The Cost of Green -
And Everything Else

Or . . .

How to stay green in the current market
The Cost of Green – And Everything Else

• The Cost of Green

• The Cost of Construction

• Suggestions
Cost of Green

Costing Green:
A Comprehensive Cost Database and Budgeting Methodology

DAVIS LANGDON
Lisa Matthiessen
Peter Morris
What does green cost?

**How much more does green cost?**

**Compared to:**

- The project itself, without the green elements
- Similar projects
- The project’s original budget
Feasibility and Cost of Green Elements

- Some elements have no cost
- Some elements are embedded in the project design or program
- Some elements have identifiable cost
Cost of Green

Comparable Buildings - Davis Langdon Knowledgebase

- 60 projects actively seeking LEED
- 46 in three program categories:
  - Libraries
  - Laboratories
  - Academic Buildings
- 94 Control (non-LEED) projects
- Normalized for time & location
Cost of Green

Cost Analysis: Similar Buildings - Libraries
Cost Analysis: Similar Buildings - Libraries

Cost of Green

- Libraries

Cost Analysis: $0/SF, $50/SF, $100/SF, $150/SF, $200/SF, $250/SF, $300/SF, $350/SF, $400/SF
Conclusion

No statistically significant difference between LEED-seeking and non-LEED average costs for similar program types

- Large variation in costs of buildings
- Cost difference due primarily to program
- There are some low cost and some high cost green buildings

You cannot budget a building on averages
Cost of Green

Of the 60 actively LEED-seeking projects:

- Over half received no supplemental budget to support sustainable goals
- Of those that received additional funding, the supplement was typically in the range of 0 - 3%
- Some projects received substantial supplements
- Supplemental funding was usually for specific enhancements, most commonly Photovoltaic Systems
Cost of Green

**Analysis Conclusion:**

- Some LEED points cost money
- People are building LEED within the same cost range as non-LEED
- People are building LEED within established budget parameters

People are achieving LEED by making choices
Cost of Construction

- **The Immediate Issue**
  - Natural disasters
  - Material cost volatility
  - Bid market disruption
  - High volume of construction work
  - Regulatory climate

- **Upcoming Issues**
  - Long term construction demand
  - Increasing cost of money
  - Shortage of labor
  - Global economy
Market Disruption

The reality:

• **Volatility is a bigger issue than price increase.**
  • Bidders can not lock in prices at bid time
  • Delivery schedules are extended
  • Bidders pay premiums to expedite supplies
  • Bidders double & triple book orders compounding shortage
  • Contractors are nervous

• Sub Bid premiums can reach 200%
5th Annual UC/CSU/CCC Sustainability Conference

Cost of Construction

Vendor | Subcontractor | Owner
--- | --- | ---
$0 | $2,000 | $16,000
$2,000 | $4,000 |
$4,000 | $6,000 |
Cost of Construction

Vendor: 50% Vendor, 50% Vendor
Subcontractor: 70% Subcontractor, 30% Owner
Owner: 100% Owner
Cost of Construction

Construction Volume

The reality:

- Construction activity in the region has been strong for many years.
  - Competition for construction workers is very high, especially for skilled workers and superintendents
  - Limited supply of qualified contractors & sub-contractors
  - Quality & performance suffer
Construction Employment Percent Change - Region 9
(Arizona, California, Hawaii, Nevada)
Regulatory Climate
The reality:
- Natural disasters are likely to increase the regulatory burden
- High volume of construction delays approvals
- Regulations tend to increase over time
Managing Escalation

Escalation Summary

**Big Issues**
- Busy Contractors
- High degree of uncertainty/risk

**Not so Big Issues**
- Natural Disasters
- Material & Labor increases

Escalation impact is selective & variable
Managing Escalation

What can be done?
Recognize reality

- Materials prices are not going back
- Bidders have plenty of options, & may not be very interested in your projects
- Material prices are going to be volatile for some years
- Most contracts transfer the price risk to the subcontractor
Managing Escalation

What can be done?

Face reality

• There is a limit to available accuracy
• Uncertainty is here to stay
• We have to be smarter in what we do
Managing Escalation

What can be done?

Speak reality

- We have to communicate the truth to project teams
- Speak early, speak often
- Stop hiding behind
  - China
  - Katrina
  - Oil
  - US Exchange rate
Managing Escalation

What can be done?
Tackle reality

- Material price volatility
- Contractor capacity
- Labor availability
- Core escalation
Conclusion:

- There are several inflationary factors at play

- Virtually no published index will pick these factors up

- Inflation will be higher and less predictable

- Quick & innovative responses are needed if the quality of construction is to be maintained.