

University of Kansas
Changing for Excellence

Phase II Business Case Executive Summary
Facilities - Lawrence/Edwards

November 4, 2011

Experience. **Redefined.**[®]

Phase I – Facilities maintenance and upkeep

Huron identified opportunities related to facilities maintenance and upkeep at the Lawrence and Edwards campuses of at least \$1.6M.

Phase I – Identified Challenges and Opportunities

- Maintenance labor costs are nearly twice as high on a labor cost per gross square foot (GSF) basis relative to peers (benchmarked against Central Association for Physical Plant Administrators)
- Custodial staffing appears to be aligned with peers in labor spend per gross square foot (GSF) and square feet cleaned per FTE
- 90% of customers on campus are satisfied with facilities operations' overall response and completion times; however, customers desire more transparency around the pricing structure for chargeable maintenance work
- The Lawrence campus is operating three different custodial and maintenance groups on campus resulting in additional labor costs compared to its peer group
- Facilities Operations (FO) is losing approximately 60 hours of maintenance worker productivity per day by requiring workers to travel back and forth between West and Main Campuses
- The lack of accountability for performance management has reduced productivity and morale among staff
- By incentivizing faculty and staff to reduce energy consumption, the Lawrence/Edwards campuses can reduce annual utility expenditures by approximately 2% – 4%

Phase I – Identified Goals

- Consolidate the Lawrence campus' individual custodial and maintenance operations, and develop service level agreements among clients
- Increase maintenance worker productivity
- Improve FO's internal operations and procedures to provide better service to customers and increase work quality
- Institute a comprehensive utility reduction plan and incentivize faculty and staff to decrease utility usage

Phase I – Annual Financial Opportunity – Custodial and Maintenance Only

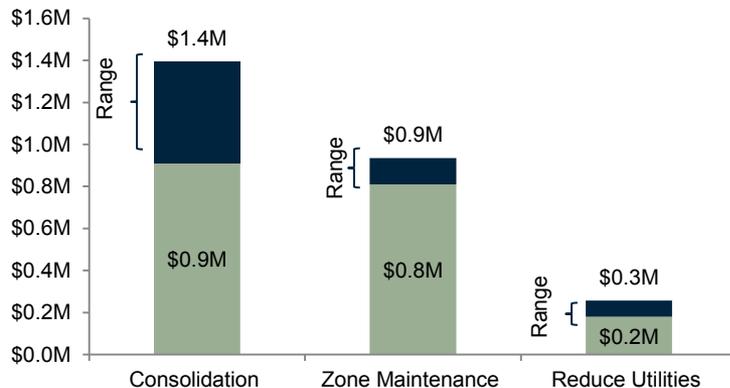
| Cost Savings ¹ | Resource Reallocation | New Revenue |
|---------------------------|-----------------------|-------------|
| \$1.38M – \$4.15M | N/A | N/A |

¹ opportunities identified in this area may overlap with recommendations identified under HR

Phase II facilities and maintenance – opportunity

Consolidation and reduction of management layers in KU FO and Housing custodial and maintenance comprises the majority of cost-saving.

Phase II Average 4-Year Annual Impact



Note: averages are over four years (years 2 – 5); year 1 is a partial year and represents ramp up

Phase II – Business Case Financial Summary

- Consolidating KU FO and KU Housing maintenance and custodial staff is an opportunity for achieving cost savings through reduced management needs and in-sourcing of contacts
- FO Maintenance levels were reevaluated in Phase II, removing workers dedicated to construction; analysis continues to indicate that KU is more heavily staffed than peers
- Implementing contemporary zone maintenance will reduce management and layers, enabling cost savings through reduction of 12-14 directors and supervisors
- Influencing energy-saving behavior through marketing and incentives is an untapped cost savings opportunity to reduce KU general utilities spending by 2 -4%

| Five Year Cumulative Impact ¹ (Expected Case) | 000s (parentheses denote costs) |
|---|------------------------------------|
| Consolidation | \$4,850 |
| Zone Maintenance | \$3,489 |
| Utility Savings | \$980 |
| Investment Requirement (total) | (\$2,683) |
| Net Benefit | \$6,636 |

¹Year 1 is FY12, which is a partial year (begins in November)

Phase II – overview

Cost savings can be achieved by capitalizing on efficiencies and achieving economies of scale.

