



## Version 2

### How to Interpret this Report

**Purpose** The Leadership in Energy and Environmental Design (LEED) Rating System was designed by the US Green Building Council to encourage and facilitate the development of more sustainable buildings. The Student Life Center project was evaluated according to this system and the Final Rating is totaled below.

**Environmental Categories** The report is organized into five environmental categories as defined by LEED including: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources and Indoor Environmental Quality. The category of Innovation and Design Process is also included.

**LEED Prerequisites** Prerequisites must be achieved. Non-compliant prerequisites must be resolved before a certification can be awarded.

**LEED Credits** The environmental categories are subdivided into the established LEED credits, which are based on desired performance goals within each category. An assessment of whether the credit is earned, pending, or rejected is made and a narrative describes the basis for the assessment.

**Achieved** The applicant has provided the mandatory documentation which supports the achievement of the credit requirements, achieving the associated points. **26** Currently the project has scored the adjacent points in this category.

**Denied** The applicant has applied for a point in a particular credit, but has misinterpreted the credit intent or cannot substantiate meeting the requirements. **7** Currently the project has the adjacent points in this category.

**Rating Final Rating is Certified**

Official LEED v2 Scores: Certified: 26-32 Silver Rating: 33-38 Gold Rating: 39-51 Platinum Rating: 52 +

Achieved	Denied		
7	<input type="checkbox"/>	2	<b>Sustainable Sites</b> <span style="float: right;"><b>Possible Points 14</b></span>
0	<input type="checkbox"/>	<input type="checkbox"/>	<b>Erosion &amp; Sedimentation Control</b> <span style="float: right;">Prerequisite 1-Version 2.1</span> Preliminary Review: The signed LEED Letter Template states that the EPA BMPs have been followed. Measures include soil retention, dust control, silt fences, storm drain inlet protection, temporary seeding, mulching, drainage swales and temporary sediment basins.
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Site Selection</b> <span style="float: right;">Credit 1-Version 2.1</span> Preliminary Review: The signed LEED Letter Template declares that the site does not meet any of the prohibited criteria. A site plan and aerial photo have been provided in support of credit compliance.
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Urban Redevelopment</b> <span style="float: right;">Credit 2-Version 2.1</span> Preliminary Review: The signed LEED Letter Template indicates that the 63,815 sf/acre project is located in an area with an average development density of 61,968 sf/acre. A scaled site plan and campus wide area calculations have been provided in support of credit compliance.
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<b>Brownfield Redevelopment</b> <span style="float: right;">Credit 3-Version 2.1</span> Preliminary Review: No Comments.
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Alternative Transportation, Public Transportation Access</b> <span style="float: right;">Credit 4.1-Version 2.1</span> Preliminary Review: The signed LEED Letter Template states that there are 9 bus lines and 4 campus shuttle lines within 1/4 mile of the project site. A scaled site map has been provided.
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b> <span style="float: right;">Credit 4.2-Version 2.1</span> Preliminary Review: The signed LEED Letter Template declares that 48 bicycle stalls are provided within 200 yards of the project for 310 occupants. A site plan highlighting building entrances, locations of bike racks and the shower location, in the recreation center, has been provided.
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<b>Alternative Transportation, Alternative Fuel Refueling Stations</b> <span style="float: right;">Credit 4.3-Version 2.1</span> Preliminary Review: No Comments.
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Alternative Transportation, Parking Capacity</b> <span style="float: right;">Credit 4.4-Version 2.1</span> Preliminary Review: The signed LEED Letter Template declares that the parking for the project does not exceed minimum zoning requirements and 8 preferred carpool parking spaces are provided for 5.16 % of building occupants. A letter from the Director of Campus Planning has been submitted describing the carpool program. However, documentation of minimum zoning requirements has not been provided.  TECHNICAL ADVICE: Please provide documentation describing the minimum zoning requirements.
Final Review	<input type="checkbox"/>	<input type="checkbox"/>	The applicant submitted a copy of the zoning requirements, a zoning map and a spreadsheet of the university's parking spaces per lot which supports credit achievement.
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<b>Reduced Site Disturbance, Protect or Restore Open Space</b> <span style="float: right;">Credit 5.1-Version 2.1</span> Preliminary Review: No Comments.

