

A lush green bamboo forest with a stone staircase leading up a hill. The bamboo stalks are tall and slender, creating a dense canopy. The ground is covered in fallen leaves and small plants. The overall atmosphere is serene and natural.

# **Remodeling Strategies for Green Bathrooms and Laundry Spaces**

**Cindy Ojczyk  
Simply Green Design**



**Beautiful**

**MORE  
Than  
Beautiful**





**MORE Than Beautiful**

Beautiful

More Than  
Beautiful

Design

Air Quality

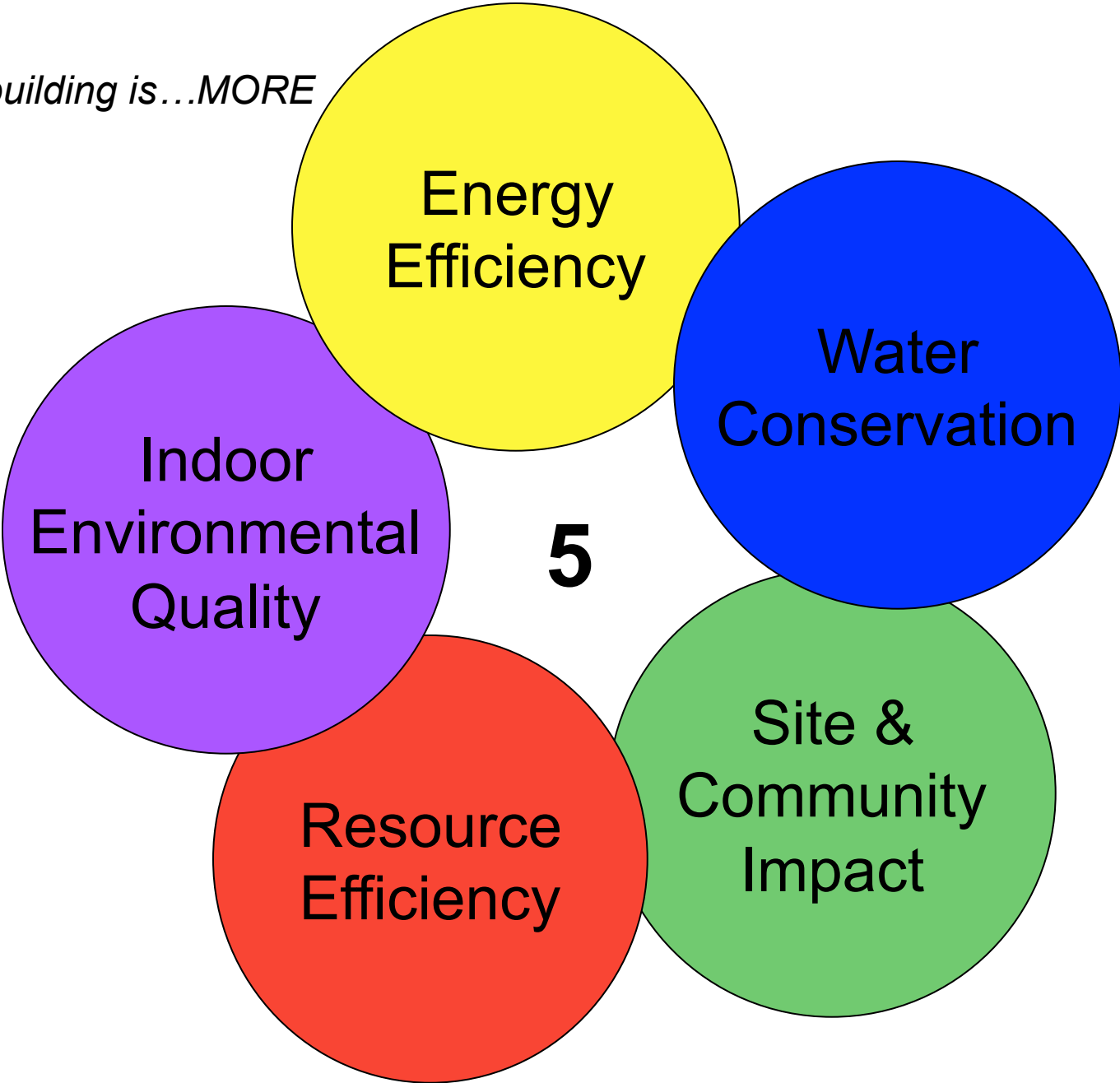
Comfort

