LEED-CI

LEED 2009 for Commercial Interiors

Presented by:
Colleen McCafferty LEED AP
Roselia Harris LEED AP
LEED Rating Systems

- Homes
- Commercial Interiors
- Core & Shell
- New Construction
- Schools
- Healthcare
- Existing Building Operations & Maintenance
- Retail (in Pilot)
- Neighborhood Development (in Pilot)
What is LEED for Commercial Interiors?

- It is the rating system for tenant spaces in office, retail and institutional buildings for design and construction.
- It is intended to promote healthy, durable, affordable & environmentally responsible spaces.
- It covers all the same topics as the other rating systems.
1. LEED-CI is just about Finish Materials

Fact:
- Sustainable Sites (SS)
- Water Efficiency (WE)
- Energy & Atmosphere (EA)
- Materials & Resources (MR)
- Indoor Environmental Quality (IEQ)
- Innovation in Design (ID)
- Regional Priority (RP)

LEED Recommends Building Materials
Products can be Certified under LEED
How does LEED-CI Work with the other rating Systems?

- LEED-CI was designed to work with LEED-Core & Shell.
- LEED-CS is a tool developers use to certify the core and shell of their development.
- Together LEED-CI and LEED-CS set the standard for green building practices for commercial real estate for use by both developers and tenants.
What types of spaces can be LEED-CI certified?

- “LEED for Commercial Interiors addresses the specifics of tenant spaces primarily in office, retail and institutional buildings. (Tenants who lease their space or do not occupy the entire building are eligible.)” Addenda to the LEED Reference Guide dated 11/2/2009

- Example- Even though Hixson does not occupy all of our building, we can not be LEED-CI because we own our building. However, our tenants on the 5th floor can be certified.
What are the benefits to having your project certified?

- Energy Savings for the landlord & tenant
- Healthy Workplace
- Corporate Goodwill
- Doing the right thing – the environmental impact of the building design, construction and operations industry is enormous. We all share this responsibility.
A) Verify that all the Prerequisites can be met:
- WE 1 Water Use Reduction – 20% reduction
- EA 1 Fundamental Commissioning of Building Energy Systems
- EA 2 Minimum Energy Performance
- EA 3 Fundamental Refrigerant Management
- MR 1 Storage and collection of Recyclables
- IEQ 1 Minimum Indoor Air Quality Performance
- IEQ 2 Environmental Tobacco Smoke (ETS) Control
How do I know if my space is a good fit for LEED-CI?

- C) Review the Rating Systems Checklist and tally potential points for all possibilities. If the minimum points can be easily achieved then you have a space that can be LEED Certified.
How do I know if my space is a good fit for LEED-CI?

B) Review the Minimum Program Requirements (MPRs) for compliance:

1. Must Comply with federal, state & local environmental laws
2. Must be a Building – not moveable at any point in its lifetime
3. Must Use a Reasonable Site Boundary – to include all the land that was or will be used for the purpose of constructing the bldg
4. Must comply with Minimum Full Time Equivalent (FTE) occupancy & Floor area Requirements – (1 or more FTE’s, 250 sq min of enclosed space)
5. Registration & Certification Activity Must Comply with Reasonable Timetables and Rating System Sunset Dates
6. Must Allow USGBC Access to Whole-Building Energy and Water Usage Data
7. Must Comply with a Minimum Building Area to Site Ratio – The building gross total floor area must be no less than 2% of the LEED project’s area.
LEED 2009
Certified: 40-49 Pts.
Silver: 50-59 Pts.
Gold: 60-79 Pts.
Platinum: 80+ Pts. (110 Possible Pts.)

LEED V2.0
Certified: 21-26 Pts.
Gold: 32-41 Pts.
Platinum: 42-57 Pts (57 possible Pts.)
Sustainable Sites

LEED-CI 2009

Sustainable Sites 21 Pts.
Sustainable Sites
Site Selection Credit 1

Option 1

Select a LEED Certified Building

2009: Possible 21 pts  V2: 7 pts

1-5 points  (V2: 1-3pts)

2009  V2

5 Pts  3 pts
### Site Selection

**SS Credit 1**  
1-5 points  
(V2: 1-3 pts)

#### Option 2

Select a building with as many as possible of the following qualities:

