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# DIGGING OUT OF **DEFERRED MAINTENANCE**





BY JOHN RIMER

Excitingly, the facility industry continues to mature, advancing the stature of FMs within organizations. However, one key anchor impeding that progress is the aging infrastructure that exists in many facilities and the subsequent reactive maintenance it creates. This reactive firefighting is a drain of valuable personnel and financial resources, and it negatively impacts the triple bottom line and the image of facility management professionals within organizations.

In a recent survey conducted by FM360, 40 percent of respondents reported that aging infrastructure remains their biggest challenge in 2016. Deferred maintenance is often the result of many years of insufficient capital reinvestment into facility infrastructure. In these cases, management does not recognize the importance and necessity of funding equipment replacement.

This is caused by the inability of FMs to successfully sell and market the value of facilities and related services. However, nearly 60 percent of survey respondents indicated that they now have a seat at the management table or are at least making progress in that regard. Thus, now is the time to assemble and sell a plan to management that digs out of the deferred maintenance backlog and sheds the anchor holding your FM team back from success.

#### **Capital reinvestment planning**

The most effective way to crawl out of this proverbial hole is to replace the equipment that is at or beyond its useful life expectancy. For most, the capital bucket is not sufficiently large to bail out all of the assets in this category in a timely fashion. This is why FMs must be armed with a strategic,



long-range plan that will generate a consistent, manageable budget designed to refresh existing equipment, both now and in the future.

### ASSIGN CRITICALITIES

This first step in developing a capital reinvestment plan is to assign system and equipment criticalities that accurately align with the organization's overall strategy. These criticalities will assist in prioritizing the proposed capital expenditures and justifying the expense to management.

Consider the following general criticality/priority recommendations:

- **Life safety and regulatory**
- **Direct impact to production** – failure of equipment would stop production or make the space uninhabitable (such as lack of adequate fresh air or running water)
- **Indirect impact to production** – failure of equipment would not stop production but could inhibit productivity (such as reduced capacity or inability to maintain comfortable space temperatures)
- **Support equipment** – failure of equipment does not affect production and is more of an inconvenience (e.g., a bathroom exhaust fan)
- **Miscellaneous** – failure is inconsequential

Most computerized maintenance and asset management systems readily accommodate the addition of this type of data.

### CONDUCT A FACILITY CONDITION ASSESSMENT

Second, conduct a full-scale facility condition assessment (FCA) to clearly evaluate the existing condition and anticipated replacement date and costs. If an FCA has never been performed, organizations typically solicit outside assistance to generate a

baseline and to establish an initial one-, three-, five- and/or 10-year capital forecast.

However, if this is financially unfeasible, internal expertise and outside contractors can be leveraged to conduct the assessment. While this may be a bit rudimentary and require more effort on your part, the outcome should still satisfy the objective.

### SMOOTH OUT THE PEAKS AND VALLEYS

The resulting capital budget will need to be massaged to smooth out the peaks and valleys and avoid a schizophrenic budget that keeps management waiting for the next surprise. Considering the aforementioned assigned criticalities and current equipment condition, some replacements can be pushed out, while others will need to be brought forward to generate consistent, steady-state expenditures.

Forecasting at this level is critical to the success of capital reinvestment planning as the intent is to propose a consistent, manageable budget. This will likely mean that the proposed budget will be significantly higher than what has been spent in the past. However, once the initial shock has worn off, hopefully management, with your expert selling, will see the need to support the budget.

### RINSE AND REPEAT

An FCA, which is essentially a facility inspection, should be performed annually. You should be able to conduct subsequent assessments using internal resources by updating the previous year's FCA and corresponding capital forecast, and leaning on contractors/consultants for support as needed.

The end goal is to continue justification for a steady, sufficient, year-over-year budget that you can divvy out per plan (with flexibility) to refresh end-of-life assets. Use the annual updates to show senior management how the organization's capital investments are reaping benefits, including reduced corrective maintenance costs and lower facility condition indices.

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## Operational strategies

Aside from money, another strained resource for most facility organizations is personnel. The increasing exodus of retiring Baby Boomers will further this strain and the industry's ability to satisfactorily operate and maintain facilities. Already, the reactive nature of many organizations means that some facility departments operate at only 20 to 40 percent efficiency.

The deciding factor in resolving this conundrum is the deliberate migration from costly, inefficient, reactive maintenance to planned, scheduled maintenance. This paradigm shift can be easier said than done, especially for those whose portfolios are comprised of high facility condition indices; hence the need for capital reinvestment. However, we cannot and should not wait for the financial coffers to open before making a migration plan and sticking to it.