Cost Savings

Design



*Green building is...MORE*



Energy  
Efficiency

Water  
Conservation

Indoor  
Environmental  
Quality

**5**

Resource  
Efficiency

Site &  
Community  
Impact

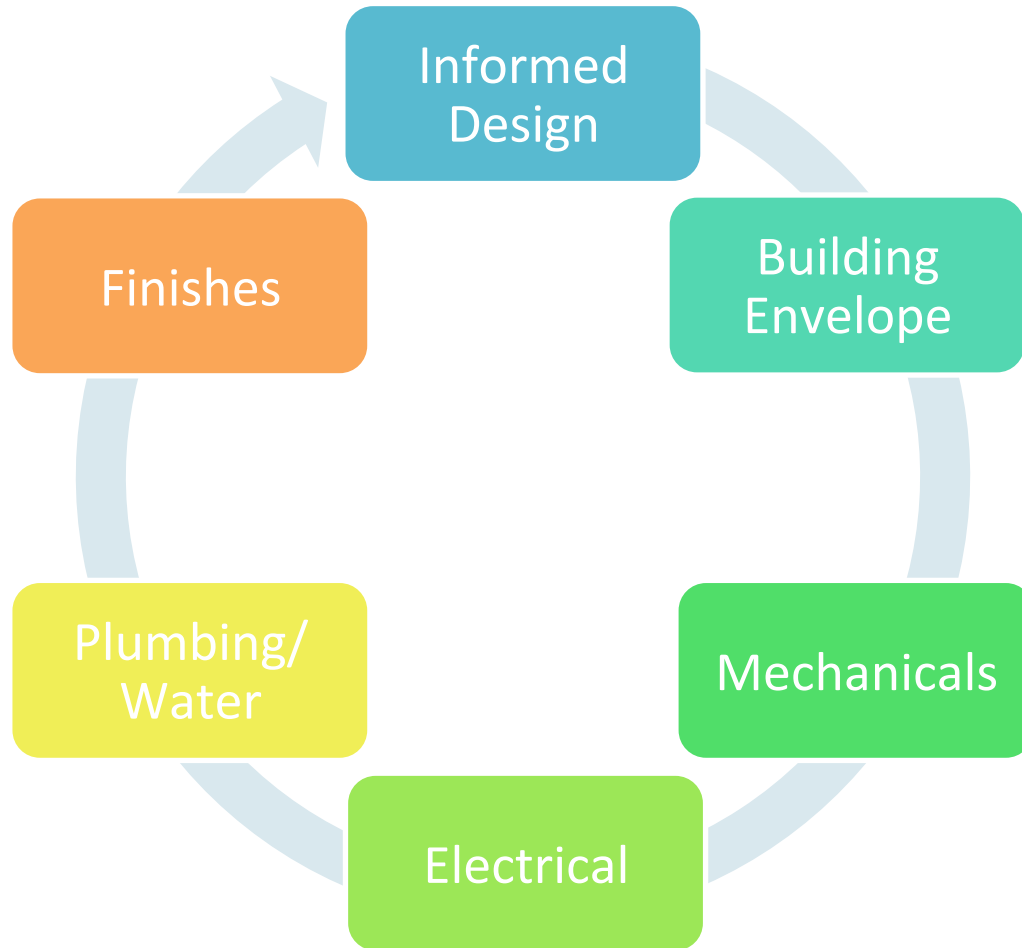
# Green = More Than Beautiful

- Beauty
- Quality

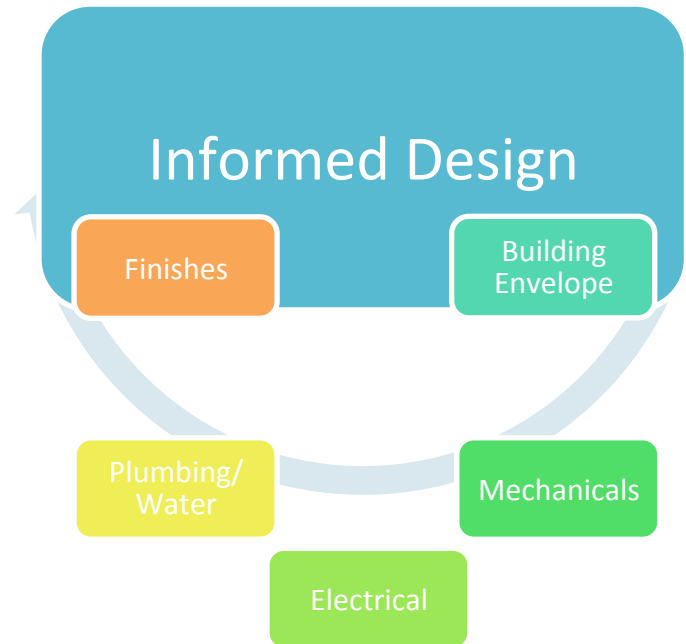


Lower monthly bills

Improved durability







- *Design*
- *Home Performance Assessment*
- *Green remodeling resources and certification*
- *Waste Management*
- *Risk Management*
- *Business Opportunity*



