

#02 Total Cost of Ownership Saves \$

Are you wasting 85% of your building's total costs?

Key Points

» Reduce total cost, not just construction costs

» Use existing tools to save operating costs with good design.

Executive Tips

» Demonstrate the impact of efficiency with numbers over the life of the building.

Traps to Avoid

» Don't focus on the initial construction cost.

Initial costs represent only 15% of a building's total cost.

If you ignore this when developing a building are wasting the other 85% of costs. Keeping the initial capital cost as low as possible seems right, but it's costing you a lot more over the life of the building.

The problem is visibility. The initial capital cost is the most visible part of the decision making process. The long-term high cost of bad decisions is seen only after the building is occupied.

Visibility into the total cost of ownership is one way to address this. Justification and decisions should be based on the total cost of ownership, not just initial costs.

By estimating the total cost of operating over the life of the facility and use this information as part of the budgeting and decision making process to arrive at a better decision that includes more up-front funding to design and build a more efficient building.

Reducing Total Costs through design and construction

Reduce total costs by building operating efficiency into the design and construction using existing techniques, many of which are well developed. Build these techniques into the initial schedule and budget and use the results, along with related financial analysis, to justify increased construction costs that reduce ongoing costs.

Multi-disciplinary approach to design

The design of the building has an impact on ongoing costs. Many are disciplines involved in the design, usually led by architectural considerations first, followed by the design of

systems by mechanical, structural and electrical engineers to name a few.

Involving the full range of disciplines throughout the design using a team approach rather than an architect led approach enables better integration of the disciplines and ensures the best solutions drive the design rather than the design driving the solutions.

Green Initiatives

Green buildings are expected in the current economic and political climate. Green standards and initiatives often result in higher initial cost but result in lower ongoing energy costs. This is socially correct while lowering the total cost. When justifying the increased cost, be sure to take the full benefits of energy reductions from all initiatives into account under the banner of green initiatives.

Facility operations input in design

Ongoing costs are up to 85% of the total costs of ownership so it's critical to involve operations in the process. This may be internal resources, consultants or service providers. Involving service providers for janitorial, grounds, maintenance, guard services and other services will provide guidance on design elements that reduce operations costs.

The earlier decisions are made during the design phase, the easier they are to include in the final design. Include the facility operations input from the start.



Get Results.
Get Attention.
Get Ahead.

Total Cost of Ownership Saves \$

Life cycle costing

Life cycle costing analysis takes four key cost components into account to determine the lowest total cost of design alternatives. This economic analysis takes a component by component approach to the initial cost, maintenance costs, energy costs and replacement or renewal costs of the equipment over the building life.

This technique can be used for a design/build tender to achieve the lowest total cost, not just the lowest initial construction cost. Require lifecycle costing analysis by a third party with each submission and use it as a basis for final selection along with the initial cost.

Value engineering

Closely related to life cycle costing, value engineering goes beyond financial analysis and assesses the design, including materials, equipment and functional requirements. The intent is to eliminate or modify elements of the design that are not required to achieve the functional requirements or add unnecessary costs.

partment comfort, performance and functionality.

Value engineering drives design and equipment selection alternatives and life cycle costing will then analyze the total economic impact of those decisions.

Commissioning

Construction should to be validated against the design specs. Payback on commissioning costs for energy alone is 4.8 year. This has a huge impact on the total benefits over the building life.

Commissioning verifies the systems installed meet the original design criteria through testing and documentation, conducted by third party during the construction phase.

Commissioning should include functional performance testing as well as documentation of the design intent, operating parameters and sequences. This can include developing system operations manuals to provide guidance on efficient operations for the facility staff.

The facilities operations staff should be involved and receive training on the systems. Since the cost of operations are the largest part of the total cost of ownership, providing operational staff with the knowledge to operate the facility efficiently is critical.

Corporate Facilities presents a unique opportunity to focus on the total cost of ownership rather than simply the initial cost. The long life and ownership of a typical corporate facility makes this stewardship even more important.

It is engineering in the broader sense, including not only quantifiable elements like equipment and materials, but also non quantitative items such as productivity, aesthetics, occu-

Notes:

Lower Total Costs

Analyze spend, procure effectively, assess & consolidate suppliers, reduce waste.

Improve Efficiency

Assess operations, use systems effectively, get information for decisions, establish procedures, plan & implement strategies.

Enhance Services

Better customer service, trained staff, effective communications, manage work better, get feedback.

Contact Us

Ask how our Facility Advisory & Consulting services can help you get results.