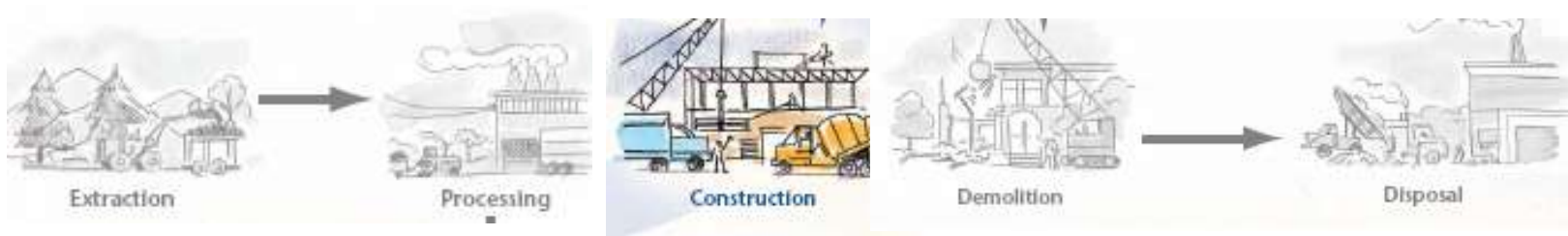
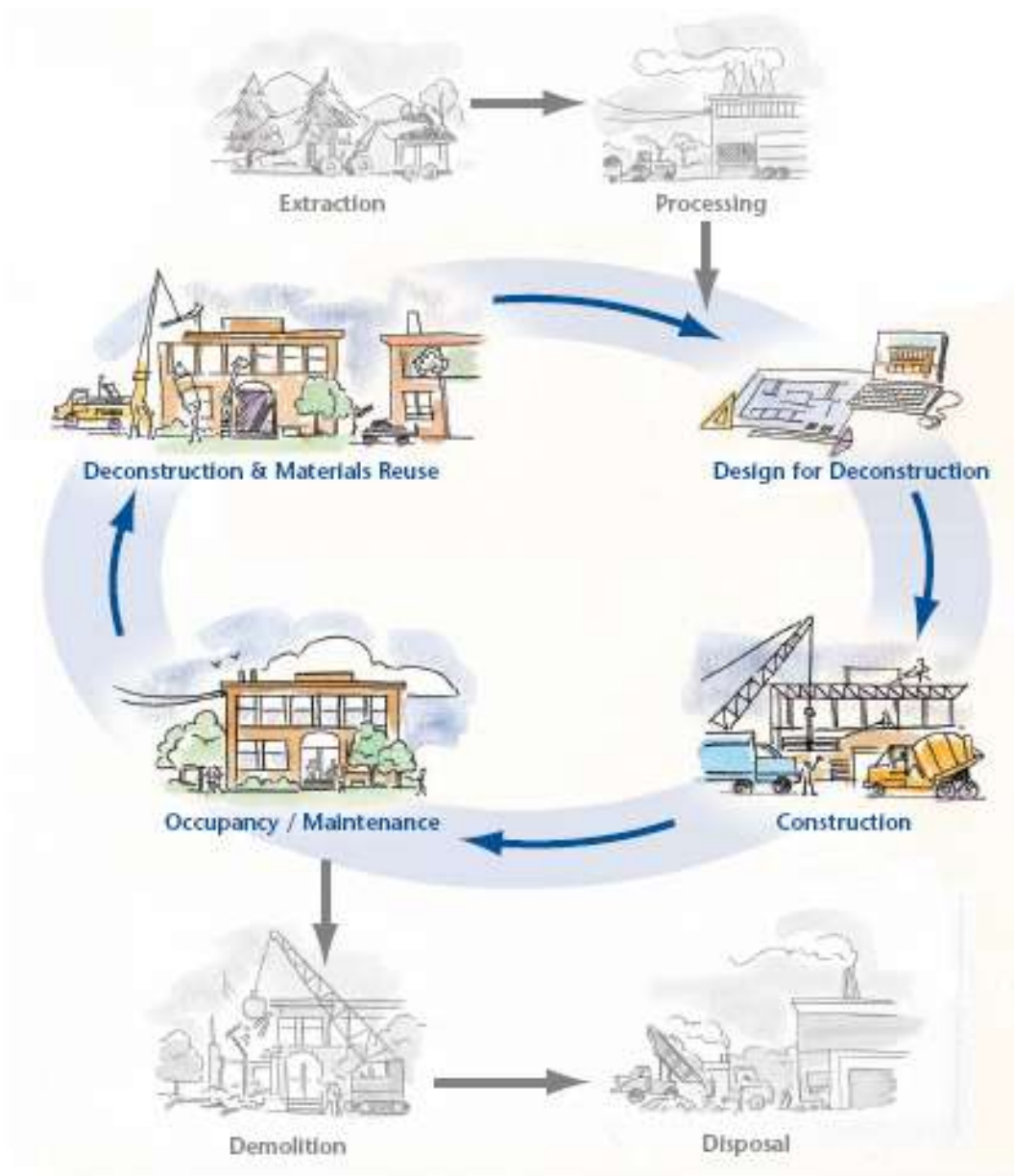