Design  
Trend:  
Simpler

Design  
Trend:  
Hotel/Spa  
Experience

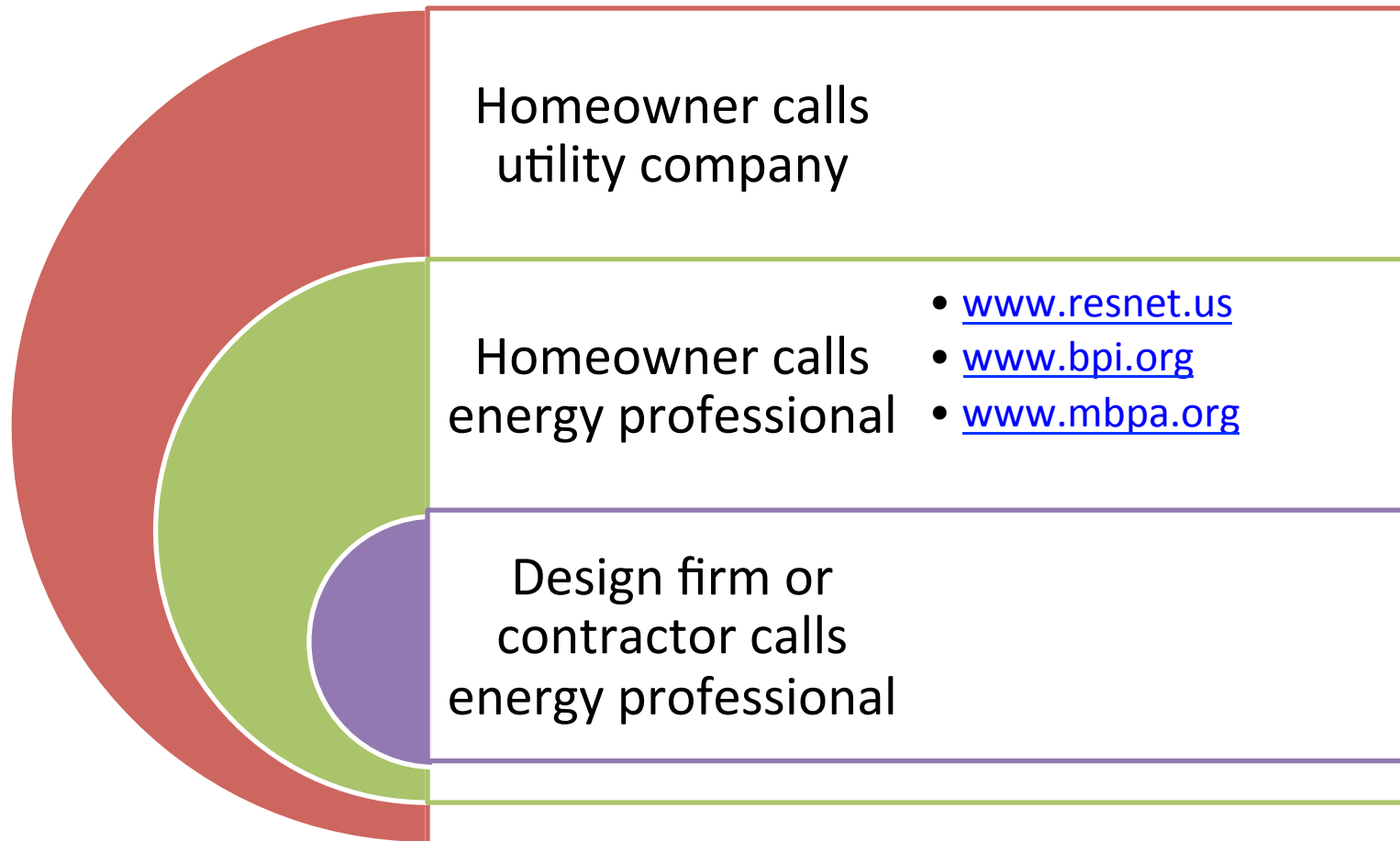


# Be a Hero to Your Client with Home Performance Assessment

- High utility bills
- Mold/mildew
- Hot/cold rooms/floors
- Drafty windows
- Ice dams
- Unidentified pollutants

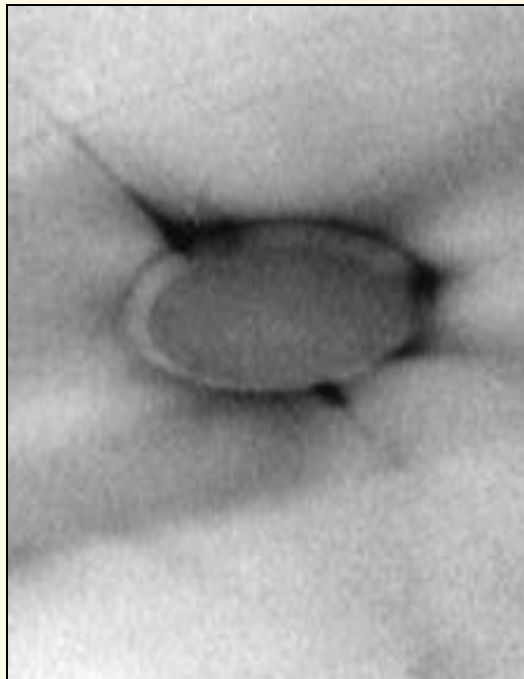


# Home Performance Assessment is Easy to Do



# Home Performance Assessment Tools

## Blower Door, Infrared Camera



# Performance Assessment Tools



Duct Blaster



Balometer



CO Testing



# Radon

- 20,000 deaths per year
- \$50 million per year in medical costs and lost wages per year
- 2<sup>nd</sup> leading cause of lung cancer
- Unnecessary health risk



# Radon - How

1. DIY (library reference materials)
2. DIY + Basic Assistance from Service Providers  
(see MN Department of Health)
3. Certified Contractor (not state required)
  1. National Environmental Health Association
  2. National Radon Safety Board

# LEAD

- **\$43 billion/year to treat children with lead poisoning**
- **RRP (EPA Renovation, Repair, Painting Rule)**“...firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes... be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices.”

