

# **UT Southwestern** Medical Center

## **Capital Projects Audit**

**Internal Audit Report 19:09**

**January 10, 2019**

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## Executive Summary

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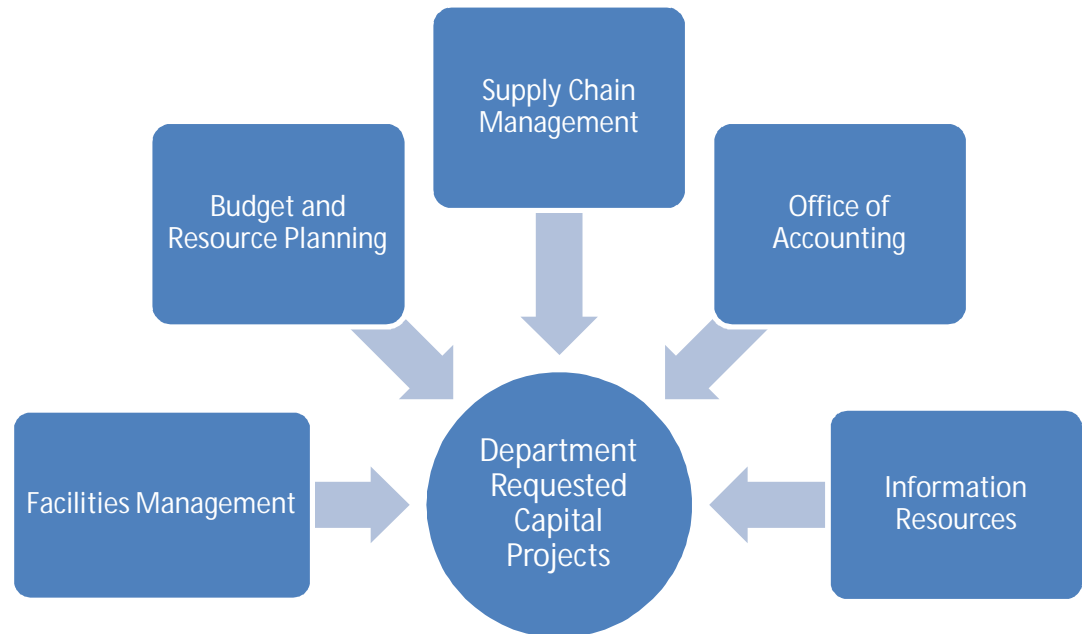
### Background

The UT Southwestern Facilities Management Department (Facilities Management) is responsible for planning and construction, facilities maintenance and operations, utilities operations, custodial and grounds services, recycling, and general business services. Its mission is to provide students, faculty, staff, patients and visitors with high-quality facilities and services through collaborative partnerships.

The Capital Improvement Program (CIP) is a six-year projection of major new construction and major renovation projects for implementing and funding from component and system-wide revenue sources. The CIP, Renovations, and Planning and Design divisions report to the Vice President of Facilities Management. The CIP division oversees UT Southwestern's capital construction projects of \$4 million or more and uses eBuilder for maintaining CIP project documentation and contractor communications. The Renovations (Renovations) division is responsible for the overall management of renovation projects with expected budgets from between \$50,000 and \$4 million. The team manages activities from preliminary planning through final completion. PeopleSoft Financials is the system used for recording budgets, expenses, purchase orders, and invoices.

The diagram to the right depicts the key stakeholders involved in Renovations capital projects.

Refer to Appendix B for a detailed Renovations project process flow.



