

Construction workers on
campus daily

10/25

10 sr staff and 25 project
managers alternated on campus
to cover construction

355

Active projects

\$300M FY20 \$280M FY21

Project expenditures



OFFICE OF THE UNIVERSITY ARCHITECT

The Office of the University Architect (OUA) is responsible for the Penn Connects campus development plan, capital project design oversight, and preservation of University's 300-acre urban campus, including facilities at the Pennovation Center, the Morris Arboretum and the New Bolton Center for Veterinary Medicine. The OUA leads the architect and design consultant selection process, manages design review and coordinates zoning and accessibility requirements. OUA staff facilitate the annual Capital Plan, maintain all space data, oversee all landscape design, environmental graphics, and track progress on the *Climate and Sustainability Action Plan 3.0*.

Vagelos Laboratory



PROJECTS IN DESIGN

In February 2021, Penn's Board of Trustees approved plans for the construction of a new SEAS Data Science Building and the Vagelos Laboratory for Energy Science and Technology. The \$136M **Data Science Building** now named **Amy Gutmann Hall** will centralize Penn's data research resources, providing a cross-disciplinary collaboration hub harnessing research and data across Penn's schools and centers.

The \$173.5M, state-of-the-art, **Vagelos Laboratory** for Energy Science and Technology (VLEST) will consolidate the University's existing and future energy research, including the study of clean energy conversion methods, into one research facility. Construction on both buildings will begin in spring 2022, and both are expected to be completed in 2024.

Amy Gutmann Hall



Stouffer College House



The 1972 **Stouffer College House** will undergo a \$29.8M makeover including a full renovation of all student rooms, the installation of single use restrooms, and refurbished student amenity spaces. The renovation of Stouffer is expected to be completed from 2022-2023.

Quadrangle College House



The \$200M renovation of the **Quadrangle College House**, constructed from 1895 through 1955, will restore the building envelope, replace windows, improve ADA accessibility, replace aging systems, renovate all restrooms, and refurbish student rooms. Construction of the Quad is anticipated to begin in 2022, and continue over six consecutive summers.

Project Awards

Numerous Penn building projects and sustainability initiatives were acknowledged or their excellence over the past year.

The recently completed **University Meeting and Guest House** received an honorable mention in the **Architect Newspaper Best of Design Awards' Unbuilt-Education** category in December 2020.

The restored and renovated **Richards Medical Research Laboratory** was recognized in 2020 by both **DOCOMOMO US** and the **American Institute of Architects**, Pennsylvania Chapter.

The **Ronald O. Perelman Center for Political Science and Economics** received a **Design Excellence and Service Award** from the **Ontario Association of Architects** (OAA).

The renovated **Penn Squash Center**, completed in 2019, was honored with a **Best Project Award** from **Engineering News-Record** (ENR).

Stemmler Hall, which underwent a large-scale renovation in 2016, won a **2020 Reconstruction award** from **Building Design and Construction** (BD&C).



Both renovation projects at the **Lauder Institute** and **Stemmler Hall** were awarded **LEED** silver and gold, respectively. Other FRES projects are in the pipeline to be awarded LEED status in 2021 and 2022.

Penn was recognized as a top performer in the [2020 Sustainable Campus Index](#) publication, ranking 7th overall in the area of Diversity and Affordability and 5th overall in the area of Transportation.



For the twelfth year in a row, Penn has been named a Tree Campus USA by the Arbor Day Foundation. The **Tree Campus USA** program recognizes college and university campuses [that effectively manage their campus trees](#).

Penn Graduate School of Education



Penn's **Graduate School of Education** (GSE) at 37th and Walnut, completed the construction documents for a \$34.8M [addition and renovation](#) that will add a four-story entrance pavilion and a two-story addition on the west side of Stiteler Hall. The construction will include new collaborative student areas, teaching laboratories, executive-level classrooms and offices that will enable the GSE to consolidate its degree programs in one location, and create a multifaceted, central hub for education on campus.

PENN'S URBAN PARK

In alignment with the goals of Penn's *Climate and Sustainability Action Plan 3.0*, the University promotes the importance of trees and the creation of public open spaces. In May 2021, University Landscape Architect Staff partnered with Penn Sustainability and TreePhilly, a program of Philadelphia Parks and Recreation, for the 2021 **Creating Canopy tree giveaway**, providing more than 100 free yard trees to Penn and UPHS staff and faculty. Since the Creating Canopy program began in 2011, FRES has added more than 2,000 trees to the region's tree canopy through this program.

