



FY 2017-2018 Annual Report

Physical Plant Department (PPD)

Submitted by:

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Mission and Vision

Mission

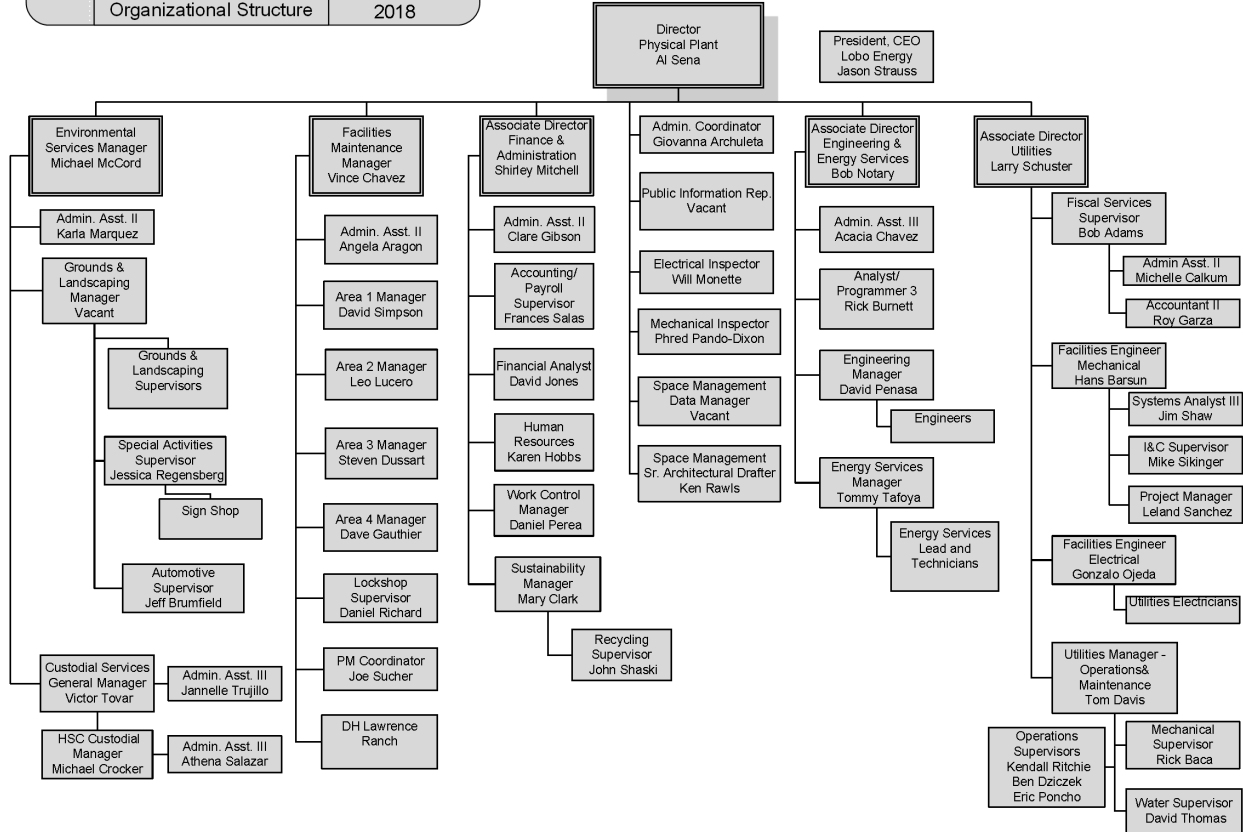
The Physical Plant Department's mission is to consistently deliver effective programs and efficient facility service based on sustainable and collaborative outcomes aligned with The University of New Mexico's core mission.

Vision

The Physical Plant Department's vision is that our community, state, and national peers will recognize The University of New Mexico's Physical Plant Department as a leader in campus sustainability and facilities stewardship.