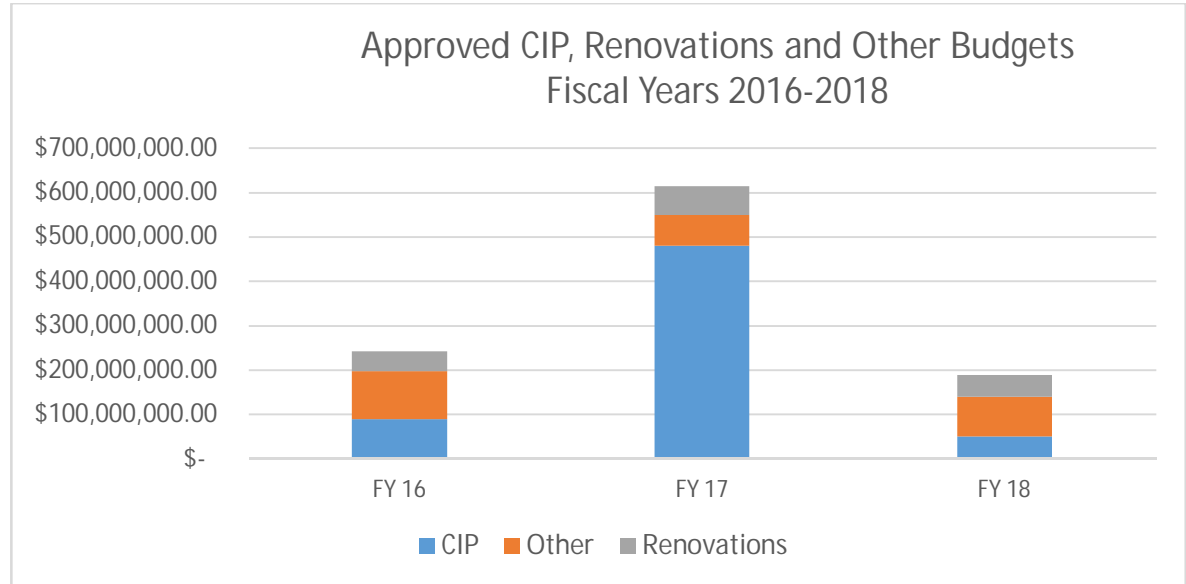
## Executive Summary

The chart to the right illustrates Capital Improvement Program (CIP), Renovations, and Other\* total approved project budgets for fiscal years (FY) 2016 through 2018.

- FY2016 - \$250M
- FY2017 - \$600M \*\*
- FY2018 - \$190M

\* Other includes information technology, furniture, and equipment project budgets

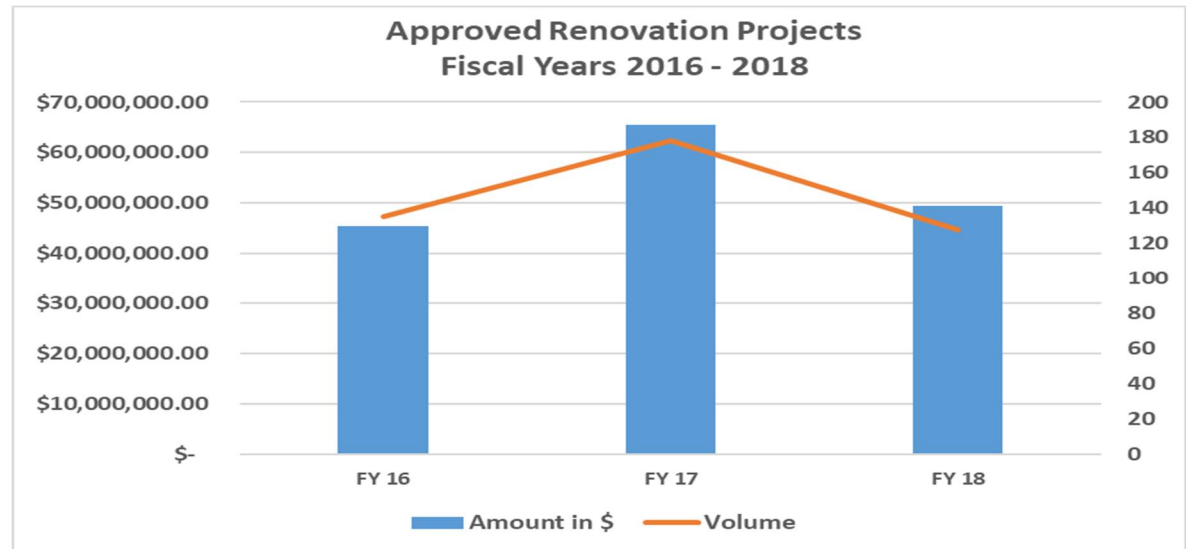
\*\* FY2017 project budget increase due to the Clements University Hospital Tower expansion project.