Findings

- Recalculating FO and Housing staffing (removing construction FTEs and refining square footage calculations) compared to peer benchmarks continues to indicate an opportunity to reduce maintenance staff and consolidate operations
- KU FO has an average staff to supervisory ration of 4:1, significantly lower than best practice
- FO front-line staff are disenfranchised and suffer from low morale; this is impacting efficiency and productivity
- There is strong interest in saving utilities on campus, but few behavioral change initiatives have been launched



Proposed Solution

- Implement cultural change in FO, focused on developing a performance-based culture that engages employees in their work
- Develop a contemporary zone maintenance system with 4-6 zones across campus (including Housing zones), reducing the number of supervisors and directors needed and making staff more efficient
- Consolidate FO and Housing and maintenance staff, capitalizing on economies of scale
- Execute a energy reduction and sustainably plan to change consumption behavior on campus, providing incentives for participation



Anticipated Results

- Reducing the span of control of maintenance supervisors and directors through zone maintenance will eliminate over \$800K per year
- Consolidating FO and Housing will enable FO to provide the services housing needs at a reduced cost, saving Housing an estimated \$1.3M annually
- Reduced KU energy costs through behavioral change will save \$200K - \$400K per year

Financial model – notes and assumptions (1 of 2)

A series of assumptions were required to estimate the financial impact of implementing the facilities business case.

| Notes | Assumptions |
|--|--|
| <p><u>Zone maintenance</u></p> <p>Driven by the reduction of Facilities supervisory staff, including Assistant Directors</p> <p>Estimates based on review of current staffing and needs assessment in zoned scenario, assuming one supervisor per shop and one supervisor per zone</p> | <p>Savings from zone maintenance and energy reduction begin to accrue in FY2013</p> <p>Savings from consolidation begin to accrue in the second half of FY2013</p> <p>Excess staff positions can be eliminated via attrition and reallocation, termination for cause: estimates for voluntary retirement incentive packages or other staff reduction costs are not included in the model</p> |
| <p><u>Consolidation</u></p> <p>Driven by the reduction of both supervisory and staff positions in maintenance and custodial</p> <p>Estimates based on needs assessment for consolidated workforce by the Director of Facilities</p> <p>Also includes shared sourcing benefit of reduced contracting costs</p> | <p>KU Facilities will create between 4 and 6 maintenance zones on campus</p> <p>Current 5 FO specialty shops will remain unchanged</p> <p>Estimates for consolidation savings are based on most-likely outcomes, estimated by the Director of Facilities</p> |
| <p><u>Energy Conservation</u></p> <p>Savings based on new metering capabilities and reduction incentive program; pilot could begin immediately and full installation of meters would take approximately 3 years</p> | <ul style="list-style-type: none">• Savings reduced by 25% in low benefits case• Savings increased by 15% in high benefits case <p>Utilities conservation savings are based on a 2 – 4% reduction in general fund utilities spending (\$200K in the low benefits case to \$400K in the high benefits case)</p> |

The model provides good directional guidance on the expected savings, though detailed plans for zone maintenance, consolidation, and the resulting changes to staffing levels are needed to more accurately predict the benefits.

Financial model – notes and assumptions (2 of 2)

| Notes | Assumptions |
|---|--|
| <p><u>Organizational Realignment</u></p> <p>The cost of new positions are accounted for here:</p> <ul style="list-style-type: none"><li>• Director of Energy, Maintenance and Power Production<li>• Director of Campus Master Plan<li>• Director of Construction Services <p>While estimated costs are included here, KU could implement organizational changes without adding these positions, greatly reducing costs</p> <p>Elevated positions are assumed to receive a 10% salary increase over FY10 salaries</p> <p>Demoted positions are assumed to carry the same salary as previous</p> <p>Positions are budgeted for half of the current year</p> | <p>All salaries and cost will increase at 3% per year</p> |

Financial model – summary

Reduction of staff through Facilities-Housing consolidation and implementation of maintenance zones drive the majority of the financial benefit.