Organizational Chart

Physical Plant Department
Organizational Structure 2018



10/3/2018

PPD Org Chart June 30, 2018

FY 2017-2018 Annual Report

Table of Contents

I.	EXECUTIVE SUMMARY	5
II.	ACCOMPLISHMENTS/SIGNIFICANT DEVELOPMENTS	6
III.	CURRENT/FUTURE PROJECTS	13
IV.	PERSONNEL APPOINTMENTS/SEPARATIONS	16

I. EXECUTIVE SUMMARY

The Physical Plant Department is comprised of five divisions; Engineering and Energy Services, Environmental Services, Facilities Maintenance Services, Finance and Administration Services and Utilities. Each division supports Institutional Support Services goals of: throughout the year:

- Finance
- Customers and other Stakeholders
- Process Improvement/Quality Initiatives
- Human Resource Management
- Risk Assessment and Compliance

For PPD, the overarching objective of these goals was to continue to identify and act on opportunities to reduce expenses and to efficiently repurpose those funds to improve facilities for our customers. Benchmarking, risk assessment, communication, process refinement, and employee development remained primary strategies.

PPD reorganized how capital projects and maintenance improvements are identified and vetted. The goal was to assure that projects are aligned with other projects ongoing within the institution. This process was extended throughout the department and collaborated with the Planning Design and Construction Department.

PPD also reorganized administrative structure to improve accountability of key functions such as space management and inspection. Alignment measures were also evaluated and deployed to improve supervisor and management engagement with staff for human resources purposes. Staff development planning was identified as a weakness to be address by each unit with every division. A department development plan outline was started in order to increase staff retainage and recruitment.

PPD reviewed UAP policies that directly affect operations and engagement with our customers and stakeholders. The department has determined that annual review of polices, standards, procedures, and practices is essential for improvement.

Budget Information:

Total Revenues:

\$77,515,169

Total Expenses:

\$74,620,593

Year-end Balance:

\$2,894,596

II. ACCOMPLISHMENTS/SIGNIFICANT DEVELOPMENTS

Communications

- Completed an overview of Communications efforts and activities with the new director.
- Coordinated a fall presentation of PPD activity and changes to the University's building coordinators.
- Started outlining a communications plan to address internal and external processes and procedures. This included a fresh look at a marketing plan for the department.
- Created a combined Communications and Outreach Specialist position with Institutional Support Services.
- Communications and Outreach Specialist position became vacant in March 2018.
- Started a search for new position Public Information Representative.

Engineering, Energy Services and Space Management

- Installed, operated and maintained control systems at Continuing Education, UAEC, HEB Café, MRF, Taos Pueblo Hall, and Zimmerman Library in support of energy conservation, renovations, and replacement of obsolete systems. Absorbing these activities in-house has saved over \$700,000 compared to utilizing outside contractors.
- Numerous failed tests of building smoke control systems resulted in expedited repairs and/or replacements of fire alarms systems in various buildings. Projects were completed at Dane Smith, Mechanical Engineering, Kiva, Continuing Education, UAEC, Pearl Hall, Hibben Center, EECE, Chemistry, Student Union, and Popejoy Hall.
- Installed and replaced interior and exterior lighting at multiple locations around campus for enhanced lighting, energy savings, controllability, and safety.
- Completed a storm water study and performed system enhancements and developed a system-cleaning program. Subsequent large rainfall events were sustained without previous flooding issues.

- Replaced of underground domestic water distribution systems throughout the Student Residence Center (SRC) complex. The piping was installed during the summer of 2018.
- Continuation of building main electrical gear and emergency generator replacements for the HSC Library, CTSC, Family Practice, EECE, Mechanical Engineering, and Logan Hall.
- Completion of several major commissioning services projects, including McKinnon Center, Farris Engineering, Health Education Building Phase 3 and numerous smaller projects on the main campus, branch campuses and UNM-Hospital. Total cost savings achieved by performing these in-house services was approximately \$200,000 compared to the cost of outside commissioning agents.

Environmental Services

Automotive:

- Automotive technicians completed 2,206 service requests for University fleet vehicles.
- Started GIS research to track UNM assets to provide data on appropriate use and location.

Custodial Services:

- Purchased new disinfectant equipment, Total 360 Disinfectant Cleaner, which disinfects an area from top to bottom within minutes, eliminates odors, kills cold and flu viruses. This product is an effective disinfectant against Methicillin-Resistant Staphylococcus Aureus (MRSA).
- Main Custodial Services maintained over 3,862,742 cleanable square feet at an APPA Level 2 standard with 100 FTEs.
- The Health Science Center Custodial Services has 39 FTEs and maintains over 1,073,393 of cleanable square feet at an APPA Level 1 cleaning standard.
- Custodial staff training exceeded 4,662 hours. Topics included team cleaning, supervisor, manager, equipment use, floor care, and mandatory compliance training.