The chart to the right illustrates approved renovation project budgets in total dollars and numbers for FY2016 through FY2018.

- FY2016 - \$45M
- FY2017 - \$65M \*\*\*
- FY2018 - \$50M

\*\*\* FY2017 project budget increase was driven by a higher volume of total projects as well as large scale projects within Central Administration, Research & Academic areas, and Tuition Revenue Bond funded (TRB) projects.



## Executive Summary

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### **Scope and Objectives**

The Office of Internal Audit has completed its Capital Projects audit. This was a risk based audit and part of the fiscal year 2019 Audit Plan. Audit procedures included interviews with stakeholder; reviews of policies, procedures, and other relevant documents; data analytics; and substantive testing. The audit scope included FY2018 Facilities Management Renovations division activities. The audit objectives were to assess the effectiveness and efficiency of operational processes and internal controls that ensure achievement of objectives, compliance with key regulations and institutional policies and procedures, safeguarding of assets, and accuracy of reporting.

Specifically, the objectives assessed the key controls in place for:

- Monitoring of capital project milestones and financial management
- Appropriate approvals for project cost revisions and overruns
- Effective and efficient use of system tools to track and manage capital related expenditures

We conducted our examination according to guidelines set forth by the Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.

### **Conclusion**

Overall, Renovations division capital projects are managed appropriately, however, opportunities exist across the Facilities Management divisions to systematically monitor and track project milestones, performance metrics and budget to actual expenses. In addition, the Renovations division needs to more clearly define standard operating procedures and roles and responsibilities to improve communications among the process owners and customers.

At the end of FY2018, the Renovations management team implemented a new team structure designed to reduce the time from project approval to project completion and deliver more reasonable and accurate project budgets to customers, including:

- Outsourced the design function to specialized third parties to reduce the time needed to complete the design phase for projects,
- Required mandatory completeness of on-site surveys of the construction site during the planning phase to improve the project budget estimate,
- Assigned construction managers during the planning phase and incorporated weekly status updates to aid in project consistency, transparency, and communication with clients,
- Improved design and construction phase timelines through the implementation of a scope development checklist. For the first quarter in FY2019, the average time to create Total Project Cost (TPC) from a sample of four projects was 149 days when compared to 290 days during FY2018.

## Executive Summary


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Included in the table below is a summary of the observations, along with the respective disposition of these observations within the Medical Center internal audit risk definition and classification process. See Appendix A for Risk Rating Classifications and Definitions.


Priority (0)	High (0)	Medium (2)	Low (0)	Total (2)
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A summary of key improvement opportunities risk-ranked as medium are below.

### Facilities Management Observation:

-  **#1 Strengthen System-wide Capital Projects Monitoring and Reporting Capabilities** – Systematic and integrated processes for tracking, monitoring and reporting project financials and milestones are not in place. Limited or no automated reporting capabilities results in inefficient monitoring, and may lead to additional expenses, time, and unsatisfied customers.

### Facilities Management–Renovations Observation:

-  **#2 Establish Written Standard Operating Procedures and Define Roles and Responsibilities** – Standard operating procedures for renovations project managers are verbally communicated. Additionally, key communications need clear defined roles and responsibilities. Unclear roles and responsibilities, and guidelines may result in untimely and inconsistent completion of project assignments, increasing the risk of inefficiencies, excessive costs and unsatisfied customers.

