

## Appendix 1:

# U.S. Green Building Council and the LEED™ Green Building Rating System

### Introduction

Many of the strategies in the Menomonee Valley Sustainable Design Guidelines may also earn credits under the U.S. Green Building Council's LEED™ [Green Building Rating System](#). The Valley Guidelines are written primarily for industrial buildings, whereas the LEED™ system tends to focus on commercial and office buildings. However this does not mean that industrial buildings cannot glean benefits from the LEED™ program. If you are interested in Sustainable Design over and above the Valley Guidelines, we strongly encourage you to consider LEED™.

The LEED™ Green Building Rating System™ is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Members of the U.S. Green Building Council (USGBC) representing all segments of the building industry developed LEED™ and continue to contribute to its evolution. The USGBC began in 1993 to address the need for a single entity to provide leadership in green design across a wide range of building trades, vendors, products, materials, architects, designers, engineers, contractors and developers.

It is important to recognize that even a moderate incorporation of sustainable design elements, and achieving a basic LEED™ certification, will generate a wide range of benefits for the facility owner, including increased property value, improved facility performance and operational cost savings, international corporate recognition and marketing benefits.

The materials in this Appendix are designed to help you better understand the LEED™ rating system and its costs and benefits. These materials are organized to respond to the following subjects:

- I. Benefits of Sustainable Design and LEED™ Certification
- II. Getting Started with LEED™ and the LEED™ Certification Process
- III. LEED™ Credit Levels and Developer Effort Required to Successfully Design and Build Sustainable Projects in the Menomonee River Valley
- IV. References

The U.S. Green Building Council has provided one of the most compelling and helpful frameworks for sustainable development in LEED™, Leadership for Energy and Environmental Design. USGBC's point system for commercial buildings covers a wide range of criteria, from energy and materials use to site selection and indoor air quality. The motivation for each prerequisite and "credit" or point is clearly presented and well explained in publicly available documents. The result is a framework that is deep and rich, but still easy to engage and grasp from the outset.

Of course, LEED™ is not the entire pathway to sustainability. No one framework could ever be. But used judiciously, it can be a set of stepping stones or even a foundation for broader sustainability efforts by many organizations.

From *Leading with LEED™*, by Joshua Skov  
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## I. BENEFITS OF SUSTAINABLE DESIGN AND LEED™ CERTIFICATION

The results of including sustainable design objectives and using LEED™ as a design development tool generate economic and environmental benefits that reach beyond the project level to include the neighborhood and global level as well. These include direct and indirect economic, environmental and community benefits.

### Direct Economic Benefits

- **Competitive First Costs (initial)**

To reduce initial development costs, objectives should be set before any planning or design is initiated. Once the goals are set, the architects, engineers, planners and maintenance managers should understand the project goals. This will allow them to take advantage of synergies between disciplines. These efficiencies can lower the first costs and ensure the building functions as planned.

- **Reduced Operating and Life-Cycle Costs**

Appropriate sustainable design significantly lowers utility costs by utilizing energy efficient insulation, proper building orientation and use of daylighting. These techniques may enable the project team to reduce the size and scale of heating and cooling systems to precisely match a building's needs. Additionally, ensuring proper function of these systems through building and systems commissioning can ensure high performance and high cost savings over the life of the building.

- **Increased Building Valuation**

A decrease in overall operating costs of a building or facility, expressed as Net Operating Income, can directly increase its asset value.

- **Decreased Vacancy and Improved Tenant Retention**

Sustainable buildings have a marketing advantage with many types of tenants, renters, and industries. In many cases they are desired by companies that rent, but want to enjoy low energy costs and high worker productivity.

### Productivity Benefits (Indirect Economic Benefits)

- **Improved Occupant Performance**

There is an estimated \$29 –168 billion lost yearly due to productivity losses in the U.S. alone. Day-lighting, along with livable, comfortable work areas have been shown to both indirectly and directly increase productivity and reduce sick days and absenteeism.

At West Bend Mutual Insurance Company's headquarters in West Bend, WI, employee productivity increased by 16% due to sustainable design incorporating low-level ambient lighting, task lighting and individual workstation controls that maximize employee comfort. The productivity increases can be translated into annual savings of \$364,000 based on a \$13 million annual payroll.