Creating Canopy



Penn Park Farm Orchard



In support of the **Ecological Landscape Stewardship Plan**, Urban Park staff participated in **hands-on training sessions** to review and demonstrate maintenance practices of native plantings on campus. The training helped staff establish priorities for tree succession and plantings into the future as the canopy on campus ages and matures.

The **Penn Park Farm and Orchard** flourished over the past year, with volunteers distributing hundreds of bags of produce and vegetables to those in need during the course of the pandemic. The Farm and Orchard (established in 2014) continue to develop programs with **Wellness at Penn** and Penn's Center for Public Health to address food and social justice and food insecurity.

Campus trees



Penn's tree canopy is one of the most developed and extensive in the city of Philadelphia. Currently at a **Level 2 Arboretum** status, this past year 75 new trees were installed, and 200 were pruned. A new pilot Plant Health Care program was launched, aimed at proactive, preventive care for Penn's trees.

Women's Garden Center



Three **gardens and parks** were improved in spring and summer 2021: the **Penn's Women's Center Garden** at 37th Street and Locust Walk, **Kane Park** at 34th and Spruce Streets, and the **Hill Pavilion Gardens** at 38th and Spruce Streets. All feature the addition of extended seasonal interest, more native trees, shrubs, and perennials.

Brick House



Brick House

Brick House, a bronze sculpture by acclaimed artist Simone Leigh, was installed at 34th and Walnut Streets in November 2020. Weighing close to 6,000 lbs., the piece depicts a Black woman's head atop a form that suggests a skirt or a building. It is the first large-scale piece in the artist's Anatomy of Architecture series that merges human form with diverse architectural elements. Read more about the sculpture and how it came to Penn in this article from [Penn Today](#).

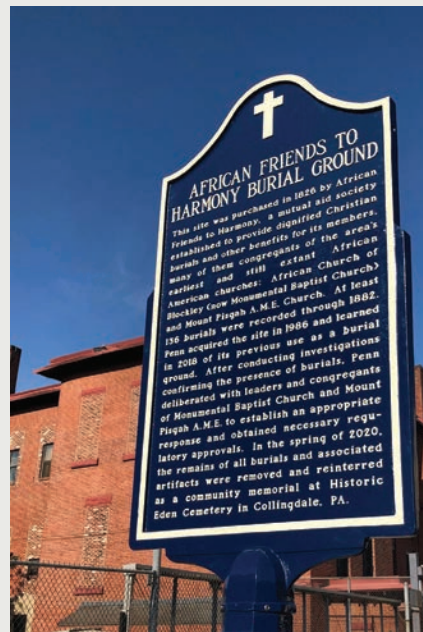
ENVIRONMENTAL GRAPHICS

Throughout 2020/21, the Office of the University Architect redesigned and replaced fifteen large campus maps and three Penn Park maps.. The project was part of an effort to unify all campus signage with a visitor-friendly vocabulary, appropriate for an acclaimed urban research and teaching institution.

Campus signage



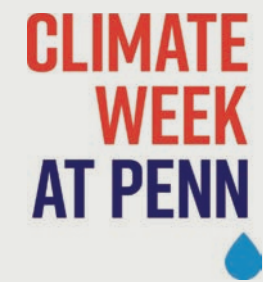
Harmony Burial Grounds



Weitzman School of Design



OUA also worked to design the new **Stuart Weitzman Plaza donor signage**, named for Wharton graduate Stuart Weitzman. In February of 2019, the University of Pennsylvania named its School of Design after Weitzman in recognition of both his ongoing philanthropic support of the University and his active engagement in its academic activities.



SUSTAINABILITY

Penn's first Climate Week, September 21 – 25, 2020, offered more than 45 virtual events, organized by various schools and centers at Penn, covering climate science and storytelling with a special emphasis on racial justice and local action. Penn Sustainability aligned its annual ReThink Your Footprint campaign with Climate Week, encouraging members of the Penn community to take action to reduce their own environmental footprints.

