

# Certified Wood and Green Building

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# Leadership in Energy & Environmental Design



# US Green Building Council

- National, non-profit organization
- Voluntary, diverse membership that operates on consensus principles
- Developer and administrative authority of the LEED™ Green Building Rating System
- Purpose is to:
  - Integrate building industry
  - Lead change
  - Educate

# US Green Building Council

- 6,000 member organizations representing 53,000 people
- 21,500 LEED-Accredited Professionals
- 60+ chapters; WI Green Building Alliance
- 30 countries
  
- 435 MSF of LEED Projects in 2005; doubled from 2004
- ~2,800 projects certified & registered LEED-NC, ~150 LEED-EB
- 2-5% of US nonresidential construction market or \$3.3 billion in real estate in 2004

# LEED™

## Green Building Rating Program

- US Green Building Council [www.usgbc.org](http://www.usgbc.org)
- Performance based standard
- Consensus driven, multi-stakeholder, public comment periods, membership balloting
- Evolving, LEED-NCv2.2 just released; v3.0 in process
- Commercial Building standard- commercial, institutional, and high-rise residential new construction and major renovation
- Four levels of certification
  - LEED Certified      26 - 32 points
  - Silver Level      33 - 38 points
  - Gold Level      39 - 51 points
  - Platinum Level      52+ points (69 possible)

# LEED™ Scorecard

**Total Project Score** Possible Points **69**

Certified 26 to 32 points Silver 33 to 38 points Gold 39 to 51 points Platinum 52 or more points

**Sustainable Sites** Possible Points **14**

Y	?	N	Req	Description	Points
Y			Prereq 1	<b>Erosion &amp; Sedimentation Control</b>	
			Credit 1.1	<b>Site Selection</b>	1
			Credit 1.2	<b>Urban Redevelopment</b>	1
			Credit 1.3	<b>Brownfield Redevelopment</b>	1
			Credit 4.1	<b>Alternative Transportation, Public Transportation Access</b>	1
			Credit 4.2	<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b>	1
			Credit 4.3	<b>Alternative Transportation, Alternative Fuel Refueling Stations</b>	1
			Credit 4.4	<b>Alternative Transportation, Parking Capacity</b>	1
			Credit 5.1	<b>Reduced Site Disturbance, Protect or Restore Open Space</b>	1
			Credit 5.2	<b>Reduced Site Disturbance, Development Footprint</b>	1
			Credit 6.1	<b>Stormwater Management, Rate and Quantity</b>	1
			Credit 6.2	<b>Stormwater Management, Treatment</b>	1
			Credit 7.1	<b>Landscape &amp; Exterior Design to Reduce Heat Islands, Non-Roof</b>	1
			Credit 7.2	<b>Landscape &amp; Exterior Design to Reduce Heat Islands, Roof</b>	1
			Credit 8	<b>Light Pollution Reduction</b>	1

**Water Efficiency** Possible Points **5**

Y	?	N	Req	Description	Points
			Credit 1.1	<b>Water Efficient Landscaping, Reduce by 50%</b>	1
			Credit 1.2	<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b>	1
			Credit 2	<b>Innovative Wastewater Technologies</b>	1
			Credit 3.1	<b>Water Use Reduction, 20% Reduction</b>	1
			Credit 3.2	<b>Water Use Reduction, 30% Reduction</b>	1

**Energy & Atmosphere** Possible Points **17**

Y	?	N	Req	Description	Points
Y			Prereq 1	<b>Fundamental Building Systems Commissioning</b>	
Y			Prereq 2	<b>Minimum Energy Performance</b>	
Y			Prereq 3	<b>CFC Reduction in HVAC&amp;R Equipment</b>	
			Credit 1.1	<b>Optimize Energy Performance, 20% New / 10% Existing</b>	2
			Credit 1.2	<b>Optimize Energy Performance, 30% New / 20% Existing</b>	2
			Credit 1.3	<b>Optimize Energy Performance, 40% New / 30% Existing</b>	2
			Credit 1.4	<b>Optimize Energy Performance, 50% New / 40% Existing</b>	2
			Credit 1.5	<b>Optimize Energy Performance, 60% New / 50% Existing</b>	2
			Credit 2.1	<b>Renewable Energy, 5%</b>	1
			Credit 2.2	<b>Renewable Energy, 10%</b>	1
			Credit 2.3	<b>Renewable Energy, 20%</b>	1
			Credit 3	<b>Additional Commissioning</b>	1
			Credit 4	<b>Ozone Depletion</b>	1
			Credit 5	<b>Measurement &amp; Verification</b>	1
			Credit 6	<b>Green Power</b>	1

**Materials & Resources** Possible Points **13**

Y	?	N	Req	Description	Points
			Prereq 1	<b>Storage &amp; Collection of Recyclables</b>	
			Credit 1.1	<b>Building Reuse, Maintain 75% of Existing Shell</b>	1
			Credit 1.2	<b>Building Reuse, Maintain 100% of Existing Shell</b>	1
			Credit 1.3	<b>Building Reuse, Maintain 100% Shell &amp; 50% Non-Shell</b>	1
			Credit 2.1	<b>Construction Waste Management, Divert 50%</b>	1
			Credit 2.2	<b>Construction Waste Management, Divert 75%</b>	1
			Credit 3.1	<b>Resource Reuse, Specify 5%</b>	1
			Credit 3.2	<b>Resource Reuse, Specify 10%</b>	1
			Credit 4.1	<b>Recycled Content, Specify 25%</b>	1
			Credit 4.2	<b>Recycled Content, Specify 50%</b>	1
			Credit 5.1	<b>Local/Regional Materials, 20% Manufactured Locally</b>	1
			Credit 5.2	<b>Local/Regional Materials, of 20% Above, 50% Harvested Locally</b>	1
			Credit 6	<b>Rapidly Renewable Materials</b>	1
			Credit 7	<b>Certified Wood</b>	1