- **Reduced Absenteeism and Employee Turnover**

Providing a healthy workplace improves employee satisfaction. Sustainable interior building materials that don't off-gas volatile organic compounds, formaldehydes, or process related volatiles (paints, glues, carpets, etc.) make for enhanced occupant comfort and health.

- **Increased Retail Sales**

Studies have shown an approximate 40% sales improvement in day-lit retail outlets over stores with conventional lighting designs.

## Environmental and Community Benefits

- **Increased Energy Efficiency and a Cleaner Environment**

High efficiency energy and lighting systems reduce the impacts of the built environment on natural resource consumption, in addition to reducing energy costs. The combustion of fossil fuels associated with energy production results in the conversion of SO<sub>2</sub> and NO<sub>x</sub> in the atmosphere into fine-particle aerosols that we breathe. These aerosols are linked to asthma, heart attacks, and chronic bronchitis. Fine particulates also contribute to fine-particle soot. These particles may absorb trace elements of other dangerous substances such as cadmium and arsenic, and transmit them out into the atmosphere.

- **Efficient Infrastructure Use**

Development in already-dense urban environments takes advantage of infrastructure that is already in place, including transportation, sewer, storm water, electricity and phone networks. The costs associated with developing this infrastructure in suburban locations are borne by all rate- and taxpayers.

- **Materials Use Reduction and Local Materials**

Reducing the use of building materials can not only minimize the initial capital investment of building development, but also reduces the life-cycle impacts of materials from a cradle-to-grave perspective. Fewer materials used initially will result in fewer materials sent to landfills at the end of their useful life. Additionally, using materials that are produced or procured locally will reduce transportation-related expenses (and associated transportation-related emissions) and support the local and regional economy.

- **Increased Ecological Sensitivity**

Sustainable design minimizes the ecological problems associated with urban and suburban development, including exterior light pollution, urban heat islands, and the destruction of natural habitat.

## Formal LEED™ Certification

Formal LEED™ Certification distinguishes building projects that have demonstrated a commitment to sustainability by meeting the highest performance standards, and which have fully documented the improvements that have been made at the facility. A LEED™ certified building can generate significant competitive advantages to an owner or developer, including:

- Public relations and marketing exposure via local and national news media, and through regional organizations such as Focus on Energy, the Wisconsin Green Building Alliance and WasteCap Wisconsin.
- National and international recognition through the U.S. Green Building Council web site, their listing and archive of case studies, and USGBC media announcements.
- Validation of achievement and recognition as a leader in the green building sector.
- Contribution at the local, state and national levels to the sustainable and green building knowledge base.
- LEED™ Certification plaque and certificate for their building.

## II. GETTING STARTED WITH LEED™ AND THE LEED™ CERTIFICATION PROCESS

The LEED™ certification process is a three step process:

1. Project Registration
  - Welcome Packet and on-line project listing
2. Documentation
  - Reference Package
  - Credit Rulings
3. Building Certification
  - Upon documentation submittal and USGBC review

### Registration

Project registration is the first step towards earning LEED™ Certification for your building project. The information supplied on the registration form will be used by the USGBC for project tracking, answering credit interpretation requests, and preparing project case studies upon certification. Aggregate data for all registered projects will be used to expand the growing knowledge base of green building costs and trends. During project design and construction, USGBC will assign your project a designated project contact.

### Documentation

Once a project is registered, the project team begins to prepare documentation and calculations to satisfy the prerequisites and credit submittal requirements. In some cases, project teams may encounter difficulties applying a LEED™ prerequisite or credit to a specific project. USGBC has established a review process for registered project inquiries, called credit interpretation requests (CIR), to ensure that rulings are consistent and available to other projects.

### Certification

In order to earn LEED™ certification, the applicant project must satisfy all of the prerequisites and a minimum number of credits to attain a LEED™ rating level. The certification review process includes the following:

#### 1. Application Submittal.

The project team submits two copies of the project application and the corresponding fee to the LEED™ Certification Manager. A complete application includes the following:

- The LEED™ Letter Template for each prerequisite and credit
- LEED™ registration information, including project contact, project type, project size, number of occupants, date of construction completion, etc.
- an overall project narrative including at least three project highlights;
- the LEED™ Project Checklist/Scorecard indicating projected prerequisites and credits and the total score for the project
- Drawings and photos (8.5x11 or 11x17) illustrative of the project, including:
  - Site plan
  - Typical floor plan
  - Typical building section
  - Typical or primary elevation
  - Photo or rendering of project

