

Integrated approach to buildings pays dividends

SAVINGS CAN SNOWBALL

As business rushes headlong to ever-increasing efficiencies and easy money becomes as rare as a wallaby in Wyandotte, wise investments in building operations are still offering big payoffs.

That's the message of Alan Whitson, veteran facilities manager, who contends building owners can reap returns that would tempt Wall Street if they pay attention to a building's operational costs, not just its purchase price.

His approach? Look at how building construction, maintenance, materials and systems interact with one another — and how small improvements in one area can snowball and yield significant gains.

The buildings' value is connected to any savings an owner can bring to his operations, he points out.

"Every decision nowadays is driven by some kind of a financial analysis," Whitson said at the recent Future Space conference, held at the Southfield Marriott. "When you start out with a project, there is a tremendous focus — almost exclusively — with how much does the building cost."

The Future Space conference was held by the Corporate Realty, Design & Management Institute, based in Portland, Ore., and was designed to inform building owners, and property and facilities managers about the latest trends in building management.

That's a mistake, Whitson says. The average construction cost for an office building today is \$125.42 per square foot, a mere shadow of the \$441 per square foot it costs to operate it over 40 years. With the right re-investments, a building can easily trim the operational figure.

By cutting operating costs, they increase their rates of return, improve price-earnings ratios, boost their stock prices — and inflate the value of their stock options. For building owners, the financial terminology is a bit different, but the principles remain the same. The big payoff is an increase in the building's value.

Yet despite the potential rewards, maintenance, renovation and reinvestments remain afterthoughts. This attitude is deeply ingrained in human

nature. That is why Harvard, that pre-eminent seat of American brainpower, was smart enough to start pricing the endowments for their campus buildings in a different way. Donors get their names on buildings only when they fund both a building's construction and its 30-year operating costs.

Otherwise, the university administration would face the thankless task of convincing a donor to endow something as mundane as a heating duct or new carpeting — obviously not kind of thing most wealthy alumni want to be remembered for.

"In New York, 51 percent of all bridges in the state are structurally unsound. Why? Because people don't want to maintain them."

But maintenance makes a difference, as does the right product or service. "I have never seen anybody fired for buying a roof that doesn't leak," he says. "I have seen lots of people fired for buying roofs that did leak."

"Roofs cost only five to ten percent of the cost of buildings, but something like 60 to 80 percent of all litigation. It has to do with water infiltration into your building."

Consider the example of carpeting costs. By switching from low-grade carpet at \$15 a yard to high-grade carpet at \$22.50, you extend its life from four to seven years. But if you have it maintained at the highest level of maintenance — which would cost 10 cents per square foot per year — the life of the carpeting can be extended past 10 years.

So, for a 60,000 square foot building, your maintenance costs work out to \$60,000 over a ten-year period. Your 10-year carpeting purchase costs, with maintenance, works out to \$210,000, while your outlay for the cheaper carpeting without maintenance, would have been \$300,000 (or about \$100,000 per installation) for the less expensive variety.

Your outlay would be \$100,000 less over 10 years, and, even on prorated basis, you still save a minimum of \$50,000.

"I see carpets that have been properly selected for the area and color scheme, and are properly maintained, that are going on 17 years," Whitson says.

This type of cost-cutting is the primary way that owners will be improving their returns in coming years. In today's



extremely competitive environment, the only alternatives are to ask tenants to pay more rent — or to reduce operating costs. Given the unlikelihood of tenants volunteering to pay extra, slashing operating costs is the owners' only choice.

"That is why you always hear COO's and CFO's say, 'cut costs, cut costs,' because that is the easiest way to increase value," says Whitson. Commercial buildings are like corporations in this regard.

"Let's put some numbers to it," says the Newport Beach, Calif., consultant. "Let's see what happens when we cut operating costs just 50 cents a square foot" from the typical building worth about \$125 a square foot.

A lighting retrofit program costing \$1.25 a square foot would trim 50 cents from the average annual cost of lighting in the typical building today, he says. A

retrofit lighting program would represent a 40 percent return on investment and increase the value of the value of the building by \$6.45 a square foot.