**Indoor Environmental Quality** Possible Points **15**

Y	?	N	Req	Description	Points
			Prereq 1	<b>Minimum IAQ Performance</b>	
Y			Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>	
			Credit 1	<b>Carbon Dioxide (CO<sub>2</sub>) Monitoring</b>	1
			Credit 2	<b>Increase Ventilation Effectiveness</b>	1
			Credit 3.1	<b>Construction IAQ Management Plan, During Construction</b>	1
			Credit 3.2	<b>Construction IAQ Management Plan, Before Occupancy</b>	1
			Credit 4.1	<b>Low-Emitting Materials, Adhesives &amp; Sealants</b>	1
			Credit 4.2	<b>Low-Emitting Materials, Paints</b>	1
			Credit 4.3	<b>Low-Emitting Materials, Carpet</b>	1
			Credit 4.4	<b>Low-Emitting Materials, Composite Wood</b>	1
			Credit 5	<b>Indoor Chemical &amp; Pollutant Source Control</b>	1
			Credit 6.1	<b>Controllability of Systems, Perimeter</b>	1
			Credit 6.2	<b>Controllability of Systems, Non-Perimeter</b>	1
			Credit 7.1	<b>Thermal Comfort, Comply with ASHRAE 55-1992</b>	1
			Credit 7.2	<b>Thermal Comfort, Permanent Monitoring System</b>	1
			Credit 8.1	<b>Daylight &amp; Views, Daylight 75% of Spaces</b>	1
			Credit 8.2	<b>Daylight &amp; Views, Views for 80% of Spaces</b>	1

**Innovation & Design Process** Possible Points **5**

Y	?	N	Req	Description	Points
			Credit 1.1	<b>Innovation in Design, Specific Title</b>	1
			Credit 1.2	<b>Innovation in Design, Specific Title</b>	1
			Credit 1.3	<b>Innovation in Design, Specific Title</b>	1
			Credit 1.4	<b>Innovation in Design, Specific Title</b>	1
			Credit 2	<b>LEED™ Accredited Professional</b>	1

# LEED: Materials & Resources Credits

Yes	?	No		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Materials &amp; Resources</b>	<b>13 Points</b>
<b>Y</b>			Prereq 1 <b>Storage &amp; Collection of Recyclables</b>	Required
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.1 <b>Building Reuse</b> , Maintain 75% of Existing Walls, Floors & Roof	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.2 <b>Building Reuse</b> , Maintain 100% of Existing Walls, Floors & Roof	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.3 <b>Building Reuse</b> , Maintain 50% of Interior Non-Structural Elements	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2.1 <b>Construction Waste Management</b> , Divert 50% from Disposal	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2.2 <b>Construction Waste Management</b> , Divert 75% from Disposal	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.1 <b>Materials Reuse</b> , 5%	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.2 <b>Materials Reuse</b> , 10%	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.1 <b>Recycled Content</b> , 10% (post-consumer + ½ pre-consumer)	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.2 <b>Recycled Content</b> , 20% (post-consumer + ½ pre-consumer)	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5.1 <b>Regional Materials</b> , 10% Extracted, Processed & Manufactured Regi	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5.2 <b>Regional Materials</b> , 20% Extracted, Processed & Manufactured Regi	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6 <b>Rapidly Renewable Materials</b>	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7 <b>Certified Wood</b>	1
Yes	?	No		

# LEED Certified Wood Credit

- **MR Credit 7: Certified Wood**

1 Point

Intent: Encourage environmentally responsible forest management.

- **Requirements**

Use a minimum of 50% of wood-based materials and products, which are certified in accordance with the Forest Stewardship Councils (FSC) Principles and Criteria, for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes.

Only include materials permanently installed in the project.

Furniture may be included, providing it is included consistently in MR Credits 3-7.



# Draft Matrix: Basis of Discussion

## The Matrix

Average	Governance			Operational		Environmental Issues										Social Issues			Market					
	Stakeholder balance	Independent of Foresters	Independent Funding	Labelling		Other		Field level audit - on ground performance			Ecological issues			Renewability			Toxicants			Fairness		Other	25% of market	
				Honest labelling	Chain of custody	Third party	Recertification	Maintain "natural" forest	Protect old growth	Retain biological legacies	Prevent GHG trees	Clearcutting limits	Sustainable yields	Avoid chemical use	Prohibit toxic chemicals	To workers	To indigenous people	To contractors	Public consultation	Illegal logging	Civil rights violations			
FSC																								
SFI																								
CSA																								
ATFS																								
PEFC																								

# USGBC's Wood Certification Stakeholder Meeting

- September 27, 2005
- 50 participants including 3 reps from each of the 5 certifications systems
- Purpose: “How should USGBC evaluate and utilize different wood certification systems that will continue to evolve over time?”

# Summary

- LEED is the primary green building standard and only consensus-based national standard
- LEED is the only standard with a track record in the market place (3,000 buildings/435MSF)
- The certified wood credit is optional and requires only half the wood be FSC certified
- There are 4 points offsetting the 1 for certified wood
- LEED certification of state and university buildings should have virtually no impact on Wisconsin wood

# Q & A

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