## **2. LEED™ Technical Reviews.**

The LEED™ Letter Templates and additional submittals for each prerequisite and credit are reviewed for compliance. Within 30 days of administrative approval, the USGBC issues a Preliminary LEED™ Review document noting credits awarded, pending and denied. In addition, up to six prerequisites and/or credits shall be randomly selected for audit. The project team has 30 days from the receipt of the Preliminary Review to provide corrections and/or additional supporting documents as a supplementary submittal to the application. The USGBC conducts a Final LEED™ Review of the application within three weeks of receiving the resubmittal and notifies the project contact of certification status.

## **3. Award.**

Upon the project's acceptance, or if it has not appealed the rating within 30 days, the LEED™ certification is final. The project may then be referred to as a LEED™ certified building. The USGBC presents the project team with an award letter, certificate and metal LEED™ plaque indicating the certification level.

## **4. Appeal.**

If the project team feels that sufficient grounds exist to appeal a credit denied in the Final LEED™ Review, it has the option of appeal. The appeal fee is \$250 per credit appealed. A review of these items will occur within 30 days at which time a Revised Final LEED™ Review will be issued to the applicant.

### III. CREDIT LEVELS AND DEVELOPER EFFORT REQUIRED TO SUCCESSFULLY DESIGN AND BUILD LEED™ RATED PROJECTS IN THE MEMOMONEE VALLEY

LEED™ is a useful guide for sustainable development in the Menomonee Valley. Many credits can be achieved with little effort.

LEED™ certified professionals have evaluated each LEED™ credit to determine the effort required to meet it in the Menomonee Valley. Each LEED™ credit was rated 'low,' 'medium,' or 'high' effort required. In reality, the points in each effort level indicate a range of potential credits, and are not exact or guaranteed. The effort level is dependent on the exact site and the nature of the project.

Many of the 'low-hanging fruit' and medium effort points are attainable with any project attempted in the Valley. Other points will be more difficult to obtain if older industrial sites are chosen for remodeling or renovation.

LEED™ Certified projects are attainable in the Valley with a medium level of effort expended. Silver, Gold and Platinum building projects will require planning, programming and the expenditure of additional dollars and time.

#### Low Effort/Resources (See Page 8 for an itemization of these 15 points)

The first level of LEED™ credits covers those points that could be considered "low-hanging fruit" in the Menomonee Valley. These are credits that require very little time, effort and financial resources to meet the requirements of the USGBC. While these 15 points do not get a development into the range of LEED™ Certification, they would provide a significant head start towards the 26 points required for certification.

#### Moderate Effort/Resources Description (See Page 10 for an itemization of these 32 points)

The next level of effort, which takes the Valley project into the Certification level and potentially the Silver level, will require much more pre-planning and design time, interaction with green suppliers, commissioning levels and a LEED™ certified architect, scientist or planner. It is important to note that it is unlikely that Menomonee Valley projects will receive more than one or two credits in the LEED™ Innovation & Design Process section.

LEED™ Credit Ratings: Point Earnings for LOW, MEDIUM, and HIGH EFFORT expended in the Menomonee River Valley				
CATEGORY of LEED™	EFFORT LEVELS			
	LOW	MED	HIGH	
LEED™ Prerequisites	Required			
Sustainable Sites	6	5	3	
Water Efficiency	0	2	3	
Materials and Resources	3	3	7	
Energy and Atmosphere	4	4	9	
Indoor Environmental Quality	2	13	0	
Innovation and Design Process	0	5	0	
POINT TOTALS		15	32	22
LOW + MED EFFORT			47	
LOW + MED+ HIGH				69
<b>Certification Level</b>	<b>Points Required</b>			
LEED™ Certified	26-32			
LEED™ Silver	33-38			
LEED™ Gold	39-51			
LEED™ Platinum	52-69			
Note: A number of credits in the High category may not be attainable for the majority of sites in the Valley				

## High Effort/Resources (See Page 13 for an itemization of these 22 points)

Finally, the greatest effort reaches the Gold and Platinum LEED™ levels. There may be only a few sites and a few new construction projects that will be able to attain these levels in the Valley. To some owners/developers the prestige of the Gold or Platinum is worth the premium first costs.