Expected Benefits Case (\$000's)

(assumes 5 zones, mid-range energy savings, and expected consolidation benefits)

| Benefits | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|----------------------------|----------------|----------------|----------------|----------------|----------------|
| Zones staff reduction | \$0 | \$834 | \$859 | \$885 | \$911 |
| Consolidation savings | \$0 | \$675 | \$1,351 | \$1,391 | \$1,433 |
| Utility reduction savings | \$18 | \$103 | \$212 | \$319 | \$328 |
| Total | \$18 | \$1,612 | \$2,422 | \$2,595 | \$2,672 |
| Costs | | | | | |
| Maximo fees | \$260 | \$18 | \$18 | \$19 | \$19 |
| Realignment/reorganization | \$160 | \$329 | \$339 | \$349 | \$359 |
| Metering costs | \$0 | \$183 | \$189 | \$194 | \$0 |
| Program officer | \$22 | \$44 | \$46 | \$47 | \$49 |
| Energy dashboard | \$15 | \$15 | \$10 | \$0 | \$0 |
| Total | \$456 | \$589 | \$602 | \$609 | \$427 |
| Net | (\$438) | \$1,023 | \$1,820 | \$1,986 | \$2,245 |

Net Present Value (Expected Benefits Case): \$6,392,900

Low Benefits Case

(assumes 6 zones, low-range energy savings, and expected consolidation benefits less 25%)

Net Present Value **\$4.75M**

High Benefits Case

(assumes 4 zones, high-range energy savings, and expected consolidation benefits plus 15%)

Net Present Value **\$7.40M**

Risk assessment summary

Change management risk presents the most significant challenge to the implementation of changes within KU FO.

- To be effective in achieving cost savings, zone maintenance must be implemented with the fewest number of zones possible and reduce the number of supervisors; this will be a significant change to the way in which work is currently done on campus
- Leadership of Housing and KU FO must be vested in the proposed changes to achieve results
 - FO leadership is implementing several efficiency solutions based on recommendations; however, there is skepticism that morale is a problem and concern that zone maintenance will reduce flexibility
 - Housing leadership is skeptical that the proposed merger will continue to provide the current level of service at a reduced cost
- There is a prevalent lack of trust and fear of change within KU FO and Housing; staff feel threatened by the change and fear job reductions
- The combined KU FO and Housing maintenance and custodial operations must provide a work environment that is focuses on providing the resources and support employees needs to do their jobs efficiently and effectively; failing to do so is a risk to morale and retention

Risk can be managed by developing critical leadership buy-in at the director level and appointing a strong champion who will push for the change that is needed.

Approach

The table below depicts the high level tasks necessary to increase effectiveness and efficiency in maintenance and custodial functions and reduce energy.

| Mobilize | Design | Deploy | Optimize |
|---|--|--|--|
| Nov. 2011 – Mar. 2012 | Nov. 2011 – June 2012 | Feb. 2012 – Mar. 2013 | Aug. 2012 – Sept. 2012 |
| <p>Tasks</p> <ul style="list-style-type: none"> • Appoint champion • Execute climate study and focus groups • Organize committees • Onboard staff • Directors of Housing and FO develop a meeting plan to outline consolidation | <p>Tasks</p> <ul style="list-style-type: none"> • Define FO core competencies and performance expectations • Develop FO training plan • Develop FO SLAs and Guide to Services • Develop HR plan • Define maintenance zones and identify space • Refine organizational structure | <p>Tasks</p> <ul style="list-style-type: none"> • Execute SLAs • Fully implement and train staff on use of Maximo • Reorganize maintenance staff around zones and consolidate supervisors • Bring housing staff into FO • Annual performance evaluations for all FO employees based on core-competencies | <p>Tasks</p> <ul style="list-style-type: none"> • Review customer satisfaction surveys • Assess FO KPIs • Asses net metering savings |
| <p>Deliverables</p> <ul style="list-style-type: none"> • Climate study and focus group results • Unit metering pilot sites on-board and metering in place | <p>Deliverables</p> <ul style="list-style-type: none"> • Updated FO employee handbook • FO vision map • SLAs and Guide to Service • Plan/timeline for FO and Housing merger | <p>Deliverables</p> <ul style="list-style-type: none"> • Improved customer expectations • Fully deployed Maximo system • Utilities savings • Consolidated Housing/FO | <p>Deliverables</p> <ul style="list-style-type: none"> • Refine SLAs and design of work based on customer satisfaction findings |

Timelines should be adjusted based on the decisions made by the Executive Committee to move forward.



Experience. **Redefined.**