# Green Remodeling Resources and Certifications



[www.mngreenstar.org](http://www.mngreenstar.org)

[www.usgbc.org](http://www.usgbc.org)

[www.greenbuilthome.org](http://www.greenbuilthome.org)

[www.greencommunitiesonline.org](http://www.greencommunitiesonline.org)



# Waste Management



# Deconstruct for REUSE

- Cabinets
- Millwork
- Wood flooring
- Doors
- Metal sinks
- Good condition framing

“Building Salvage MN”



# Deconstruct for RECYCLING

- Metal: sinks, wiring, cast iron tubs



# JOBSITE Recycling & Sorting

- Metal
- Cardboard
- Beverage  
containers
- Unpainted  
sheetrock
- Insulation
- Paint/finish products
- Hazardous waste





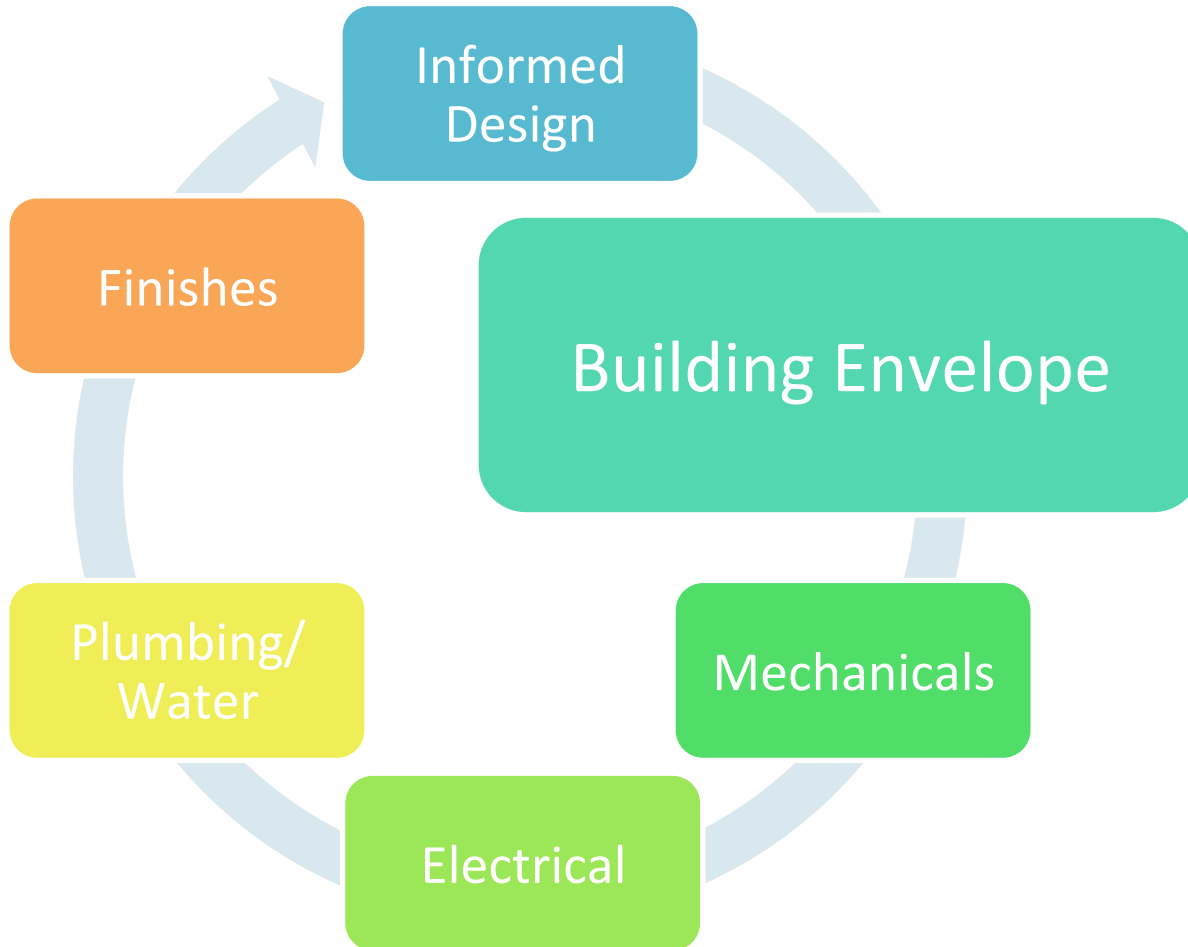
## Informed Design = Business Opportunity

Radon Mitigation  
Assistance

Certified Radon  
Contractor

Home Performance  
Contractor







- Air sealing
- Aligning existing & new air/vapor barriers
- Insulation
- Improvements to existing windows, skylights, doors
- New windows, skylights, doors