# Green Building Roundtable:

Design for Reuse:  
Sustainable Building and Deconstruction  
January 28, 2011





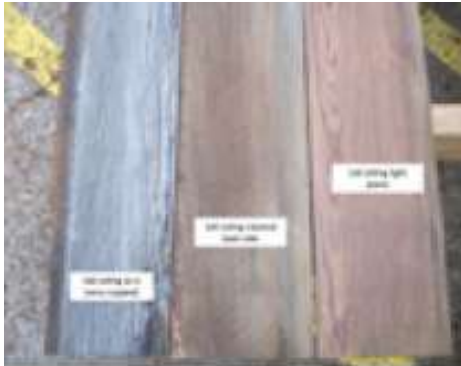


# Reuse vs. Recycled

- Significant Reprocessing
- Army Redevelopment – Barnum Road
- Devens Recycling
- Use of Reclaimed Materials
- Recycling ten years ago
- Models of good design



# Reclaimed Materials



Reclaimed wood samples considered for use in the Operation Comeback 5200 Dauphine Street project.



A shelf made from a salvaged airplane flap in the Eastern Sierra House.



Metal mining screens provide shroud for light sconces.

- Packing crates – window sills
- Reclaimed sheet piles for landscape retaining wall
- Steel railroad tracks as a trellis
- Aluminum roof panels as interior paneling
- Wood, brick, stone, carpet
- HVAC Equipment



# Wood Reuse



# Lifecycle Building/Design for Reuse



**Lifecycle building**....the design of building materials, components, information systems, and management practices to create buildings that facilitate and anticipate future changes to and eventual adaptation or dismantling for recovery of all systems, components, and materials.



# How to Incorporate Reuse

- Write Specifications that are clear about expectations (structural performance, storage requirements);
- Responsibility for sourcing, approving, purchasing, storing, decontamination, refurbishing, modifying, installing);
- Build reuse relationships (shop the site/on-site deconstruction)
- Be Flexible
- Factor in time (engage reuse supplier early in design process)
- Be Creative
- Test it out
- Share the Story





# Creating Buildings That Teach



# Honoring the past, building for the future



Photo: Michael David Rose / MDRP.NET



# Sense of Place/Building Character



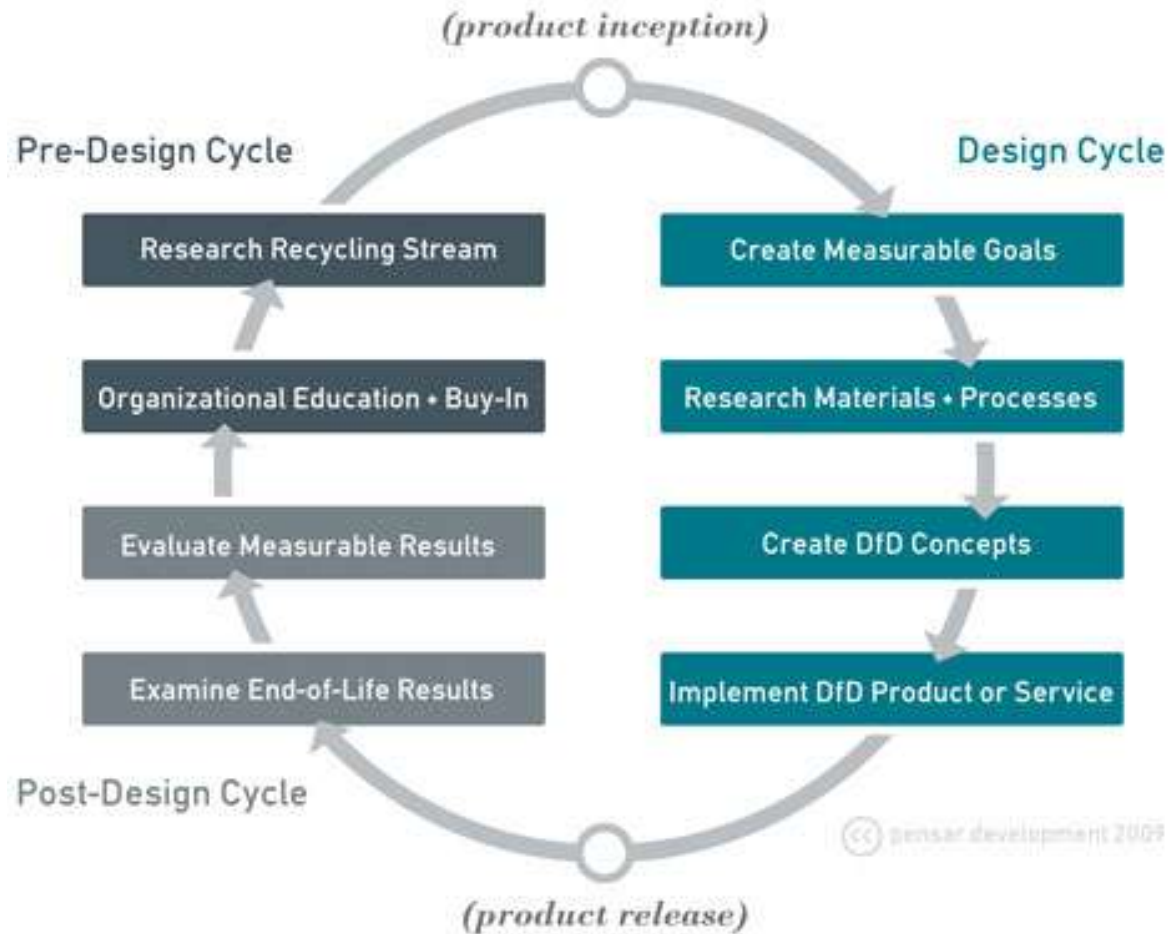
- Peach pits are used as flooring
- Tire treads are used as roofing material
- Plastic water tanks are used as light fixtures.
- Organic buildings
- Preserving history