<table>
<thead>
<tr>
<th>Path 1</th>
<th>V3</th>
<th>V2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brownfield Redevelopment</td>
<td>1 Pt</td>
<td>½ Pt</td>
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<table>
<thead>
<tr>
<th>Path 2</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Stormwater Design- Quantity Control</td>
<td>1 Pt</td>
<td>½ Pt</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Path 3</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Design- Quality Control</td>
<td>1 Pt</td>
<td>½ pt</td>
</tr>
<tr>
<td>Path 4</td>
<td>Path 5</td>
<td></td>
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<tr>
<td>--------------------------------------------</td>
<td>---------------------------------------------</td>
<td></td>
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<tr>
<td>♦ Heat Island Reduction, non-Roof 1 Pt</td>
<td>♦ Heat Island Reduction, Roof 1 Pt</td>
<td></td>
</tr>
<tr>
<td>V 3</td>
<td>V 2</td>
<td></td>
</tr>
<tr>
<td>1 pt</td>
<td>½ pt</td>
<td></td>
</tr>
</tbody>
</table>
Site Selection
SS Credit 1

Path 6
- Light Pollution Reduction
  2009 V2
  1 Pt ½ pt

Path 7
- Water Efficient Landscaping - reduce by 50%
  2 Pts ½ pt

Path 8
- Water Efficient Landscaping - no Potable water used or no Irrigation
  2 Pts ½ pt
Site Selection
SS Credit 1

Path 9
- Innovative Wastewater Technologies 2 Pts ½ pt
  Reduces sewage by at least 50% or Treats 100% wastewater on site

Path 10
- Water Use Reduction 1 Pt 1 pt
Site Selection
SS Credit 1

Path 11
- Onsite renewable Energy 1-2 Pts

2009 V2

Path 12
- Other Quantifiable Environmental Performance 1Pt 3 pts
Site Selection
SS Credit 2

Development Density
& Community Connectivity

6 points (V2: 1 pt)
Site Selection
SS Credit 3.1

Alternative Transportation-
Public Transportation Access

- Rail Station Proximity
- Bus Stop Proximity
Site Selection
SS Credit 3.2

Alternative Transportation-
- Bicycle storage
- Changing rooms

2 points (V2: 2 pts)
Site Selection
SS Credit 3.3

2 points (V2: 2 pts)

Alternative Transportation-
- Parking Availability
Water Efficiency – Possible pts: 11
WE Prerequisite 1

- Water Use Reduction (V2: 1 pt)
  - Reduce potable water use by 20%

Water Efficiency
WE Credit 1

- Water use reduction (V2: 30% 1 pt)
  - Reduce potable water use by 30% (6 pts), 35% (8 pts) & 40% (11 pts)
Fundamental Commissioning of Building Energy Systems
**Energy & Atmosphere**

**EA Prerequisite 2**

- **Minimum Energy Performance** 2009: Required  
  - ASHRAE 90.1-2007 or more stringent local energy code
  - Reduce connected lighting power density 10% below allowed by ASHRAE 90.1-2007
  - Install ENERGYSTAR equipment for 50% of eligible equipment that is included in the tenant’s scope of work.
Energy & Atmosphere
EA Prerequisite 3

Fundamental Refrigerant Management

Energy & Atmosphere
EA Credit 1.1

Optimize Energy performance - Lighting Power

- Reduce lighting power density to 15%, 20%, 25%, 30% or to 35% below the standard
Optimize Energy performance – Lighting Controls
Energy & Atmosphere
EA Credit 1.3  2009: 5-10 points  (V2: 1-2)

Optimize Energy performance - HVAC
  • Equipment Efficiency and Zoning & Controls
  • Reduce Design Energy Cost
Optimize Energy performance – Equipment & Appliances

- For all ENERGY STAR eligible equipment and appliances installed as part of the tenant’s scope of work, achieve one of the following percentages: 70%, 77%, 84% or 90%
Energy & Atmosphere
EA Credit 2
2009: 5 points

- Enhanced Commissioning
Measurement & Verification

- Projects with area less than 75% of total building area
  - Install sub metering equipment (2 pts)
  - Negotiate a lease where the tenant pays for energy costs (3 pts)
- Projects with area 75% or more of total building area
  - Install continuous metering equipment (5 pts)
  - Develop a Measurement and Verification Plan
  - Provide a process for corrective action.
Energy & Atmosphere
EA Credit 4

- Green Power
  - Solar
  - Wind
  - Geothermal
  - Biomass
  - Low-impact hydro

2009: 5 points
Materials & Resources

LEED-CI
2009

Materials & Resources
21 Pts.
Materials & Resources
MR Prerequisite 1  2009: Required  (V2: Required)

- Storage and Collection of Recyclables
  - Paper  Corrugated Cardboard
  - Glass  Plastics
  - Metals
Materials & Resources
MR Credit 1.1

Tenant Space, Long Term Commitment

10 YEAR LEASE
Materials & Resources
MR Credit 1.2

2009: 1-2 points \( (V/2: 1-2) \)

