



Creating Better  
Places to Learn!



# What is “Green Design”?

Design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five broad areas:

- Sustainable site planning
- Safeguarding water and water efficiency
- Energy efficiency and renewable energy
- Conservation of materials and resources
- Indoor environmental quality



# Benefits of Green Buildings

## Environmental benefits

- Reduce the impacts of natural resource consumption

## Economic benefits

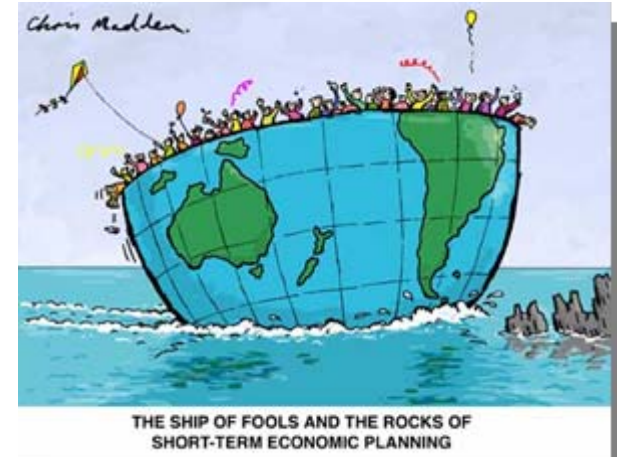
- Improve the bottom line

## Health and safety benefits

- Enhance occupant comfort and health

## Community benefits

- Minimize strain on local infrastructures and improve quality of life





# Sustainable Sites





# Sustainable Site Planning Strategies

- Thoughtful Site Planning
- Bicycle Friendly / Separation of Traffic
- Shared & Right-Sized Parking
- Preservation of Open Space/Natural Habitat
- Reduce Impervious Cover
- Reduce Heat Island Effect



# Sustainable Site Planning Strategies

- Minimize Development Footprint
- Storm Water Management - Stowe
- Landscaping & Irrigation
- Light Pollution Reduction
- Erosion Control



# Water Efficiency





# Water Conservation Strategies

- Water-Optimized Urinals
- Sensor Operated Low-Flow Lavatories
- Minimize Irrigation & Xeriscape



# Energy & Atmosphere





# Energy/Atmosphere Conservation Strategies

- Outperform Energy Code
- High Performance Mechanical Systems
- Natural Daylight Harvesting
- Occupancy Sensor Controls
- High Performance Airtight Envelope/Glazing
- Shade glass from direct sunlight
- High Performance Lighting
- Ozone Protection



# Material & Resources





# Material and Resource Conservation Strategies

- Use of Regional/Indigenous Material
- Products with Recycled Content
- Products from Renewable Resources
- Recycle within the School
- Recycle the Construction Waste
- Choose Products based on Life Cycle Assessment
- Building Re-use



# Indoor Environmental Quality





# Indoor Environmental Strategies

- Meet ASHRAE Requirements
- No Tobacco Use
- Fresh Air / CO2 Monitoring
- Low VOC Interior Building Products
- Optimize Natural Diffused Daylight
- Maintain Views to Exterior
- Optimize Classroom Acoustics



# Innovation in Design





# Innovative Design Strategies

- Flexible Space / Flexible Place
- Stakeholder Input Design Process
- Outdoor Classrooms
- New Urbanism Planning Concepts
- Interactive Teaming Areas/Neighborhoods
- Campus-Like Environments
- “Patio” Concept

# Green Schools Make Sense / Cents



Understand the hidden connections between energy, climate, water, agriculture, transportation, security, commerce, and economic and social development, then you can often devise a solution to one problem (such as energy) that will also create solutions to many other problems at no extra cost. - Rocky Mountain Institute