Going Green in Community Development

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What Is Green Affordable Housing?

Environmental
- Resource Efficient
- Healthy for Occupants
- Less Expensive to Operate
- Durable

Social

Financial
Examples of Programs with New Green Emphasis

• LIHTC
• HUD’s Mark to Market Program
• Local development guidelines
• New state and federal policy
Sustainable Communities

- Physical environment
- Income and wealth creation
- Economic activity
- Quality education
- Livable, safe and healthy communities
What We Know About Greening Affordable Housing

Cost of Greening
(as % of total construction costs)

Mean: 5.29%
Median: 3.83%
Range: -25% to 38.94%

(11 of 16 cases under 5%)
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

*Use 30-50% less energy than code buildings to heat and cool*
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

Use 20% less electricity
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

Are healthier to live in
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

Are quieter, have better lighting and are more comfortable
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

Are more durable
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

Recycle demolition and construction waste
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

*Use 10-20% less water*
What We Know About Greening Affordable Housing

For 5% or less, we can make buildings that:

*Use recycled materials in construction*
Importance of Data Collection

Measuring Cost/Benefit:
A. Project Decisions
  • Energy and water conserving
  • Healthy, improved IAQ
  • Durable
  • Siting
  • Materials
Measuring Cost/Benefit

B. Global Warming/Environment
C. Operations/Ownership Costs
D. Risk Mitigation
Why Measure Cost/Benefit?

- Energy Budgets: 25% of operating budget and climbing
  - w/ annual 10% increases: >30% in 5 years
  - w/ annual 20% increases > 40% in 5 years

- Similar for water & sewer in high costs areas
Why Measure Cost/Benefit?

Mitigate Risk of Rising Operating Costs
  • Energy & Water
  • Maintenance
  • Turnover Expenses
  • Owner Costs

Trade uncertain operating costs for more predictable costs
Why Measure Cost/Benefit?

E. Public Policy

F. Financing
How We Measure Cost/Benefit

- Compare life cycle costs of green building feature versus comparable feature
  - Total development costs
  - Operating costs (utilities, maintenance)
  - Replacement costs
- Consider first costs and life-cycle costs
- Inflates operating costs to account for inflation and cost increases
- Discounts future costs and savings to account for time value of money
How We Measure Cost/Benefit

Need first costs and estimates of operating costs
How We Measure Cost/Benefit

Sources of Data
- Contractor/Estimator
- Energy Model
- Project Experience
- Vendors
How We Measure Cost/Benefit

A Note on Assumptions

• Time frame
• Inflation and Cost of Money-Energy Inflation
• Borrowing additional funds to pay for green
Measurable Aspects of Design

- Energy and Water
- Reduced Maintenance
- Deferred Replacement Costs
- Transportation
Measurable Aspects of Design

Difficult to Measure

- Health
- Non Project Environmental Benefits
- Community Benefits
Why Doesn’t This Happen on Every Project?

- Inexperience
- Not expected by financers & regulators
- Failure to “Think Green” Early
- Poor Team Selection
- Key Decisions Made **Before** Goals Set
- Lack of Integrated Design Approach
What Makes for a Successful Green Project?

- Develop a vision of the project that combines *programmatic* purpose, building *design* and building *performance*.

- Expect and demand green and other project goals.
Standards

Is there value in a rating?
LISC Green Tools

- Green Loan Fund for predevelopment
- Green Physical Needs Assessment and Rehab Manual
- Sustainability Roadmap
- Coordination of local trainings
Despite the Learning Curve, Green Does Happen…

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Questions & Contact

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