- Implemented iPad usage for weekly inspections and work orders creating a paperless process and saving staff time.
- Implemented the Hygiene Program to verify cleanliness and identify problem areas.
- Implemented a chemical analysis tracking program and quarterly chemical inventory report to Safety Risk Services.
- Continued Campus Council meetings with building monitors to ensure customer satisfaction.

Grounds and Landscaping:

- Maintained over 300 acres of campus landscape to APPA Level 2 standards with a reduced staff of well under 40 FTEs. The staff vacancies included several leadership positions and many other support positions.
- Planned replacement of multiple sidewalks affected by a major piping project at the SRC housing complex prior to the start of school.
- Worked with student groups to renovate several areas of campus during Fall Frenzy activities in September 2017. This included the replacement of mulch at Scholes Hall, the Duck Pond, Zimmerman Library, and University House. Volunteers also washed PPD vehicles, removed graffiti/stickers and assisted in replacing trees northeast of the SUB.
- Continued drainage improvements on the south side of Domenici Mind.
- In conjunction with PPD Engineering, replaced storm drain covers with ADA compliant covers. This style also reduces the quantity of landscape debris from entering, and subsequently blocking, the storm drain system.
- Pest management technicians responded to 567 requests for service and completed over 126 preventative treatments and inspections. IPM evaluated best practices and initiated new preventative pest management services in cooperation with various campus auxiliary units. The totals were affected this year due to the retirement of the IPM Tech with several months of IPM work being contracted.

Sign Shop:

- The Sign Shop completed over 609 TMA Service Requests.

- Worked closely with Parking and Transportation (PATs), as well as with Safety and Risk Services (SRS), to update signage in parking lots, including reserved spaces, ADA compliance, event direction signage, and fire extinguisher markings.
- Purchased new 'Roland VersaUV-300 Flatbed Printer.' The new printer has advanced ECO-UV inks that create textures and embossing effects with gloss ink. It also offers direct printing capabilities on a variety of materials, including three-dimensional items. We are able to create media that is 31.5"W x 14.2"Lx3.94"H in (6) color CMYK+ gloss+ white.
- Assisted with design standards, creation, and install of all building signage for the McKinnon Center.

Special Activities:

- The Special Activities staff completed over 765 service requests for moves, event support, and equipment rentals. Also assisted in the fulfillment of Grounds and Landscaping service requests including:
 - 700 hours on graffiti and sticker removal
 - Maintenance on transformers and Daily Lobo boxes monthly.
 - Refurbished benches and table/chair sets as needed on campus.
 - Performed installs, removals and relocations for recycling bins and trashcans, bike racks, benches, and table/chair sets.
- Provided joint support with Grounds and Landscaping on numerous student and academic events on campus, including graduation and convocation ceremonies, International Fair, Sustainability Fair, Engineering – Annual BBQ, HSC staff appreciation luncheon, Hanging of the Greens, Red Rally, PPD United Way BBQ, Welcome Back Days, Freshmen Family Day, HSC Annual Job Fair, New Student Orientation events, and Lobo Food Pantry.
- Large moves included Johnson Center, in prep for construction, as well as the College of Education.
- Replaced all triangle banners on campus, including University House, Duck Pond, Cornell Mall, Yale Mall and Hodgkin Hall, to support UNM logo transition.

Finance and Administration

Accounting:

- Continued the process to eliminate LoboTime "Buff sheets." This fiscal year, Areas 2, 3, 4, the Sign Shop, Special Activities and Automotive were included in the process.
- Timecards are now reviewed and approved in LoboTime by the employee and supervisor, eliminating the need for after-the-fact reporting of time.
- For FY18:
 - Total Revenues: \$77,515,169
 - Total Expenditures: \$74,620,593
 - Balance: \$2,894,576

Recycling and Sustainability:

- Supported UNM in becoming a member of the University Climate Change Coalition (UC3), a group designed to help local communities achieve their climate goals and accelerate the transition to a low-carbon future.
- Hired John Shaski as the new Recycling Supervisor.

Work Control:

- Processed 58,073 PPD work orders through the TMA system, including 26,181 corrective maintenance work orders and 31,892 preventive maintenance work orders.
- Received 4,973 phone calls for work orders.
- Entered roof warranties for university buildings into TMA for electronic access by PPD staff.