That increase in value results from lower operating costs and higher income — exactly the kind of computation that stock analysts make when they compute the true value of a publicly traded corporation.

Assuming that building valuation works approximately like stock market valuation, every dollar of earnings yields some multiple in price. If building values resembled the Standard and Poors 500, a one dollar increase in earnings would yield \$26 in total business value. For the typical building valued at about \$124 a square foot, that works out to a \$6.45 per square foot increase in building value.

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Even at less than astronomical price-earnings ratios, this savings approach is likely to be worth pursuing.

Buildings in the San Francisco area can vary as much as 90 cents a square foot in utility costs, Whitson says. Using Standard and Poor's price earnings ratios for a 100,000 square foot building, that translates into a difference in building value totaling \$1 million or more.

Those high efficiency lighting options already exist, Whitson says. One example is the T12 fluorescent bulb now on the market.

The biggest savings result when owners look at their buildings as integrated systems. As that \$1.25 per square foot investment in lighting lowers the building's electric bill, it also lowers the heat load that lighting generates, reducing air conditioning costs. "What is really

interesting is that only about 20 percent of the energy going into fluorescent lamps actually is producing light. About 80 percent is producing heat."

Similarly, Whitson says building owners can push the 50 cent savings (from more efficient lighting) to 90 percent or more by simply using occupancy sensors to turn off the lights when rooms are unoccupied for a specified period of time — say 45 minutes.

"I travel all over the country, and I am amazed when I look out and see that all the lights are on in all the office buildings. A lot of people must be working really late."

At the National Atmospheric

Research Center in Colorado, Whitson says, lights used to be on an average of 10 hours a day. After the center put in occupancy sensors and gave employees dimming controls — basically a remote control device for dimming the lights — the lights were on an average of three and a half hours a day. It turned out that people used as much light as they needed — and not a watt more.

"They allowed the people to dim the lights at their leisure," he says. "It's amazing: If you treat everyone like adults, they will act like adults."

"The fastest growing area for electrical consumption in the United States is office equipment," he says. "Most of

your computers are on nine hours a day, and only used four hours a day. Thirty percent of them are left on overnight. Power strips that have occupancy sensors are the answer...They are so effective that Microsoft bought 10,000 of them."

By reducing light and utility loads, owners can right-size the building's engineering costs, saving thousands when the replacement of equipment becomes necessary.

"It is the integrated building systems approach," says Whitson. "Each time you affect one part, you affect another part."

—By Gary Hoffman

COMMENTARY

Integrated approach pays dividends

Our Office and Industrial Focus, which starts on page 10, has a report examining how lightening light and utility loads on buildings can produce returns for building owners "that would tempt Wall Street," according to Alan Whitson, a Newport Beach, Calif. consultant. The message from Alan, a veteran facilities manager, is that building owners should pay attention to a building's operational costs, not just its purchase price. The buildings' true value is connected to any savings an owner can bring to his operations.

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That's a mistake, Whitson says. The average construction cost for an office building today is \$125.42 per square foot; a mere shadow of the \$441 per square foot it costs to operate it over 40 years. With the right reinvestments, a building can easily trim the operational figure.

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Value can be found in likely places, such as trimming light and computer usage when not in use.

Walking though the Loop at night it is a wonder why so many buildings are light up like Christmas trees. Chances are there is not that many people working late.

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The experiment showed that bringing the employees directly into the operations side of the building will go along way in find other avenues for cutting costs.

Since value is the main concern, more attention should be paid to the operation side of buildings and its place in increase its value.

We at the *Illinois Real Estate Journal* would like to welcome Danielle Anderson, our new staff writer. A Northwestern University graduate, Anderson comes to us from *Fire Chief* magazine where she served as associate editor. Armed with considerable talent and an eagerness to write, she is an excellent addition to our staff that is committed to bringing you comprehensive coverage of the commercial real estate industry in Illinois.

Brian T. Sutton
Editor