- Building Reuse-Maintain Interior Nonstructural Components
  - 40% (1 point)
  - 60% (2 points)
  - 80% Exemplary Performance
Materials & Resources  
MR Credit 2  
2009: 1-2 points  (V2: 1-2)

- Construction Waste Management
  - Divert 50% from Landfill (1 point)
  - Divert 75% from Landfill (2 points)
  - Divert 95% from Landfill (Exemplary Performance)
Materials & Resources
MR Credit 3.1

Materials Reuse

- 5% (1 point)
- 10% (2 points)
- 15% (Exemplary Performance)
Materials & Resources
MR Credit 3.2

2009: 1 point (V2: 1)

Materials Reuse

- 30% Furniture & Furnishings
- 60% Exemplary Performance
Materials & Resources
MR Credit 4
2009: 1-2 points (√2: 1-2)

- Recycled Content
  - 10% (post-consumer + ½ pre-consumer) 1 point
  - 20% (post-consumer + ½ pre-consumer) 2 points
  - 30% Exemplary Performance
Materials & Resources
MR Credit 5

Regional Materials
• 20% Manufactured Regionally - Option 1 (1 point)
• 10% Extracted and Manufactured Regionally + Option 1 requirements - Option 2 (2 points)
• 20% Exemplary Performance
  • Extracted and Manufactured Regionally

![Map of the United States with a circle highlighting a region]
Materials & Resources
MR Credit 6

- 5% Rapidly Renewable Materials
- 10% Exemplary Performance
Materials & Resources
MR Credit 7

- 50% Certified Wood
- 95% Exemplary Performance
Indoor Environmental Quality

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Indoor Environmental Quality 17 Pts.
1 Minimum IAQ Performance

2 Environmental Tobacco Smoke (ETS) Control
Indoor Environmental Quality
IEQ Credit 1 & 2  2009:1-2 points (v2: 1-2)

- IEQ-1 Outdoor Air Delivery Monitoring
- IEQ-2 Increased Ventilation
  • 30% above the minimum
Construction IAQ Management Plan

- 3.1 During Construction
- 3.2 Before Occupancy
  - Flush Out or Air Testing
Low-Emitting Materials

- 4.1 Adhesives and Sealants
- 4.2 Paints and Coatings
- 4.3 Flooring Systems
- 4.4 Composite Wood and Agrifiber Products
- 4.5 Systems Furniture and Seating
Indoor Environmental Quality
IEQ Credit 5

Indoor Chemical and Pollutant source Control

2009: 1 point (v2: 1)
Controllability of Systems

- Lighting
- Thermal Comfort
Indoor Environmental Quality
IEQ Credit 7.1 & 7.2

Thermal Comfort

- 7.1 Design
- 7.2 Verification
Indoor Environmental Quality
IEQ Credit 8.1 & 8.2    2009: 1-3 points (V2: 1-3)

Daylight & Views

- Daylight 75% of Spaces (1 point)
- Daylight 90% of Spaces (2 points)
- Views for 90% of Seated Spaces (1 point)
- Exemplary Performance, Yes
Innovation in Design & Regional Priority

LEED-CI 2009

Innovation in Design 6 Pts
Regional Priority 4 Pts.
Innovation in Design
ID Credit 1  2009: 1-5 points  (v2: 1-4)

Path 1. Innovation in Design (1-5 points)
• Achieve significant, measurable environmental performance using a strategy not addressed in LEED 2009
  Examples:
  1. Composting
  2. Ride share programs / Transportation Management Plan
  3. Carbon Neutral Office
  4. Office Space Material and Equipment Recycling Plan
  5. Duct Remediation
  6. Ergonomic work environment
  7. Education program

Path 2. Exemplary Performance (1-3 points)
• Achieving double the credit requirement and/or achieving the next incremental % threshold of an existing credit in LEED.
Innovation in Design
ID Credit 2 2009: 1 point (v2: 1)

LEED Accredited Professional

Regional Priority
RP Credit 1 2009:1-4 points (v2: 0)

Regional Priority
- 6 credits available per region
- 1 credit awarded for each Regional Priority Credit Achieved, maximum of 4 points.
- Projects outside the USA are not eligible
WEB  Base resources
Hixson-inc.com

U.S. Green Building Council
www.usgbc.org

Map tool to show 500 mile radius
www.freemaptools.com/radius-around-point.htm

Database of state Incentives for Renewables & Efficiency – IREC & North Carolina Solar Center
www.dsireusa.org

Green Guard Environmental Institute
www.greenguard.org

www.energystar.gov

www.eere.energy.gov