Maintenance and Planning

- The division had a total of seven reported accidents from June 2017 to July 2018. The PPD Safety Committee continues to promote staff safety and issued three safety awards of one day off with pay.

- All area maintenance staff received bucket truck safety training. Electricians received NFPA 70E and High Voltage maintenance training. Plumbers received UPC, steam systems, and water treatment training. HVAC technicians attended UMC, vibration and alignment training, and training on updates to the controls systems on campus. All area managers and supervisors received training on bargaining unit, FMLA, impairment at work, APPA management training, and OSHA 10 card certification. Two employees from the Lock Shop were sent for training on the updated version of ENAC. Total cost of these programs was approximately \$40,000.
- The maintenance areas continue to improve the completion rates of preventive maintenance work orders. They completed 25,396 preventive maintenance work orders, or 62 percent of total work orders. They completed 15,496 or 38 percent corrective work orders. This trend indicates a reduction in the corrective work required, and continues to improve year to year.
- Upgraded elevator code deficiencies in Novitski Hall, Reibsoner Hall, and Zimmerman Library. Safety stops were replaced at Dream Style Stadium. During the renovation of Farris Engineering building a completely new machine room-less traction elevator was installed. These units are our new standard and reduce space needed for the hoist way and increase efficiencies. We are currently assessing the elevators at Humanities, Ortega Hall, and Reginald Heber Fitz Hall for renovation.
- Water Management Program testing uncovered two legionella hits. Both of these were in Area One and were remediated in cooperation with Phigenics.
- Main Custodial and HSC Custodial staff, all the area plumbers, and our mechanical inspector received training from Phigenics on HACCP plan controls for water heaters, water storage tanks, and domestic hot water recirculation systems.
- Completed renovation of the first floor bathrooms at Social Sciences at a cost of \$200K.
- Replaced Reznor units with Aeon's HVAC units on the roof of the Mattox Sculpture Center at a cost of \$100K.
- Replaced leaking windows in the atrium area of the new Art building at a cost of \$150K.
- Replaced roofs on Simpson Hall at a cost of \$150K, and the Johnson Center roof over the old pool at a cost of \$250K.
- Replaced Castetter Hall skylights over the atriums at a cost of \$185K.

Utilities

- The division budget projected a \$78,379 surplus and ended FY18 with a surplus of \$1,132,035. After accounting for a \$231,071 deficit from FY17, the division finished FY18 with a net balance of \$900,965. The balance was due to favorable gas prices and delayed hiring.
- The plant failed to “island” (provide continuous power to the plant during loss of utility power) numerous times during the previous fiscal year. We engaged in a rigorous evaluation to determine and correct the cause(s) which resulted in a successful “stress test” of the loss-of-utility controls sequences. These tests will now be performed periodically.
- A campus-wide intermittent and random loss of chilled water availability due to air in the system resulted in large CHW system make-up water (approximately 16,000 gallons) and chemical replacement. The source of air entrainment appeared to have been caused by improper filling of chilled water systems at one or more construction projects managed by others.
- A new Very High Pressure (VHP) gas line was installed by New Mexico Gas Company at division expense, resulting in increased reliability, decreased electrical cost, and reduced maintenance.
 - No gas turbine failures were experienced from February through June. Seven failures occurred prior to gas line installation
 - Gas compressors were removed and sold.
- Phase I of the Valencia Campus Photovoltaic System was installed.
- The plant chilled water control system was upgraded with state-of-the-art controls.
- Gas Turbine Generator #1 engine was replaced.
- All required equipment successfully passed annual emissions testing.
- Performed complete preventative maintenance inspections of switches and transformers at Central and North Campus substations. Replaced substation class battery systems. Upgraded substation protective relaying. Replaced defective bus duct at Lomas Chilled Water Plant.
- Several sections of domestic water pipeline were replaced as part of our continuous replacement project.
- Installed a gently-used absorption chiller in place of the much older and failing machine at Campus Utility Plant (CUP).

- Converted billing process to ECAP and re-organized accounts to differentiate between future billable I&G DES meters, non-I&G DES meters, and non-billable (informational only) meters. All changes in delegation of responsibilities have been documented in division SOPs.

III. CURRENT/FUTURE PROJECTS

Communications

- Eliminate joint Communications and Outreach Specialist position and create a dedication PPD Public Information Representative position.
- Post and fill Public Information Representative position.