While COVID-19 prevented most in-person sustainability events over the past year, the Penn Sustainability team became more active on its [YouTube channel](#), using the platform to post videos like *Tips for Green Living at Penn* and panel discussion *Nature as Nurture: How 3 Philly Groups Are Improving Access*.



Penn Sustainability commemorated [Earth Week](#), April 19-24, 2021, with a mix of in-person and virtual events. In honor of the 51st anniversary of Earth Day, participants enjoyed socially distanced group yoga and a virtual tour of hives with the Penn Beekeeping Club.

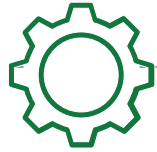
The Sustainability Tracking, Assessment & Rating System™ (STARS®) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. Penn completes the **STARS** self-reporting tool every three years and began the information collection from across the university during FY21. The report was submitted in August 2021 and received a **Gold** rating.

Overall, work towards the goals of Penn's **Climate and Sustainability Action Plan 3.0** continued throughout FY21, with progress made in all areas. A summary of activity is available on the [Penn Sustainability website](#).



Power Purchase Agreement

In 2020, the University of Pennsylvania signed a Power Purchase Agreement (PPA) for the creation of a 220 megawatt solar power project, moving the University significantly closer to meeting its commitment of a 100% carbon neutral campus. In FY21, progress was made in design of the facility and selection of a construction firm. Read more about the project, and find answers to FAQs, at [Penn Sustainability](#).



OPERATIONS & MAINTENANCE

Operations and Maintenance sustains the University's resources by providing maintenance and repair of existing facilities infrastructure. The Department also manages campus-wide energy related initiatives, provides technical support to construction projects and service contracts, and special events. FRES' Operations & Maintenance leadership team has pledged to strive for excellence in eight Focus Areas. These Focus Areas have management staff support and expectations in: attitude, approach, productivity, resiliency, work environment, human assets, information, and finance.

Housekeeping Training



CUSTOMER RELATIONS MANAGEMENT

In FY21, Operations and Maintenance initiated a **weekly virtual Building Administrators Forum**, providing customers with regular updates on O&M processes during the pandemic and exchanging ideas on how best to serve the campus.

FINANCIAL MANAGEMENT

Management of expenses over the past year resulted in a more than 16% reduction of annual expenses, and a 19% MWBE addressable spend.

Safety Training



HUMAN ASSETS MANAGEMENT

Employee training throughout the pandemic included safety and wellness awareness sessions. A focus on communication with unionized staff included text messaging and Knowledge Link trainings.

SAFETY AT WORKPLACE MANAGEMENT

Workplace safety concerns continued to be addressed through the SAFE card program, and roof fall protection was installed in 21 buildings.

UTILITIES & LOAD SERVING ENTITY (LSE) MANAGEMENT

O&M supported the design of Sub #4, construction of the secondary streamline, a MOD-6 controls upgrade, buildings chilled water interfaces, 34th Street chilled water cross tie, and the MOD-5 cooling tower removal. They ensured MOD-6 & 7 major maintenance activities were performed as planned.

MOD-7



ENERGY & GREEN HOUSE GASES (GHG) EMISSIONS MANAGEMENT

In November 2020, O&M leadership presented the positive results of the FRES recommissioning programs to the Board of Trustees, highlighting the potential \$3.5 million annual savings identified as a result of studies conducted in 11 laboratory buildings. The Power Purchase Agreement (PPA) contract was continually monitored, as were production capacity goals, the completed design, and the selecting of the energy performance contracting (EPC) firm.

MAINTENANCE MANAGEMENT

Work order backlog was reduced in FY21 thanks to an effort to prioritize service requests. Continued development of the Mechanical Electrical Plumbing (MEP) field supervision initiative and facilities reconditioning efforts at the Perelman School of Medicine (PSOM) were successful, as was the development of a new, Enhanced Proactive Maintenance & Systems Performance Verification (ePM) program in the same PSOM buildings. Additionally, in an effort to focus on preventative maintenance, O&M began a pilot thermal imaging program for building electrical panels.