# Bathrooms and Laundry Rooms Above Grade: Bulk Water Management

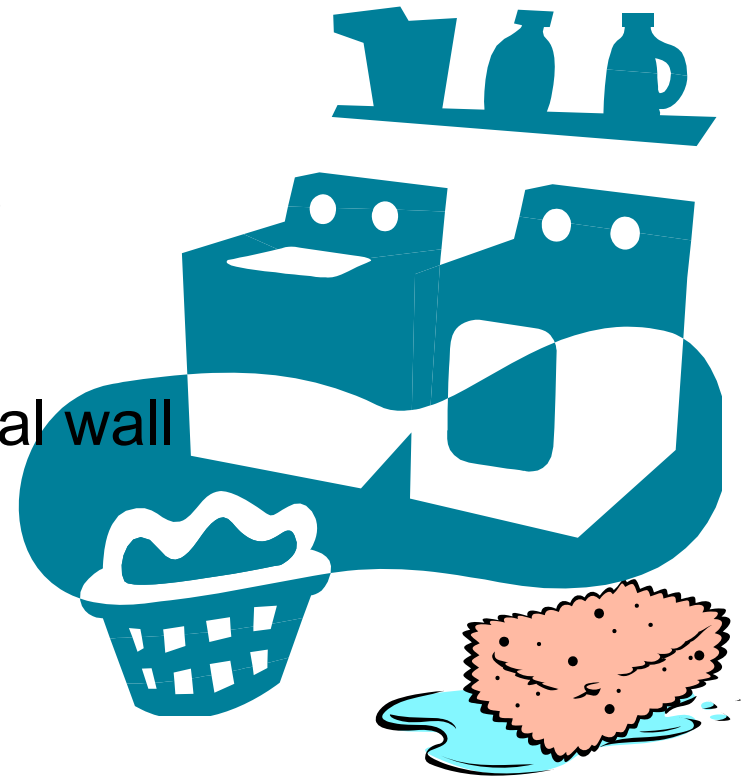
Plan for Worst-Case Scenarios

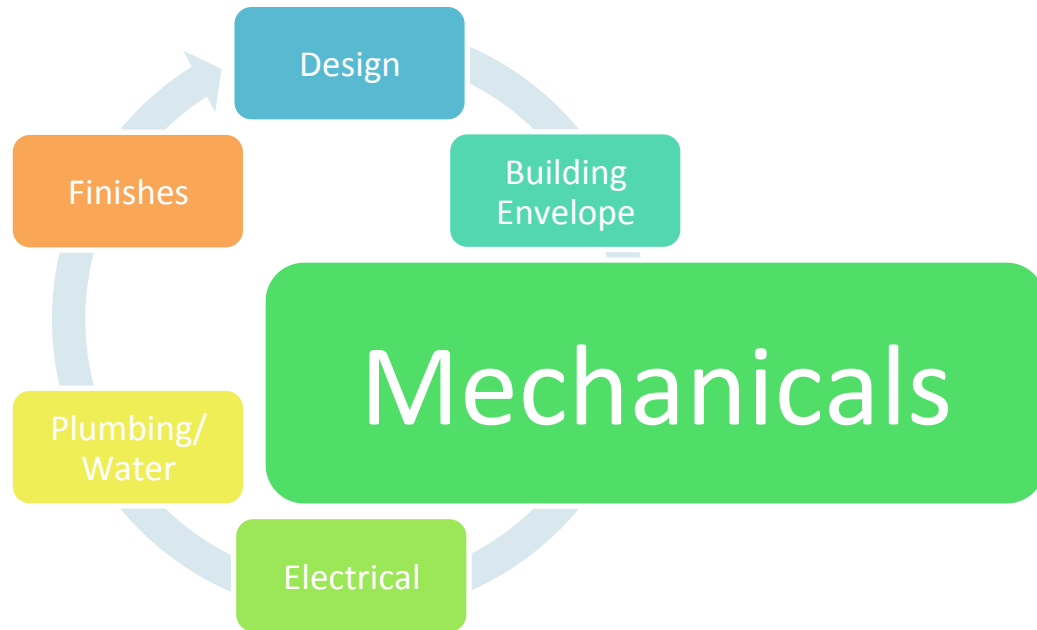
Drain Pans

Overflow drains

Membrane-lined floor and partial wall

Steel mesh hoses





# Ventilation & Water Vapor Management



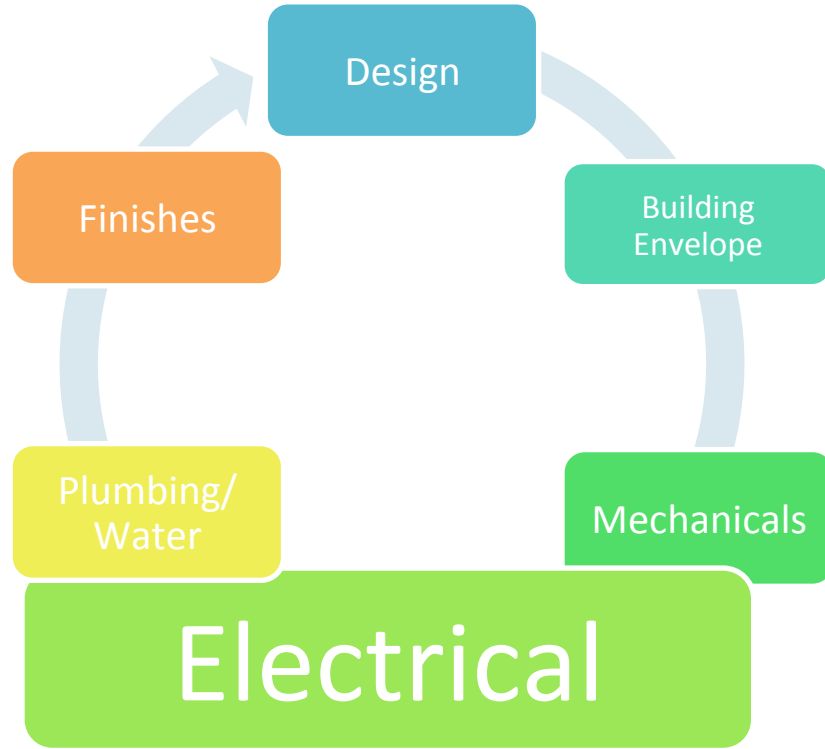
- Mechanical Ventilation
  - ENERGY STAR
  - Timers
  - Occupant sensors
  - Humidity sensors
  - Insulated ductwork
  - **Smooth duct recommended\***
  - No pinches in flex duct