## IV. REFERENCES

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

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

USGBC LEED™ version 2.0 Member Packet

G-Rated, Portland, OR: <http://www.green-rated.org/g Rated/grated.html>

LEED™ for British Columbia: <http://www.cagbc.org/>

Minnesota Sustainable Guidelines: <http://www.csbr.umn.edu/b3/>

Rocky Mountain Institute: [www.rmi.org](http://www.rmi.org)

WasteCap Wisconsin: [www.wastecapwi.org](http://www.wastecapwi.org)

Wisconsin Green Building Alliance: [www.wgba.org](http://www.wgba.org)

Building Green on a Budget: [http://www.buildinggreen.com/features/lc/low\\_cost.cfm](http://www.buildinggreen.com/features/lc/low_cost.cfm)

LEED™ Credits Attainable with Low Effort/Resources in the Menomonee River Valley (LEED™ V2.1)

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
<b>Sustainable Sites</b>				
Prereq 1	R	Erosion & Sedimentation Control	Local codes exist for sediment control that must be followed	
SS 3	1	Brownfield Redevelopment	Credit given for redeveloping a brownfield site	majority of Valley is considered brownfield
SS 4.1	1	Alternative Transportation	Develop w/in 1/4 mile of 2+ bus routes	W. St. Paul (route 13) and 16th Street (routes 2 & 20)
SS 4.2	1	Alternative Transportation	Provide bike racks and changing facilities	Free bike racks from DPW, can use existing bathroom facilities
SS 5.2	1	Reduced Site Disturbance	Reduce footprint to exceed open space regulations	none - No open space requirements for I/A/125
SS 6.2	1	Stormwater Management	Remove 80% TSS (Total Suspended Solids) from stormwater runoff	required by city for some projects as of January 2002
SS 7.1	1	Heat Island Reduction	Provide shade w/in 5 years on 30% of non-roof impervious surfaces	Plant trees in Parking lot, along street and in available greenspace
<b>Materials &amp; Resources</b>				
Prereq 1	R	Storage & Collection of Recyclables	Local regulations require separation of recyclables (office paper and plastic/glass/aluminum)	
MR 2.1	1	Construction Waste management	Recycle/salvage 50% of construction waste	Contact WasteCap Wisconsin
MR 4.1	1	Recycled Content	25%+ of building materials contain recycled materials	Recycled concrete in parking lot base; steel has recycled content; Central Redimix (fly ash/slag concrete-no extra cost); recycled gypsum drywall (US Gypsum, E. Chicago)
MR 5.1	1	Local/Regional Materials	20%+ of building materials to be manufactured w/in 500 miles	Marseilles Brick Co. (Chicago, Ill.); Sioux City Brick (Iowa); Drywall (US Gypsum, E. Chicago); Central Redimix Concrete
<b>Energy &amp; Atmosphere</b>				
Prereq 2	R	Minimum Energy Performance	Meet ASHRAE 90.1-1999	Met by State building code
Prereq 3	R	CFC Reduction	No use of new CFC-based HVAC system or a phase-out plan for reused CFC-based HVAC equipment	TBD by HVAC design

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
EA Credit 1.1	2	Optimize Energy Performance	Exceed <i>ASHRAE Standard 90.9-1999</i> by 20%	
EA Credit 2.1	1	Renewable Energy	Supply 5% of building's total energy use through on-site renewable energy systems	
EA Credit 4	1	Elimination of HCFC's and Halons	Install HVAC, refrigeration and fire suppression equipment that is HCFC- and Halon-free	
<b>Indoor Environmental Quality</b>				
Prereq 1	R	Minimum IAQ Performance	Minimum IAQ per ASHRAE 62-1999	Requirements should be introduced in design phase
Prereq 2	R	Environmental Tobacco Smoke Control	Any indoor smoking areas must be separately ventilated to prevent recirculation	
IEQ Credit 1	1	CO2 Monitoring	Install permanent CO2 monitoring system and specify set point parameters that maintain indoor CO2 levels below outdoor CO2 + 530ppm	
IEQ Credit 2	1	Increase Ventilation Effectiveness	Air Change Effectiveness greater than or equal to 0.9 per <i>ASHRAE 129-1997</i>	
<b>Low-Effort Subtotal</b>				
	<b>15</b>			

LEED™ Credits Attainable with Moderate Effort/Resources in the Menomonee River Valley (LEED™ V2.1)