Engineering, Energy Services and Space Management

- Fire safety projects to improve smoke control and fire alarm systems are being completed in Ortega Hall, Masely Hall, Bratton Hall, and the Maxwell Museum
- Continuation of HVAC and lighting replacement projects in various campus buildings to increase system reliability and energy efficiency, including Bandelier West, CHTM, Economics, Humanities, Communication and Journalism, Northrop Hall, Nuclear Engineering, and HSSB.
- Commissioning of HVAC and lighting systems in accordance with LEED and campus standards in various projects (PAIS, JCER, Art, Honors College, and Student Health).
- Support of capital projects in design and construction phases including system commissioning and HVAC control system programming for various building projects and Smith Plaza renovation.
- Systematic replacement of legacy INET or ALC control systems that no longer have replacement parts available. Projects are being completed in Manzanita, Fire Arts, Castetter Hall, Carlisle Gym, Redondo Village, and Student Health.

- Building main electrical gear and emergency generator replacement projects, including a trailer-mounted temporary generator that will be available for quick service restoration in various facilities.
- Development of a pilot project for analytics decision making at Farris Engineering. This will provide a pathway to continuously monitoring, optimizing performance, and energy conservation in buildings.
- Market controls maintenance and commissioning services to auxiliaries, branch campuses, the UNM Cancer Center and UNM Hospital to improve building performance and generate revenue.
- Modify organization structure within the Energy Services group to increase ability to accept revenue-generating work and ensure emphasis on control systems and fire safety systems.
- Develop campus-wide analytics program, based on the Farris Engineering pilot project that utilizes building controls and energy data to continuously monitor and optimize performance and energy conservation in buildings.

Environmental Services

Custodial Services:

- Perform a custodial leadership evaluation to determine best practices and alignment.
- Review and address equipment replacement and upgraded job function needs.
- Review and develop training requirements for all levels of leadership.
- Develop and deploy standard practices and procedures for all custodial groups.
- Increase staff training hours over FY18.

Grounds and Landscaping:

- Evaluate the Grounds and Landscaping unit for implementation of new shifts to provide additional services to the campus community.
- Complete feasibility study for Duck Pond improvements

- Fully staff vacant positions.

Finance and Administration

Recycling and Sustainability:

- Support UC3 initiative to convene a climate change forum in 2018 at UNM to bring together community and business leaders, elected officials and other local stakeholders.
- Participate in the development of a UC3 coalition-wide report, to be released in late 2018, that will synthesize the best practices, policies and recommendations for continued progress on climate change goals across the nation and the world.
- Improve the efficiency of pick-up routes, sorting, and continue providing excellent customer service.

Maintenance and Planning

- Renovate restrooms in Humanities and Zimmerman Library.
- Clean all main campus storm drains.
- Replace roof, swamp coolers, and exhaust fans on Carlisle Gym.
- Replace sewer/cleanout lines at Johnson Gallery, as well as replace the aging hot water system with more efficient tankless water heaters, reducing costs and need for testing.
- Renovate roof, HVAC, and sewer systems at Hope House.
- Modernize elevators and perform fire service upgrades in Zimmerman Library, Ortega Hall, and Humanities.

Utilities

- Evaluate plan to construct a utility plant at the North Campus coordinated with UNMH.
- Evaluate the current and future campus chilled water and steam load profiles to determine how best to supply needed additional cooling capacity to the campus.
- Enhance ECAP billing process to include parallel lump-sum and building-by-building I&G Utilities billing, upload missing utilities consumption data, include manually-read meter data, and determine division parasitic energy consumption to factor into rates.
- Make changes to billing allocation as directed by Associate Director of Finance and Administration (when hired) to ensure utilities are being accurately billed out to the correct departments.
- Determine appropriate method to compensate for rescission of BR&R funding.
- Start phase II of Valencia Campus Photovoltaic System.
- Revise and update the Utilities Division Construction Guidelines and integrate them with the PPD Engineering and Energy Services Design Standards.
- The planned chiller addition was deferred until FY20 pending further coordination with the UNMH expansion.

IV. PERSONNEL APPOINTMENTS/SEPARATIONS

PPD began FY18 with 371 employees (excluding on-call and student employees). Sixty-one employees joined our team during the fiscal year. Sixty-three employees were separated (retirement, resignation, transfers, etc.), ending the fiscal year with 369 PPD employees.