

Making the Case for Facility Modernization, Renovation, and Repairs

By Michael Kwok, P.Eng., MBA



Like homeowners with limited budgets and a long list of repairs, school districts often must make tough choices when it comes to deciding what building systems to modernize, renovate, or repair—or when to build new facilities.

With \$44 billion now available for states and schools under the American Recovery and Reinvestment Act of 2009, stimulus funding will lay the foundation for a generation of education reform and help save hundreds of thousands of teaching jobs at risk from state and local budget cuts. It will also help school districts make the physical repairs necessary for their campuses to thrive.

Unlike many businesses that may relocate as their needs change, most school districts have a long-term relationship with their buildings, which form an important part of their identity. As stewards of the physical plant, the institutions' facility managers are responsible for ensuring that all its facilities—including its classrooms, libraries, gymnasiums, cafeterias, and student centers—are effectively meeting the needs of their users.

Every day, facility managers in school districts must consider theoretical situations:

- How do the costs and benefits of renovating an aging administrative building compare with those of replacing it?
- Is building a new athletic center that will attract more students a top priority, or is the priority expanding facilities for research?
- If a planned project is deferred, what are the implications for overall costs and available budgets?

Whether they decide to purchase energy-efficient light bulbs or to make structural improvements to an aging school building, facility managers who are responsible for modernizing and upgrading school buildings with stimulus money will certainly have much to consider.

By regularly monitoring the condition of school facilities, which consume 20% to 30% of an institution's annual capital outlay, districts can quickly determine which improvements—whether they be modernization, renovation, or repairs—are needed most when stimulus funds become available.

The Master Plan

Most institutions begin by drawing up a master plan, which includes information about functional needs over time and how the organization's facilities portfolio will be adapted to meet those needs. Another important foundation for planning is accurate information about the current condition of facilities and their major systems, including the identification of repair, renovation, or renewal needs and their associated costs.

Detailed facility condition assessments, usually conducted by a professional assessment or engineering firm,

provide schools with detailed documentation of the existing conditions of both facility structures and all major building systems. They include detailed cost estimates for addressing all identified deficiencies and renewal needs.

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Such assessments are most appropriate when facility condition data are nonexistent, outdated, or inconsistent; when there are specific system or structural issues that require detailed evaluation; or when the organization requires detailed cost data for long-term capital budgeting. They may be combined with specialized evaluations, such as addressing energy-efficiency issues, compliance requirements, or programmatic adequacy.

These specialized assessments are valuable—and may be required—when major capital improvements that address a specific type of need are being considered. Such assessments provide the greatest level of accuracy and detail at a concomitant level of cost.

In cases where a school district has reliable data about the overall condition of its facilities, it may choose to undertake life-cycle condition assessments that focus exclusively on major building systems, documenting age, condition, and the cost and associated time line for any necessary renewals or repairs. Such an approach can help a school district identify where it can bundle capital projects for greater cost efficiency, such as roof replacements or heating, ventilating, and air-conditioning system upgrades. It can also help a district target those areas that may require more detailed condition assessments, and provide a foundation for renewal budgeting.

With accurate information about existing conditions, districts can begin the difficult task of evaluating investment priorities, triangulating based on current requirements, enrollment projections, and programmatic requirements. Benchmarks, such as those for facility and system condition and capital expenditure per student, can assist school districts in beginning the prioritization process.

One widely used benchmark is the Facility Condition Index, which compares the repair costs of a structure with its total replacement value. For example, a school building that has a replacement value of \$5 million and current repair and renewal costs of \$500,000 will have a Facility Condition Index of 0.1 (the higher the index, the

poorer the condition of the building). Benchmarks can be applied to an entire building portfolio or a specific system within the overall organization.

Looking Long Term

Implementing a strategic capital planning approach enables school facility managers to break out of a common “build-neglect-build” pattern. Many districts try to solve rapid enrollment and room shortage issues by constructing new buildings—at great expense to the surrounding community. Often, these new buildings look only to the short term and do not take into account student enrollment 10 years hence. Furthermore, the new construction project monopolizes limited dollars that may have been better invested in renovating an existing structure, leading to a cycle of build and neglect as buildings fall into disrepair.

By considering overall long-term investment needs—both capital and operational—schools can break out of this pattern and better make the case for needed funding. Construction and building repairs become long-term investments, instead of quick fixes to Band-Aid larger problems.

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Maximizing facility investments and reducing and justifying capital costs with capital planning and asset management solutions enable school districts to collect reliable, accurate, and current facility condition information in a centralized database—providing a single view of facility condition information for accurately calculating the costs and developing budgets for the maintenance and upkeep of all their buildings and infrastructure.

By demonstrating an in-depth understanding of current facility conditions, school districts can create convincing arguments for stimulus funding to address rapid growth and outdated school buildings and to position themselves for long-term success. Taking advantage of available stimulus funds will require smart planning, preparation, and management to ensure that school buildings in need get the appropriate upgrades, repairs, and renovations.

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