Summer Turnaround 2021



Summer Turnaround 2021

The staff of FRES Housekeeping and Trades did an excellent job repairing, cleaning, painting, and refreshing our buildings and green spaces during **Summer Turnaround 2021**. During those short 13 weeks, housekeeping cleaned over 1.6 million additional square feet, including approximately 3,800 student rooms. Our trades staff completed 6,860 work orders over the same period, ensuring that the buildings and public spaces on campus looked outstanding by the time students returned for the fall 2021 semester.

Helen Mack, Housekeeping



HOUSEKEEPING MANAGEMENT

In order to address the continuously evolving needs of various schools and centers, weekly housekeeping assignments were updated to reflect current building occupancy levels in a changing environment. COVID-19 related cleaning protocols were updated and implemented, in accordance with established guidance from EHRS.

O&M continued to develop its relationship with the [West Philadelphia Skills Initiative](#) (WPSI), a workforce intermediary dedicated to providing employment solutions in order to close the job opportunity gap in West Philadelphia. The WPSI runs year-round training models, and in 2020, FRES partnered with the program to fill vacancies with the hiring of 13 housekeepers.



Gary Smith, Trades



Penn Today published the article [Campus workers deliver a 'team effort,'](#) featuring O&M housekeeper Helen Mack and plumber Gary Smith, and outlining their roles and responsibilities as essential workers on campus throughout the pandemic.

GROUNDS MANAGEMENT

O&M worked with the Office of the University Architect and Design & Construction to summarize the Environmental Stewardship & Landscape Plan (ESLP) study findings and initiatives.

In another collaborative effort among these three FRES departments, O&M resolved the high priority slip/fall hazards on the campus walkways.

SOLID WASTE MANAGEMENT

In collaboration with the Penn Sustainability Office, O&M saw campus waste diversion and recycling rates improved over FY21.

PEST MANAGEMENT

A new pest management vendor was selected to implement an integrated plan with a special focus on preventative maintenance.

Urban Parks Staff



REAL ESTATE

The Real Estate department is responsible for the strategic planning, management, and operation of the non-academic property for the University. The primary centers within the Department are Real Estate Development, Retail, Off-Campus Housing, Office and Warehouse Leasing, Third Party Leasing, and Pennovation Works. Core disciplines include acquisition and disposition of assets, development partnerships in residential, mixed use and office, operations of real estate holdings and office leasing for academic schools and centers. Working in conjunction with other FRES departments, Real Estate implements urban land development and planning that increases the quality of life for Penn and its surrounding community.



SHOP PENN

Penn's neighborhood retailers were deeply affected by the pandemic-related drop in the usual customer base of students, staff, faculty and neighborhood patrons. During this time, FRES' amplified marketing efforts to support **Shop Penn** retailers including enhanced social media and [web content](#) such as socially distanced Itineraries, recipes shared by some of the popular restaurants, fun Q&As with business owners, and a [Holiday Gift Guide](#). Many businesses remained open for online shopping, takeout and delivery to attract those customers on or near campus. FRES management of the real estate portfolio also worked diligently with operators on rent reductions and abatement

ACME



during these difficult months, and communicated with many of our Shop Penn small business owners to relevant grant programs or financial advisors to assist in long-term viability.

An **ACME** store opened in October 2020 at 40th and Walnut to serve campus residents as well as our West Philadelphia neighbors. Penn's Sr. EVP Craig Carnaroli attended the ribbon-cutting ceremony and a short presentation where ACME leadership [announced](#) an additional \$50,000 to five local hunger relief initiatives supporting the West Philadelphia community. Each organization—including the University's Netter Center for Community Partnerships, which will use the funds for its food distribution programs in University City—was presented with \$10,000.

Several Shop Penn retailers used the down time of the pandemic to renovate or completely change locations. [Baby Blues BBQ](#) officially joined the Shop Penn portfolio and moved to 3432 Sansom Street. The [Natural Shoe Store](#) at 226 South 40th Street, a campus staple since 1978, complete renovated and reopened in the Spring. The popular [Hello World](#) moved to a larger location at 3661 Walnut Street.

Preparations took place during the past year to welcome new tenants as well, most in the pipeline for opening in Fall 2021: [Five Guys](#), [European Wax Center](#), and [DIG](#).