# Design for Disassembly



# Design for Disassembly



# Why?

- Cradle to Cradle design
- Carbon reduction
- Durability (away from disposable)
- Increased value
- Character
- Sense of Place
- Embodied Energy
- Waste Reduction
- Triple Bottom-Line benefits
- Responsibility for future generations



# Local Design for Reuse Example



# Local Adaptive Reuse Example







# Building Material Reuse Resources

EcoStar Exchange

[www.ecostarexchange.com](http://www.ecostarexchange.com)

The Restore

<http://www.habitat.org/restores/>

Building Materials Reuse Association

<http://www.bmra.org/reuse-stores>

Restore Home Improvement Center

<http://www.restoreonline.org/>

Boston Building Materials Resource Center

<http://www.bostonbmr.org/bostonbmr/index.html>

EPA Building Reuse Donation Programs

<http://www.epa.gov/ne/assistance/reuse/bldg.html>



# Building Deconstruction and Reuse Resources

**Design for Reuse**

<http://www.designforreuse.org/>



**US EPA Waste Reduction Model**

[http://www.epa.gov/climatechange/wycd/waste/calculators/Warm\\_home.html](http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html)

**Lifecycle Construction Resource Guide**

<http://www.lifecyclebuilding.org/resources.php>

**Lifecycle Building Challenge (designing this building...and the next...)**

<http://www.lifecyclebuilding.org/entry-info.php>



# Devens Eco-Efficiency Center Resources

[www.ecostardevens.com](http://www.ecostardevens.com)

**Devens Eco-Efficiency Center**  
 Helping businesses and not-for-profit organizations incorporate economic, environmental, and social considerations into their daily operations and activities.

**ECO STAR**

Ecology Community Economy Sustainability

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**New! Power Down - Proville Tip**  
**Power Down Guide!**  
 From office electronics to building operations and maintenance tips, this guide is filled with great resources and ideas on how you can implement cost-saving energy efficiency measures in your business right now.  
**Take a look at the guide and other great Power-Down resources here!**

**Next Roundtable:**  
 Environmental Health & Safety Roundtable:  
**TEACHING THE ADULT LEARNER**  
 February 19, 2010 8AM-11AM  
 33 Andrews Parkway, Devens, MA  
 (Conference Room 1)  
 Are you responsible for training workers in your organization? Come learn about and practice key strategies to make sure your important message gets heard.  
[GO TO THE ROUNDTABLE PAGE](#)

**How else can EcoStar help you?**  
 Want to make your business more environmentally friendly and reduce expenses?  
 Do you have an idea for a sustainability topic for future workshop training sessions or roundtables?  
 Do you have a routine waste stream that has reuse potential for another organization?  
 Contact Dona Neely, Director of the Devens Eco-Efficiency Center, to talk about what EcoStar can do for your business in these areas and more. 978-772-8831 x3304

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 Contact Dona Neely at 978-772-8831 x3304

\*This site is best viewed using Internet Explorer\*

EcoStar is a program of the Devens Eco-Efficiency Center. The Devens Eco-Efficiency Center is a 501(c)3 non-profit organization, established in 2007. Our Thanks to the Devens Enterprise Commission for their continued support. For more information, contact the Director of Devens Eco-Efficiency [Dona Neely](#).

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 ENTERPRISE COMMISSION