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
<b>Sustainable Sites</b>				
SS Credit 4.4	1	Alternative Transportation	Do not exceed minimum parking requirements for zoning	Minimum for industrial zoned parcels: 1space/250sqft of building (for first 2000 ft <sup>2</sup> ), 1 space/2000 ft <sup>2</sup> thereafter
SS Credit 5.1	1	Site Disturbance	Restore 50% of existing habitat on site	
SS Credit 6.1	1	Stormwater Management	No increase in the amount of stormwater runoff from site	landscaping slows/absorbs water, permeable paving/geogrid systems, collection of rainwater for landscape maintenance
SS Credit 7.2	1	Heat Island Reduction	Install Energy Star Roofing	Extra cost for roofing materials (Hapalon reduces structural load as well)
SS Credit 8	1	Light Pollution Reduction	Indoor & outdoor light not to add to local light pollution	cost of lighting structures (inside & outside)
<b>Water Efficiency</b>				
WE Credit 1.1	1	Water Efficient Landscaping	Use captured rain OR high tech. Irrigation to reduce potable water for landscaping by 50%	Use native plants (low water use), minimize amount of turf grasses and install drip irrigation system.
WE Credit 3.1	1	Water Use Reduction	Use 20% less water than baseline calculations	Low-flow toilets, water efficient plumbing, waterless urinals, etc.
<b>Materials &amp; Resources</b>				
MR Credit 3.1	1	Resource reuse	Specify Salvaged/refurbished materials for 5% of project	Refurbished office panels, counter tops, furniture, etc.
MR Credit 4.2	1	Recycled Content	50%+ of building materials contain recycled materials	Recycled carpeting (Collins & Aikman); recycled ceramic tiles
MR Credit 5.2	1	Local/Regional Materials	Of materials manufactured regionally, 50% must be harvested, extracted or recovered within 500 miles	Recycled concrete in parking lot base; Central Redimix (fly ash/slag concrete-no extra cost); recycled gypsum drywall (US Gypsum, E. Chicago) - All recovered locally/regionally
<b>Energy &amp; Atmosphere</b>				
EA Credit 1.2	2	Optimize Energy Performance	Exceed ASHRAE Standard 90.9-1999 by 30%	
EA Credit 2.2	1	Renewable Energy	Supply 10% of building's total energy use through on-site renewable energy systems	

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
EA Credit 6	1	Green Power	Engage in 2-year contract to purchase power that meets the Center for Resource Solutions' <i>Green-E</i> requirements	We Energies' Energy for Tomorrow program could apply to this credit. Contact: Gary Evans, Environmental Programs (414) 221-3553
<b>Indoor Environmental Quality</b>				
IEQ Credit 3.1	1	Construction IAQ Management Plan: Prior	Develop and Implement IAQ Management Plan for the construction and pre-occupancy phases of the building	
IEQ Credit 3.2	1	Construction IAQ Management Plan: During	Conduct 2-week minimum flush-out with new filtration media at 100% outdoor air after construction ends and prior to move-in	
IEQ Credit 4.1	1	Low-emitting materials, Adhesives	Adhesives must meet or exceed VOC limits of South Coast Air Quality Management District <i>Rule #1168</i> , AND all sealants used as filler meet Bay Area Air Resources Board <i>Reg. 8, Rule 51</i>	
IEQ Credit 4.2	1	Low-emitting materials, Paints	Paints and coatings meet or exceed <i>Green Seal</i> requirements	
IEQ Credit 4.3	1	Low-emitting materials, Carpet	Carpet systems meet or exceed Carpet and Rug Institute's <i>Green Label IAQ Test Program</i>	
IEQ Credit 4.4	1	Low-emitting materials, Composite wood	Composite wood or agrifiber products contain no added urea-formaldehyde resins	
IEQ Credit 5	1	Indoor Chemical and Pollutant Source Control	Design to minimize cross-contamination of regularly occupied areas by chemical pollutants	
IEQ Credit 6.1	1	Controllability of Systems, Operable Window	Provide a minimum of one operable window and one lighting control zone per 200 sq. ft. for all occupied areas within 15 ft. of perimeter wall	
IEQ Credit 6.2	1	Controllability of Systems, Individual Control	Provide controls for each individual for airflow, temperature and lighting for 50% of non-perimeter, regularly occupied areas	
IEQ Credit 7.1	1	Thermal Comfort, ASHRAE	Comply with <i>ASHRAE Standard 55-1992, Addenda 1995</i> for thermal standards including humidity	
IEQ Credit 7.2	1	Thermal Comfort, Monitoring System	Install permanent temperature and humidity monitoring system	
IEQ Credit 8.1	1	Daylight and Views, sunlight	Achieve minimum daylight factor of 2% in 75% of all space occupied for critical visual tasks	
IEQ Credit 8.2	1	Daylight and Views, direct line of sight	Direct line of sight to vision glazing from 90% of all regularly occupied spaces	