# Prevent Fires and Mold with Smooth Duct



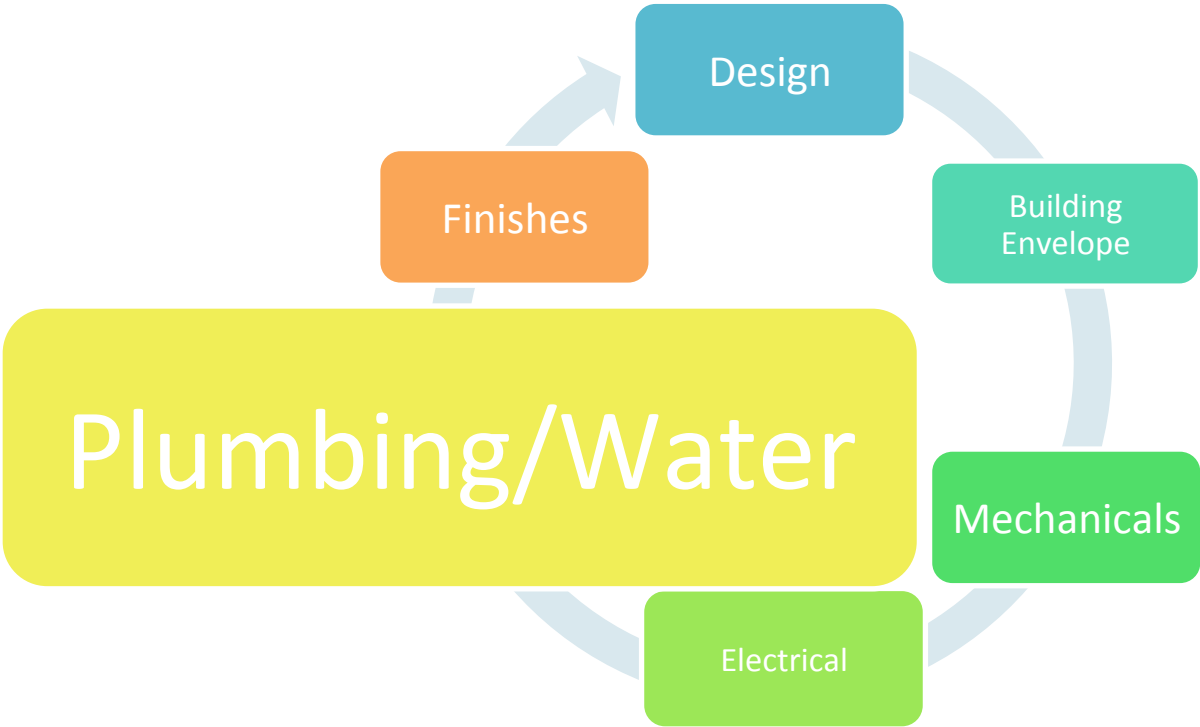


**Occupant Ventilation:**  
**Heat Recovery Ventilator (HRV)**  
**Energy Recovery Ventilator (ERV)**





- 
- **GOOD DESIGN TO LIGHT THE FACE**
  - **ENERGY STAR:**
  - **FIXTURES AND BULBS**
  - **LED & CFL**
  - **DIMMER SWITCHES**





# Plumbing Leaks

- 8% of homes have interior plumbing leaks
- Pressure loss testing
- Visual inspection





❑ ENERGY STAR Certified



❑ [www.cee1.org](http://www.cee1.org): 3 tiers

❑ Consumer Reports

# Water heaters

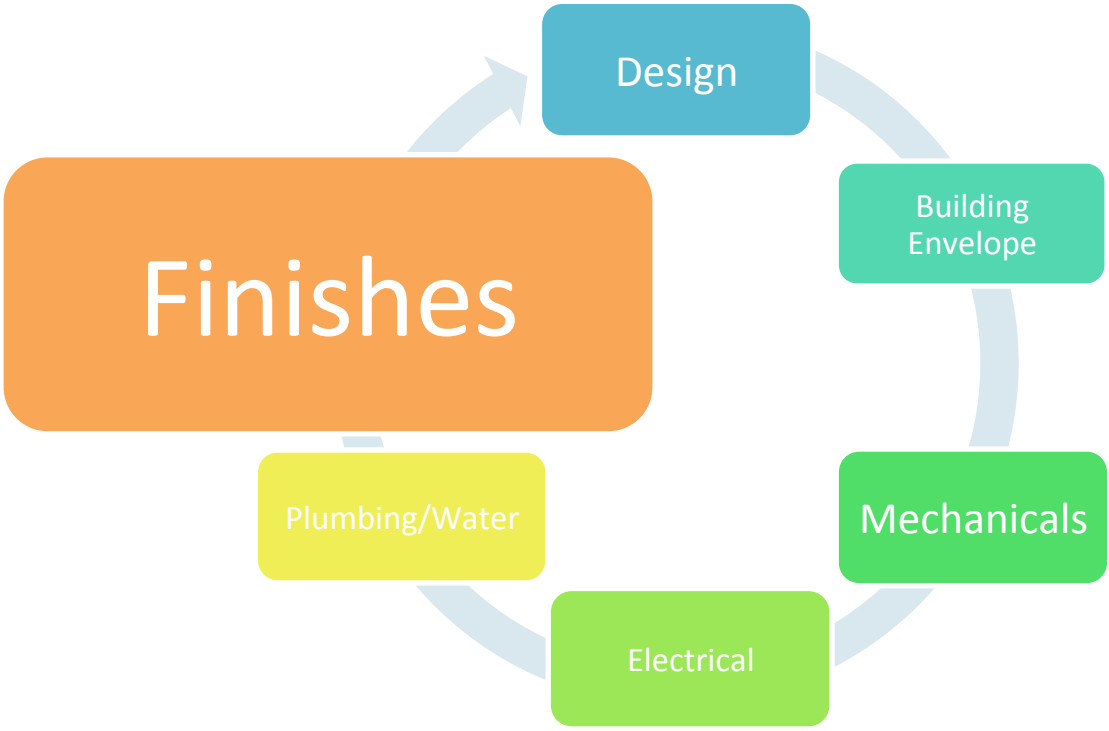
- ENERGY STAR Certified
  - High efficiency gas storage
  - Gas condensing
  - Heat pump
  - Whole home gas tankless
  - Solar
- [www.cee1.org](http://www.cee1.org) – 3 tiers
  - Storage water heaters
  - Tankless water heaters





