Facilities Maintenance Restructuring Effort – North Campus Pilot
Executive Summary

The University of Michigan’s Facilities Maintenance (FM) department within Plant Operations is undertaking a restructuring effort aimed at fundamental improvements in how it performs building maintenance and repair activities. The changes are based on best practices in maintenance management and will lead to improvements in productivity, asset management practices, overall organizational performance and cost effectiveness. Although we compare favorably to other university facilities maintenance organizations, several key factors necessitate the need for restructuring.

- Continued reductions in maintenance general fund resources, with future funding unknown.
- Growth in University facilities. The University has added significant volume of built space in recent years. As these newer facilities and building systems begin to age, they will need maintenance care which will place an increasing burden on Facilities Maintenance.
- The technological complexity of facilities systems has dramatically increased.

This combined effect of space growth, aging facilities and ongoing budget constraints makes the current operating model and structure of the FM organization unsustainable in the long term.

Facilities Maintenance will improve its operating model by:

- Shifting from a reactive maintenance methodology (fixing things as they break) to a more proactive methodology that emphasizes preventive and predictive maintenance (reducing the number of asset failures and need for repairs as assets age).
- Creating a new Work Management Process that emphasizes work planning and scheduling. This is not effectively done by the current FM organization, yet it is a principle of effective maintenance management that yields proven gains in productivity.
- Creating new cross-functional shops, dedicated to a discrete set of assets (buildings and equipment), which are able to provide a broader scope of services to a region of campus.
- Focusing more on asset performance and analysis. FM does not currently track work effort, cost and failure data to individual buildings, systems or pieces of equipment. In order to increase the reliability of all of these assets, we will begin a more analytical approach to maintenance performance and reliability. This should save money in both the short- and long-run.
- Positioning resources closer to the work for logistical efficiencies - reduce travel time and vehicle usage from South Campus Central shops at Hoover and Greene Streets.

The FM restructuring involves testing the new work management processes and organization structure before implementing it across the entire university. North Campus was selected as a pilot “Region” for the following reasons:

- It provides a large enough, and complex enough group of buildings and equipment to give the new work methods and structure an adequate test.
- The North Campus location provides the best opportunity to realize logistical efficiencies through reduced movement of staff performing work (a critical source of process waste in Lean thinking).
- There exists sufficient Plant Operations space on North Campus to repurpose for the new regional maintenance group’s operations.

What will it mean for North Campus? What will be the impact on faculty, staff and students?
Near term—July through October (during the Pilot):

- FM will continue to respond to emergency and urgent maintenance needs with the same, if not improved, effectiveness we currently display.
• In some cases, it may mean a slower response time on work requests as we work through the new work management processes. It will be “messy” at times, and there will be moments of confusion during the pilot. However, maintenance work will still get done.

• It will mean a change in “customer” - FM interactions. All FM employees on North Campus will have daily work assignments/schedules and be expected to adhere to them when possible (emergencies being the key exception). The changes will mean it is harder for facilities users to get so-called “on the spot services” from FM staff (as some may be accustomed to). FM needs to build greater consistency into its work processes in order lower costs while improving performance. This may require a behavior change by some facilities users.

• It will mean that facility improvement services (“customer pay”) currently being provided by Zone shops will be delivered by Construction Services in Plant Operations. We are separating improvement activities from maintenance and repair activities in the restructuring effort. Construction Services is redoing its processes on North Campus to ensure this transition is as seamless as possible and there is limited, if any, impact on North Campus customer pay services.

Long term:
• North Campus facilities users should experience improved asset reliability (fewer things breaking, in need of repair or requiring premature replacement) and in time, less disruption to teaching, research and student activities.
• Service and performance quality of Facilities Maintenance will be maintained, and we believe improved, at a lower cost.
• We expect that as asset reliability improves, so will satisfaction with Facilities Maintenance.

The FM restructuring will result in a significant change in how Plant Operations provides long-term stewardship for the University’s physical infrastructure. This shift to an asset-centered maintenance methodology will serve the University’s students, staff and faculty best in the long term. It will, however require behavioral and process changes not only on the part of Facilities Maintenance and Plant Operations, but also on the part of facilities users and customers. These changes will be tested on North Campus, we will learn from the pilot experience, then begin a campus-wide implementation.