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
<b>Innovation &amp; Design Process</b>				
<b>Innovation &amp; Design Process</b>	1	TBD		
IED Credit 1.2	1	TBD		
IED Credit 1.3	1	TBD		
IED Credit 1.4	1	TBD		
IED Credit 2	1	Accredited Professional	At least one principal participant of the project team has successfully completed the LEED™ Accredited Professional Exam	
<b>Moderate-Effort Subtotal</b>				
<b>Moderate-Effort Subtotal</b>	<b>32</b>			

LEED™ Credits Attainable with High Effort/Resources in the Menomonee River Valley (LEED™ V2.1)

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
<b>Sustainable Sites</b>				
SS Credit 1	1	Site Selection	Do not build in a flood plane or within 100feet of a wetland	Most of Valley is in floodplain or filled-in wetlands
SS Credit 2	1	Urban Redevelopment	develop in zone with minimum density regulations of 60,000 ft <sup>2</sup> /acre	City has no density regulations for industrial zoned sites, small industry may have difficult time developing to this density
SS Credit 4.3	1	Alternative Transportation	Provide alternative fueling stations for 3% of total vehicles	High cost to implement
<b>Water Efficiency</b>				
WE Credit 1.2	1	Water Efficient Landscaping	Use only captured water for irrigation and non-potable uses	Cost of cistern/water collection systems
WE Credit 2	1	Innovative Water Use Technologies	Reduce potable water use (for wastewater) by 50% or treat 100% of wastewater	Cost of high efficiency products or treatment systems
WE Credit 3.2	1	Water Use reduction	Reduce potable water use by 30%	Low-flow toilets, water efficient plumbing, waterless urinals, etc.
<b>Materials &amp; Resources</b>				
MR Credit 1.1	1	Building Reuse	Reuse 75% of existing structure	Not many existing buildings available for redevelopment - easy credit if building available (WasteCap)
MR Credit 1.2	1	Building Reuse	Reuse 100% of existing structure	Not many existing buildings available for redevelopment - moderate credit if building available (WasteCap)
MR Credit 1.3	1	Building Reuse	Reuse 100% of existing structure and 50% of non-shell	Not many existing buildings available for redevelopment - high effort credit if building available (WasteCap)
MR Credit 2.2	1	Construction waste Management	Recycle 75% of construction waste	WasteCap
MR Credit 3.2	1	Resource Reuse	Specify salvaged materials for 10% of the building	Possible added cost for salvaged materials
MR Credit 6	1	Rapidly Renewable Materials	Specify rapidly renewable materials for 5% of building	Wheat board cabinet doors or counter tops (double the cost of particle board)

LEED™ Credit	Points	Description	Detailed Description	Rationale & Discussion
MR Credit 7	1	Certified Wood	Specify certified wood for 50% of all wood products in building	Certified wood paneling/veneer for cabinets or counter tops (increased cost of materials)
<b>Energy &amp; Atmosphere</b>				
EA Credit 1.3	2	Optimize Energy Performance	Exceed <i>ASHRAE Standard 90.1-1999</i> by 40%	
EA Credit 1.4	2	Optimize Energy Performance	Exceed <i>ASHRAE Standard 90.9-1999</i> by 50%	
EA Credit 1.5	2	Optimize Energy Performance	Exceed <i>ASHRAE Standard 90.9-1999</i> by 60%	
EA Credit 2.3	1	Renewable Energy	Supply 20% of building's total energy use through on-site renewable energy systems	
EA Credit 3	1	Additional Commissioning	5 Additional tasks in addition to commissioning prerequisite	
EA Credit 5	1	Measurement and Verification	Comply with Option B of U.S. DOE's <i>IPMVP</i>	
<b>High-Effort Subtotal</b>	<b>22</b>			