**MaP Maximum Performance  
Score for Toilet Efficiency and  
Performance**

**[www.map-testing.com](http://www.map-testing.com)**



Finishes

Design

Building Envelope

Mechanicals

Electrical

Plumbing/Water



# Design Trend – Neutral Color

Casa Verde Design



# Design Trend – Organic

Casa Verde Design



# Design Trend – Navy Blue, Graphic Designs





**PRODUCTS  
WITH GREEN  
ATTRIBUTES**

~~**GREEN  
PRODUCTS**~~

# Green Attributes

- Recycled Content
- Low Emitting
  - CARB
  - NAUF
  - Formaldehyde Free
  - certified low emitting
- Rapidly Renewable
- Salvaged/Reclaimed
- Locally extracted
- Chain of Custody
- EPD – Environmental Product Declaration, 3<sup>rd</sup> party verified LCA



**MIN GreenStar - Remodeling**  
 VERSION 2.1 (8/8/2016)  
 Proj. Name: <Project Name>  
 Proj. Date: <date>

UPDATE VIEW    HIDE TRADES    SHOW TRADES    GO TO ADVANCED FILTERING

SHOW ALL CREDITS    DESELECT ALL FILTERS

Project Type (CHANGE)	1	REQUIRED TO MEDAL	85	28	23	8	7	165
		PROJECT GRAND TOTALS:	0	0	0	0	0	0
		GAP TO MEDAL	85	28	23	8	7	165
Medal Goal (CHANGE)	Bronze	POINTS WITH *7*	0	0	0	0	0	0
		POINTS WITH *Y + 7* GAP TO MEDAL	85	28	23	8	7	165

CREDITS SELECTED	SECTION NUMBER				
<input checked="" type="checkbox"/> *7* SELECTED	<input type="checkbox"/> SECTION 1	<input type="checkbox"/> SECTION 2	<input type="checkbox"/> SECTION 3	<input type="checkbox"/> SECTION 4	<input type="checkbox"/> SECTION 5
<input checked="" type="checkbox"/> *7* SELECTED	<input type="checkbox"/> SECTION 6	<input type="checkbox"/> SECTION 7	<input type="checkbox"/> SECTION 8	<input type="checkbox"/> SECTION 9	<input type="checkbox"/> SECTION 10
<input checked="" type="checkbox"/> BLANK / NA	<input type="checkbox"/> SECTION 11	<input type="checkbox"/> SECTION 12	<input type="checkbox"/> SECTION 13	<input type="checkbox"/> SECTION 14	<input type="checkbox"/> SECTION 15

CHOOSE "Y" TO SELECT	ID NUMBER	DESCRIPTION	POINTS CATEGORIES					TOTAL	REQUIRED DOCUMENTATION			SIGN OFF		COMMENTS (OPTIONAL)
			EE	RE	EQ	WC	SC		Type Of Doc.	Alt. Type Of Doc.	Do It Before	Initial When Doc. Comp.	MIN Grn-Star Approval	
	8A-4	Install tile or stone for all shower or tub surrounds				2		2	Photo		Complete			
	8A-5	Install decorative coverings with 1 or more Green attributes for 50% of the wall/ceiling area (see Requirements) Select up to 3 sub-credits:	1	1	1	1	1	5	Other Doc	calculator	Complete			
	8A-5a	Locally sourced	2					2	Other Doc	calculator	Complete			
	8A-5b	Contains minimum 25% post-consumer recycled content		1				1	Other Doc	calculator	Complete			
	8A-5c	Contains minimum 40% post-industrial recycled content		1				1	Other Doc	calculator	Complete			
	8A-5d	Low emitting or no-added-formaldehyde (NAF or NALF) (see requirements in manual)			1			1	Other Doc	calculator	Complete			
	8A-5e	Salvaged reclaimed/recovered		3			1	4	Other Doc	calculator	Complete			
	8A-5f	Rapidly renewable content		1				1	Other Doc	calculator	Complete			
	8A-5g	FSC certified		1				1	Receipt/Invoic	calculator	Complete			
	8A-5h	Recyclable/Recycled content		2				2	Other Doc	calculator	Complete			
	8A-5i	Certified sustainable manual sawing process					1	1	Other Doc	calculator	Complete			
	8A-5j	Life cycle impact assessment		1			1	2	Other Doc	calculator	Complete			
	8A-4	Install product with 1 or more Green attributes for 50% of the wall/ceiling area (see Requirements) Select up to 3 sub-credits:	1	1	1	1	1	5	Other Doc	calculator	Complete			
	8A-5a	Locally sourced		3				3	Other Doc	calculator	Complete			
	8A-5b	Contains minimum 25% post-consumer recycled content		2				2	Other Doc	calculator	Complete			