### PRIORITIZE WORK

A necessary step toward proactive FM is to prioritize planned maintenance over corrective maintenance. This can be difficult, especially if your organization normally responds quickly to customer complaints and service requests.

Facility managers and staff will have to work to adjust stakeholder expectations while selling the value of scheduled maintenance. However, the ultimate aim is to move from the “squeaky wheel” approach to a strategic, business-driven use of resources and support of the overall organization's vision and mission.

Some computerized maintenance management systems can auto-assign work order priorities based upon equipment criticality, maintenance type and frequency; however, such automation may require expensive customization. The manual alternative is to utilize a scheduler to prioritize and assign work. An administrator can be an invaluable contributor to the department by assigning and dispatching tasks, following up with customers, coordinating contractors, tracking work orders to closure, and ensuring accuracy of data entry. This will enable you to keep higher-paid laborers in the field instead of at a desk.

### SCHEDULE RESOURCES

There is no switch you can flip to transform your department from reactive firefighters to proactive practitioners overnight. Once work orders are prioritized in accordance with the organization's strategic objectives, you must deliberately distribute work to begin the transformation.

A practice that works for some organizations is setting aside resources solely to focus upon planned activities while remaining team members continue battling the flames. For example, if there are five building engineers, dedicate two of them to completing planned maintenance. As time and the program advance, dedicate three and then eventually four to planned maintenance, leaving the fifth to respond to service requests and corrective maintenance. This approach works when multiple staff with similar, or at least necessary, skillsets are assigned to one building or group of buildings.

As an alternative to dedicating personnel, set aside days or parts of days for planned maintenance. Start with reserving a day or two, then slowly add days until approximately 80 to 90 percent of time is attributed to planned maintenance. Another option to consider is utilizing outside contractors to supplement your team's internal efforts. Any of these approaches, or a combination thereof, should progress your team toward a proactive, planned maintenance program.

#### MONITOR AND MARKET PERFORMANCE

Monitoring and managing the performance of your team and the exercise of operational and capital dollars to deliver organizational value is critical to the success of digging out. Some basic key performance indicators to assist with these efforts include:

- **Planned to unplanned maintenance ratio:** Generally a ratio of 80 percent/20 percent is feasible; however, if your team is currently closer to 20 percent/80 percent, then you may want to set iterative goals as you work toward reversing that balance. Note that critical environments, such as health care, data center and manufacturing facilities, should target 90 percent planned to 10 percent unplanned maintenance.
- **Work order completion by priority:** This ensures that the most important maintenance is accomplished given existing resources. At minimum, 100 percent of priority 1 and 2 work orders should be completed on time; completion percentages for the remaining priorities can trail off based upon current conditions and resource constraints. However, the end goal is to see each of the respective percentage completions improve over time, with a delineation between planned and corrective maintenance.
- **Average backlog:** This is useful to track if your team is digging out or getting further behind. If you are falling behind or never catching up, the backlog can be used to justify additional

resources and required skillsets. Measure your backlog in days — you don't need to ensure it reaches zero, but rather keep it at bay.

As part of selling the FM team as a strategic contributor, share and publicly market this data throughout the organization.

#### Maintenance strategies

Moving your FM team toward proactive operation likely requires a review of currently deployed maintenance strategies to identify opportunities to leverage technology in lieu of staff resources.

Preventive maintenance is typically intrusive and often requires downtime, which corresponds to more labor and possible production impacts. Additionally, preventive maintenance can often introduce failure modes that would not exist had the maintenance not been performed.

This does not mean you should adopt a run-to-failure approach; rather, assess systems to determine if they are good candidates for predictive and condition-based maintenance methodologies. Both leverage technology to discern equipment condition, including performance deficiencies, and do not typically require downtime. Other technologies, such as building control systems, can and should also be utilized to trend and track equipment performance, alerting engineers not only to parameter excursions but to inefficiencies.

Facility managers are business managers; thus FMs must develop and implement plans that deliver value to the triple bottom line. The above strategies are key contributors to ensuring the success of your facility team and organization. The associated tasks may seem like wishful thinking or unattainable. However, your organization and FM team cannot afford to do nothing. The key is to start somewhere. Make a plan, sell it, stick to it and watch the change happen! **FMJ**



**John Rimer, CFM**, is president of FM360 Consulting and has 18 years' facility management experience in a variety of capacities and industries. He uses his breadth of knowledge and diverse expertise to provide a comprehensive perspective to his clients and students.

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