Management has plans to address the issues identified in the report and in some cases have already implemented corrective actions. These responses, along with additional details for the key improvement opportunities listed above, are in the Detailed Observations and Action Plans Matrix (Matrix) section of this report.

We would like to take the opportunity to thank the department and individuals included in this audit for the courtesies extended to us and for their cooperation during our audit.

## Executive Summary

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Sincerely,

Valla F. Wilson, Associate Vice President for Internal Audit, Chief Audit Executive, Interim Chief Compliance & HIPAA Privacy Officer

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## Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
<p><b>Risk Rating: Medium</b> 🟡</p> <p><b>1. Strengthen System-wide Capital Projects Monitoring and Reporting Capabilities</b></p> <p>Systematic and integrated processes for tracking, monitoring and reporting project financials and milestones are not in place. Limited or no automated reporting capabilities result in inefficient monitoring, and may also lead to additional expenses, time, and unsatisfied customers.</p> <ul style="list-style-type: none"> <li>• Development of the project budget is not efficient. In FY2018, on average 290 days were needed to create a budget. Process improvements implemented in the first quarter of FY2019 decreased the average to 149 days.</li> <li>• Real-time budget to actual reports are available for project managers only upon request from the Office of Accounting Facilities Finance team utilizing the PeopleSoft 9.1 Project Costing module.</li> <li>• Renovations project monitoring and change order tracking is limited to using excel spreadsheets. <ul style="list-style-type: none"> <li>○ The planning phase did not include site visits and detailed architect drawings so change orders routinely were required. A review of change order descriptions confirmed the following recurring reasons:</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. Establish a systematic method to support system-wide capital project data integration that improves project transparency and accuracy, the ability to analyze data, reduces likelihood of redundant input, limits manual adjustments, and decreases discrepancies.</li> <li>2. Develop a written plan to evaluate alternative systems. Involve key personnel in this process.</li> <li>3. Establish and/or monitor project metrics such as the quality of deliverables and customer satisfaction, deliverable dates, and cost to deliver that help with aligning with regulatory requirements, making effective decisions, and improving collaboration capabilities.</li> </ol>	<p><b><u>Management Action Plans:</u></b></p> <ol style="list-style-type: none"> <li>1. The department intends to submit a funding request to either upgrade eBuilder (current project management software) or purchase a new software package to provide a platform for both the CIP and Renovations projects. The project management software will allow for more robust, reliable and flexible automated project management capabilities, including electronic storage and access to project data as well as an interface with PeopleSoft 9.2 project financial data.</li> <li>2. Facilities Management (CIP and Renovations) is evaluating a couple of project management software packages (Projectmates and Nuvolo) that will meet the needs of both CIP and Renovations. Facilities Management is currently coordinating with Budget and Resource Planning and Purchasing to assess and procure the appropriate software.</li> <li>3. Project metrics have been established, and are currently being tracked using an excel spreadsheet that is updated weekly by the project managers. Ultimately, this project data will be tracked in the new project management software. Additional metrics such as customer satisfaction will be included in the new software.</li> </ol>



## Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
<ul style="list-style-type: none"> <li>- 41% were due to additions/omissions from various factors such as changes from the planned original design drawing and no preliminary on-site surveys at the construction site.</li> <li>- 31% were due to changes to scope by the client (add, delete or relocate items).</li> <li>- 28% were due to unforeseen conditions encountered such as mold, asbestos, pipes, etc.</li> </ul> <p>Change orders were included in the improvement plan and, in FY19, on-site surveys and architectural designs were required of the construction site to improve the budgeting process.</p>		<p><b><u>Action Plan Owners:</u></b></p> <p>Director, Major Capital Improvement Projects, Facilities Management</p> <p>Director, Renovations &amp; Minor Construction, Facilities Management</p> <p><b><u>Target Completion Dates:</u></b></p> <ol style="list-style-type: none"> <li>1. May 31, 2019 - Purchase of the software is planned to occur in the next 3-4 months.               <ol style="list-style-type: none"> <li>1a. September 30, 2019 - Installation, migration of data, and implementation will take an additional 3-6 months.</li> </ol> </li> <li>2. May 31, 2019</li> <li>3. Completed</li> </ol>

