Empowering Facilities Teams Through Technology

By Scott Cormier

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Whereas in the past many colleges and universities have had facility condition assessments performed by third-party providers, today they are turning to modern technology to perform their own facility assessments. Dalhousie University, James Madison University, and Florida International University have adopted new processes and technology that enables self-sufficient facility teams to stay on top of pressing issues and maintain an accurate database of information.

With campuses located in the heart of Halifax and the picturesque town of Truro, Nova Scotia, Dalhousie University is a leading, research-intensive Canadian university offering more than 180 degree programs in 12 diverse faculties. Dalhousie has more than 18,000 students and 5.5 million square feet of facilities with a replacement value of $1.8 billion.

Dennis Gillis, P.E., assistant director of planning at Dalhousie, observed the challenges that come with a lack of insight into building condition. “In the past, if we weren’t actively doing work on or in a building, we had no insight into the condition of the building since its last assessment,” he said. “Only the buildings with active projects had updated information, even though the condition of non-targeted buildings was still changing.” Another result of stale data faced by the facilities team was a lack of credibility with university leadership. Said Gillis, “Questions from management were difficult to answer because we had to acknowledge that reports were based on outdated data.”

As with most universities, Dalhousie had too many projects to do and not enough funding. It needed current information in order to make strategic decisions.
Dalhousie used a combination of existing data from various sources, brought into a centralized database and facilities capital planning tool, and data gathered by its own staff to gain fresh insight. A mobile tool that guides facility managers through a standardized assessment process is an efficient and cost-effective way to keep facility condition data up-to-date. Assistant planners assign facility surveys to operational supervisors, who conduct the assessments using a data collection tool on Apple iPads® for consistency and speed. The assistant planners then review and approve the survey results, which are uploaded to the database and used to prioritize and plan projects for the next fiscal year.

Among the results is that operational supervisors feel ownership—they are the building custodians and have a very real stake in the outcome of the audits. This gives them a role in the capital planning process. Operational supervisors liked the concept of getting involved in providing information to decision makers, and the decision makers take the analysis as fact because the operational supervisors start with so much building knowledge. Gillis commented that “conducting our own assessments has enabled my team and our management to regain confidence in the data.”

One of the challenges faced by public universities is that they must abide by government regulations in order to obtain funding. James Madison University (JMU) is a public university in Harrisonburg, Virginia, and one of the top public schools in the United States. The university was founded in 1908 and has more than 19,000 students enrolled and more than 6 million square feet of facilities. JMU needed to meet mandates from the commonwealth in order to obtain funding, but also wanted to keep data current to improve decision making for its own benefit. Conducting facility assessments with existing staff lets JMU keep up with a growing facility portfolio and better comply with state mandates.

JMU divides facility condition surveys and assigns them to three inspectors, who get real-time information that allows them to address questions on the spot, and update data instantly rather than spending time in the office importing data. Charles Grimm, property inspector/assessor supervisor, has seen the benefits of a software solution for his staff. He observed, “Doing our own assessments with this guided process allows us to get ‘shop’ buy-in, and to involve those who know the facilities well.” And, when a facility employee leaves, Grimm is able to use other staff members who can easily follow the embedded process in the mobile software.

JMU’s use of a mobile tool for facility condition assessment has reduced office time from two weeks to two days, and the facility team has surveyed four times more square feet. For the JMU facilities team, this means considerably less time uploading data and more time in the field acting on the information. JMU has moved from a five-year to a three-year cycle to update facility condition information. The increased frequency of assessments provides more accurate data for potentially costly investment decisions. Grimm noted that originally it was overwhelming to keep up with the three-year cycle of assessment requirements, but moving to the mobile tool has helped them keep pace. They now collect condition data on 50 percent of their residence halls each summer.

Meanwhile, Florida International University (FIU) wanted to move to a life-cycle asset management approach. FIU is located in Miami, with 47,000 students on three campuses. FIU has 8.2 million square feet of facilities, with another one million square feet under construction.

According to Marco Benitez, director of analysis, assessment, and risk management, a life-cycle asset management approach boils down to “how we use our limited resources (people and dollars) to fix an unlimited amount of needs so our buildings don’t fall apart and the users don’t complain.” The goals for life-cycle asset management were to prioritize the right facility issues and increase planning “precision,” using the most up-to-date data to make more accurate and appropriate planning decisions; to increase funding with a reliable capital planning strategy; and to create a self-sufficient and repeatable program that supports a long-term planning strategy.

Credible capital planning is born out of having a solid grasp of the facility details, something a
self-sufficient assessment program generates. Benitez observed that all decisions are based on some type of data, and the key is, “Be at the right time in the right place…with the right information.” FIU needed to identify both immediate maintenance needs and long-term capital investments, prioritize competing requirements in a transparent and fair process and rely on data-driven decision making.

Since FIU will not be able to get funding to hire an outside firm for a facility condition assessment every year, it became imperative that the university uses existing staff to keep the most recent assessment data current. Benitez wanted a repeatable system that would instill a process of data collection and maintenance, not a one-time event. Using a guided data collection solution, he took a static process and created an ongoing way to keep data dynamic and relevant.

Benitez is an advocate of ensuring that upper management understands the benefits of a strategic facilities capital planning program. “They will see the value of being able to call and get an accurate answer in a timely manner because data is current and available,” he said.

Educational facilities departments are looking for the right approach to obtain and maintain current facility condition data—one that meets their needs and budgets. When budgets are tight, facility managers need to effectively manage their campus facilities and make smarter capital planning decisions. Yet, it is challenging to prioritize capital projects with incomplete, inaccessible, or dated facilities condition information.

Technology is transforming the way facilities managers are planning for and managing their capital investments. It enables facility staff to take control and turn data into credible, winning funding requests. Facilities managers can leverage existing facility staff knowledge with proven best-practice guidance, ensure consistent data across an entire portfolio with a standardized process, and use the latest mobile technology to improve speed and accuracy. Fresher data enables better decisions and gives facilities teams credibility. It’s also possible for facilities managers to easily set up a recurring facility assessment schedule to avoid “stale” data. Frequent updates more accurately reflect the most pressing issues, resulting in better capital planning decisions.

Facilities managers today are empowered to get the funding they need by making funding requests based on accurate data they have gathered themselves using a standardized process. Their decisions help their schools to provide the best learning environment for students, faculty, and staff.  

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