# Recycled Content

- Sinks
- Countertops
  - recycled glass
  - Recycled paper
- Tile







# Low-Emitting



- ❖ **Low VOC**
- ❖ **NAUF (No Added Urea Formaldehyde)**
- ❖ **Formaldehyde-free**
- ❖ **CARB (CA Air Resources Board)**

# Certified Low-Emitting



**SCS (Scientific Certification Systems)**

# Rapidly Renewable





## Salvaged/ Reclaimed\*

\* check for lead content



**Re-finishable,  
Re-surfaceable on-site**



**Locally Extracted within 500 Miles**

Time Out for Questions

# Resources for Green Remodeling



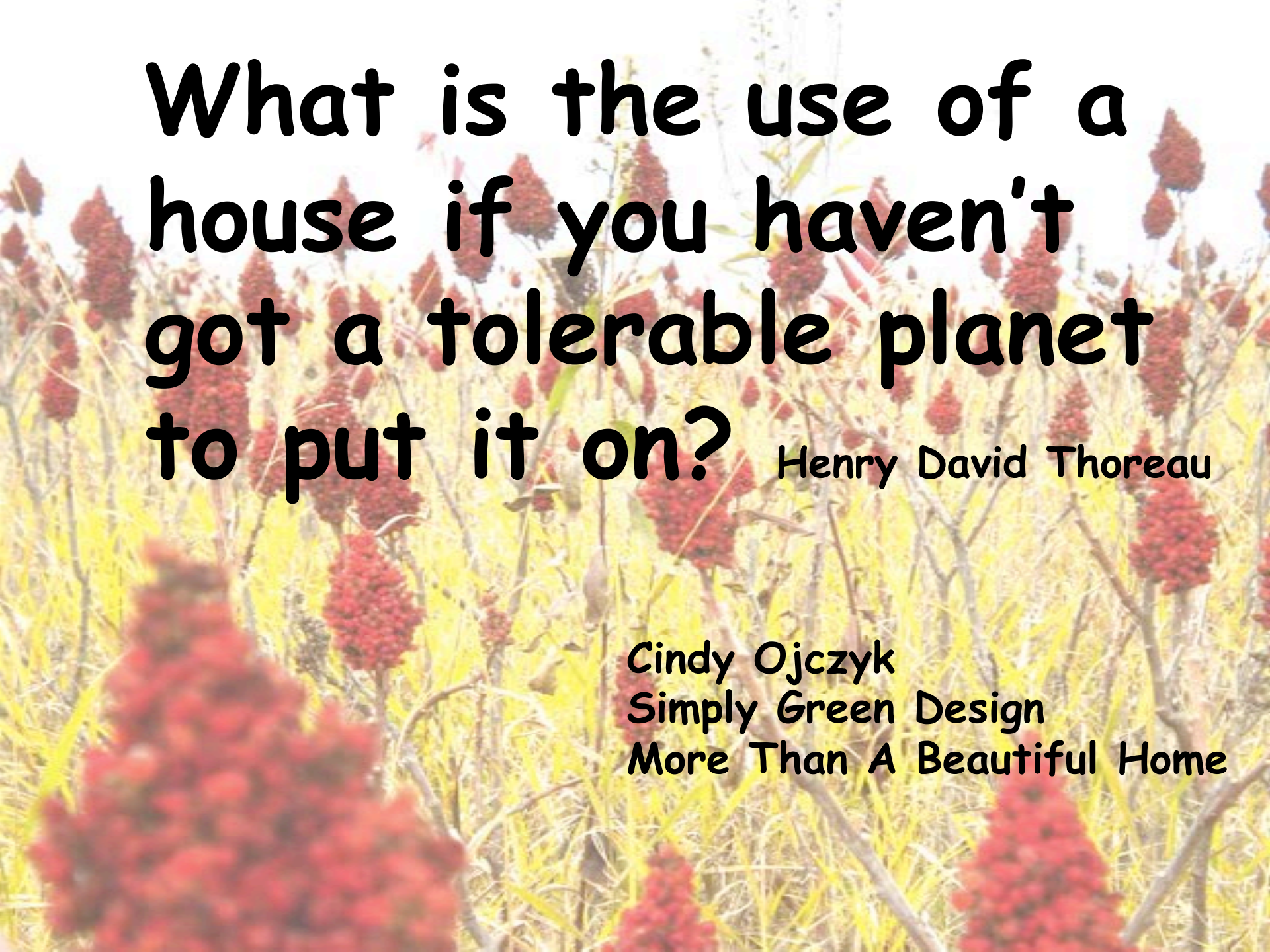
[www.mngreenstar.org](http://www.mngreenstar.org)

[www.usgbc.org](http://www.usgbc.org)

[www.greenbuilthome.org](http://www.greenbuilthome.org)

[www.greencommunitiesonline.org](http://www.greencommunitiesonline.org)





**What is the use of a  
house if you haven't  
got a tolerable planet  
to put it on?**

Henry David Thoreau

Cindy Ojczyk  
Simply Green Design  
More Than A Beautiful Home