PENNOVATION WORKS

December 2020 heralded the completion of the Pennovation Lab, repositioning an existing building at Pennovation Works that now offers 65,000 sq ft of space, available for scientifically advanced wet or dry labs, or customizable offices. The first tenant was announced in March 2021, Strella Biotechnology, a Philadelphia-based agricultural biotech startup tackling the problem of food waste. Strella had outgrown its incubator space in the Pennovation Center, and moved over to the Lab, verifying the innovation ecosystem concept of Pennovation Works. A second tenant, Interius Biotherapeutics, also took occupancy during the summer of 2021.



Programming at Pennovation Works continued virtually on a limited schedule during this fiscal year.

Penn Center for Innovation (PCI) Ventures held its Mentor in Residence program that paired startup companies with accomplished entrepreneurs and industry leaders who serve as informal advisors. Pennovation Works hosted a virtual panel during Philly Tech Week 2021, *Innovation Lessons from the Frontiers of Healthcare*, in May.

Although virtual this year, the Pennovation Accelerator invited a cohort of six local startups to engage in a six-week program to develop their business strategy and cultivate their network. The program runs mid-July through mid-August, culminating in Pitch Day.

Pennovation social media featured a Meet the Innovator series designed to introduce the entrepreneurs at work at Pennovation Works during a time of social distancing. Representatives from Avisi Technologies, Goepfert, Automation Research Group, Strella, and others were featured.

REAL ESTATE DEVELOPMENT

Opened in December 2020, Tangen Hall has seven floors that house the Venture Lab (a partnership by the Wharton School, Penn Engineering, and the Stuart Weitzman School of Design), the Integrated Product Design master's program, and the Jay H. Baker Retailing Center, among other centers and programs.

Tangen Hall



Designed by architect KSS, Tangen totals 68,000 gross sq ft and a total project cost of \$43M. The building was made possible by the AKO Foundation, the charitable foundation established by Nicolai Tangen, W'92 and Katja Tangen.

A major redevelopment is planned for Sansom Place East in order to enhance housing options for graduate students. This building will offer below-market rental rates through sustainable re-use of the existing building. Occupancy is planned for August 2023.

LEASING

Real Estate continues to offer assistance to Penn's schools and centers as they evaluate space needs and planning strategies. For example, Real Estate collaborated with the Perelman School of Medicine in the negotiation

with Discovery Labs in King of Prussia for the University of Pennsylvania Gene Therapy Program (GTP). GTP will take up 150,000 sq ft on Discovery Labs' suburban campus for a portion of its expanding research operations focused on the development of genetic medicines for rare and orphan diseases, as well as acquired and pandemic infectious diseases, such as COVID-19.

Through negotiations managed by Real Estate, the space leased in San Francisco for Wharton West and in Beijing for the Wharton China Center has been renewed for the next several years.

Rotunda



ARTS, CULTURE & COMMUNITY

Since the late 90s, The Rotunda has been the pre-eminent venue for arts and culture offerings for Penn and the West Philadelphia community. Staff there pivoted quickly to move performances and content online, and to continue to support the West Philadelphia arts community, as discussed in a February Penn Today article.

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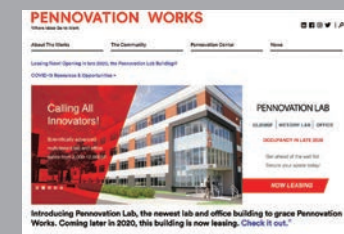
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IN THE HEADLINES

April 29, 2021
The \$5 Billion Decade
Philadelphia Business Journal

April 21, 2021
The Stories Trees Tell
Penn Today

March 25, 2021
Strella Biotechnology, whose backers include Mark Cuban, expands its presence at
Pennovation Works
Philadelphia Business Journal

August 26, 2020
Campus workers deliver a 'team effort'
Penn Today

February 8, 2021
The Rotunda shows resilience during pandemic
Penn Today

December 8, 2020
How Philly's Bioscience Sector Is Driving the City's Next Big Real Estate Boom
Philadelphia Magazine

November 10, 2020
Towering bronze sculpture installed at the entrance to Penn's campus
Penn Today

October 23, 2020
Acme's 6 a.m. grand opening attracts over 100 Penn students and local residents
The Daily Pennsylvanian

August 26, 2020
Campus workers deliver a 'team effort'
Penn Today

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*Please note: This publication uses
pre-pandemic photos to illustrate our
work in FY21.*



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