## Detailed Observations and Action Plans Matrix

Observation	Recommendation	Management Response
<p><b>Risk Rating: Medium</b> 🟡</p> <p><b>2. Establish Written Standard Operating Procedures and Define Roles and Responsibilities</b></p> <p>Standard operating procedures (SOPs) for renovations project managers are verbally communicated.</p> <p>Additionally, key communications between the customer departments and the Renovations division need clear, written defined roles and responsibilities, and guidelines for the expected involvement of each party during the project lifecycle.</p> <p>Unclear roles and responsibilities, and guidelines may result in untimely and inconsistent completion of project assignments, increasing the risk of inefficiencies, excessive costs and unsatisfied clients.</p>	<ol style="list-style-type: none"> <li>1. Establish written Renovations SOPs and include clearly defined performance expectations and metrics.</li> <li>2. Define roles and responsibilities for the customer departments and the Renovations division.</li> <li>3. Provide training after the written SOPs are implemented and roles and responsibilities are established for the renovations project managers and continue refresher trainings as needed.</li> </ol>	<p><b><u>Management Action Plans:</u></b></p> <ol style="list-style-type: none"> <li>1. CIP group has developed SOPs that are in place. Renovations management is developing SOPs for the Renovations group to address all core process steps.</li> <li>2. SOPs will detail project responsibilities for all project team members and stakeholders as well as procedures for communicating these responsibilities.</li> <li>3. Training will be conducted with project managers including refresher training as SOPs are developed or updated.</li> </ol> <p><b><u>Action Plan Owners:</u></b></p> <p>Director, Renovations &amp; Minor Construction, Facilities Management</p> <p><b><u>Target Completion Dates:</u></b></p> <ol style="list-style-type: none"> <li>1. March 31, 2019</li> <li>2. March 31, 2019</li> <li>3. March 31, 2019 with refresher training within 6 months of the initial training.</li> </ol>

## Appendix A – Risk Classifications and Definitions

As you review each observation within the Detailed Observations and Action Plans Matrix of this report, please note that we have included a color-coded depiction as to the perceived degree of risk represented by each of the observations identified during our audit. The following chart is intended to provide information with respect to the applicable definitions and terms utilized as part of our risk ranking process:

<p><b>Risk Definition-</b> The degree of risk that exists based upon the identified deficiency combined with the subsequent priority of action to be undertaken by management.</p>	<b>Degree of Risk and Priority of Action</b>	
	<b>Priority</b>	An issue identified by Internal Audit that, if not addressed immediately, has a high probability to directly impact achievement of a strategic or important operational objective of a UT institution or the UT System as a whole.
	<b>High</b>	A finding identified by Internal Audit that is considered to have a high probability of adverse effects to the UT institution either as a whole or to a significant college/school/unit level. As such, immediate action is required by management in order to address the noted concern and reduce risks to the organization.
	<b>Medium</b>	A finding identified by Internal Audit that is considered to have a medium probability of adverse effects to the UT institution either as a whole or to a college/school/unit level. As such, action is needed by management in order to address the noted concern and reduce the risk to a more desirable level.
	<b>Low</b>	A finding identified by Internal Audit that is considered to have minimal probability of adverse effects to the UT institution either as a whole or to a college/school/unit level. As such, action should be taken by management to address the noted concern and reduce risks to the organization.

It is important to note that considerable professional judgment is required in determining the overall ratings presented on the subsequent pages of this report. Accordingly, others could evaluate the results differently and draw different conclusions. It is also important to note that this report provides management with information about the condition of risks and internal controls at one point in time. Future changes in environmental factors and actions by personnel may significantly and adversely impact these risks and controls in ways that this report did not and cannot anticipate.

## Appendix B – Capital Projects, Renovations Cross-Functional Process

