Turning Green into Gold

Win Your Design Case by Focusing on Value, Not Cost

by B. Alan Whitson, RPA

Many overlook an important point when discussing construction costs: a building's value is not directly tied to construction costs. Failure to understand that is causing plenty of damage in presenting the case for green buildings when beginning the design process. Let me explain.

Most projects are built for the budget that was established at the beginning of the project. If your construction budget is $125/sq.ft., you spend a $125/sq.ft. plus or minus a few bucks. If it's $275, you spend $275 give or take a dollar or two.

The first barrier to green design was the perception that it cost more than traditional construction. But this perception was based upon false assumptions and data that was vague and lacking in rigor. Then **Davis Langdon** published a report "***Examining the Cost of Green***." Davis Langdon found there was no significant difference in the construction costs for LEED-seeking and non-LEED buildings in any of the categories they studied. Unfortunately, the perception that green costs more still exists.

How much value did you get for the money you spend?

Environmental advocates must, therefore, bring to bear another, and perhaps more important, argument by rephrasing their proposals, not in terms of cost, but by asking the question, "How much value did you get for the money you spend?"

How do we express value? More often than not, we use costs as a way to gauge value; that is, you get a building with "these" specifications for a stated price. Alternately, we might use a system of grades such as "Good, Better, and Best," or a system based on numerical rankings, "on a scale from one to ten, etc." Recently, in the area of sustainability, USGBC has combined a system of points and grades to create a scale such as the one used by the LEED rating system: "Certified, Silver, Gold and Platinum."

Here's how the real estate industry places value on buildings: (Oper. Inc. – Oper.Exp.)/ Cap. Rate

That's progress, but here's how the real estate industry places value on buildings. The most common appraisal method used to value income-producing real estate is an approach called *income capitalization method*. The appraisal process begins by establishing the project's net operating income **(NOI)**. NOI is the total income from the building minus operating costs but not any debt service. The next step is to divide the NOI by a *capitalization rate* (also called "cap rate"). The *capitalization rate* is a market based interest rate that is equivalent to a free-and-clear return on investment.

The result of this step is the building's economic value. Note that a building's value is not directly related to its construction cost. The three components that impact a building's value are income (rent), operating expenses, and capitalization rate. [(Oper. Inc. – Oper. Exp.)/ Cap. Rate]

Income or rent is a function of the marketplace. While the rent for one building may be more or less than the rent for others, it typically fits into a "market range." Clearly, the quality of location, design, and construction comes into play here. As a rule, better buildings rent at the top end of the market range, lease up quicker and have lower vacancies rates. Similarly, capitalization rate is generally outside of the control of the owner, designers or building operators.

the variable that can be controlled in any given market is operating costs

There is a variable that can be controlled in any given market, however: operating costs; these can vary 30 to 40% or more for similar buildings. Designers and building operators share accountability for this. Often higher operating costs were designed and constructed into the building. On the other hand, well-designed and properly operated buildings are cheaper to run and therefore are worth more money (i.e., have greater value) than their peers. For example, there are numerous buildings across the county where the annual energy costs are a $1.00/sq.ft. less than the building across the street.

Let's look at a case where a building's annual energy cost could be reduced by $0.50/sq.ft. The investment is $1.25/sq.ft. The simple pay back period is 2.5 years. This falls into that gray area where many architects, engineers and owner repre-

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sentatives would pass on this solution.

But what if we examine this from the perspective of value added rather than the cost. Using the income capitalization method, that $0.50 in savings falls directly to the bottom line increasing the NOI. Dividing the $0.50 by a 7.75% capitalization rate, the value of the building increases by $6.45/sq.ft. The return on investment ($6.45/$1.25) – 516%! Literally we are buying ten-dollar bills for two bucks.

where do we get the $1.25, since it's never in the budget

At this point somebody always asks where do we get the $1.25, since it's never in the budget. Here's how that pencils out. The building's value has increased by $6.45 per square foot. The permanent lender is welling to lend the owner 75% of the building's value or an additional $4.84/sq.ft. The investment is $1.25/sq.ft., which leaves the owner $3.59/sq.ft. to do something else with. The loan amount of $4.84/sq.ft. amortized over 30-years at 8.25% interest rate requires $0.44 in payments per year. The payment is covered by the $0.50 in reduced energy costs yielding a 1.14 debt service coverage ratio.

Clearly this is a case where good design is adding value faster than it adds cost.

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(This column is published in conjunction with the Corporate Realty, Design & Management Institute and the Center for Sustainable Real Estate. Click on www.squarefootage.net for a seminar schedule, books, and white papers on sustainability and high performance buildings. Alan Whitson's latest book, *Interior Fit Out – Guidelines for the High Performance & Sustainable Workplace* will be released this Summer. Moving, expansion, and consolidation will be covered in the new seminar series, *TI's/Interior Fit Out: New Rules for 2005.* You can contact Alan Whitson at awhitson@squarefootage.net)

Material of the Week

MC# 5173-01
Dye for anodized aluminum

Dyes for incorporation into anodizing baths to color aluminum surfaces. These homogeneous dyes have rapid adsorption onto anodized aluminum and maintain the surface nature of the aluminum (unlike other coating processes). Over thirty colors are available as well as a range of blacks. Some of these dyes are only recommended for interior use. Current applications are for architectural aluminum coloring as well as for coloring of other anodized aluminum products for automotive, electrical appliances and consumer goods.

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