Achieved	Denied
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Reduced Site Disturbance, Development Footprint**

Credit 5.2-Version 2.1

Preliminary Review: A signed LEED Letter Template declares that there are no local zoning requirements for open space, so an area of open space has been allocated adjacent to the building which is equal in size to the building footprint. A site plan has been provided showing the location of the open space.

A letter from the building owner declaring that this open space will be conserved for the life of the building has not been provided as required by the LEED Letter Template.

Based on the LEED-NC v2.1 Reference Guide page 47, open space is defined as vegetated and pervious. The area indicated on the site plan indicates that the designated open space is primarily impervious surface. CIR rulings dated 5/23/2005 and 4/18/2005 note that, in a campus setting, the credit intent can be met with designated open space that is separate from the project site as long as the open space is preserved as such for the life of the building. It should be noted that the proposed strategy is acceptable only in the context of a campus setting. To meet credit requirements, the land bank must be within the contiguous limits of the campus where the applicant project is located. This land also may not be designated for any other LEED projects.

**TECHNICAL ADVICE:** Please refer to the comments above and if possible, resubmit a site plan with area calculations demonstrating that an open space equal to the size of the building footprint has been designated open space for the life of the building. Provide evidence that this space is vegetated and pervious. Also submit a letter from the owner stating that this area will remain open space for the life of the building.

**Requirements** Reduce the development footprint (defined as entire building footprint, access roads and parking) to exceed the local zoning's open space requirement for the site by 25%. For areas with no local zoning requirements (e.g., some university campuses and military bases), designate open space area adjacent to the building that is equal to the building footprint.

**Submittals** Provide a copy of the local zoning requirements highlighting the criteria for open space. Provide the LEED Letter Template, signed by the civil engineer or responsible party, demonstrating and declaring that the open space exceeds the local zoning open space requirement for the site by 25%. OR For areas with no local zoning requirements (e.g., some university campuses, military bases), designate open space area adjacent to the building that is equal to the development footprint. Provide a letter from the property owner stating that the open space will be conserved for the life of the building.

**Final Review** This credit has been withdrawn.

Achieved	Denied
<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Stormwater Management, Rate and Quantity**

Credit 6.1-Version 2.1

Preliminary Review: The signed LEED Letter Template declares that implementation of the project stormwater management plan results in at least a 25% decrease in the rate and quantity of stormwater runoff. Supporting calculations have been provided. There are a few issues that require clarification.

In the submitted Design Case Table, user defined surface type, roof- drain to irrigation tank, was included along with the runoff coefficient of 0.00. No information was provided that describes the method used for determining the runoff coefficient as it pertained to contributing to the catchment system or how much runoff would be required to overflow the system. Also, no information was provided to describe the estimated demands on the collection tank.

More information is needed to clarify and support the coefficient values. When developing justification for the reduced runoff coefficient for area contributing to the catchment system, consider how much runoff will overflow the system. Explain how the irrigation tank will be used to irrigate and what irrigation needs the building has. Consider these demands when justifying the runoff coefficient.

There also appears to be a discrepancy between the roof area used for the stormwater calculations (161,626 sf), and the roof area submitted under SSc7.2 (24,381 sf).

TECHNICAL ADVICE: Please provide a narrative describing the stormwater reduction system in place including the drainage to an irrigation tank. Explain the roof area used in these calculations compared to SSc7.2. Provide clarification for the runoff coefficient used for the roof- drain to irrigation tank and additional documentation explaining the tank's estimated demands to confirm the runoff quantities. Revise the baseline and design case imperviousness calculations, as necessary.

**Requirements** If existing imperviousness is less than or equal to 50%, implement a stormwater management plan that prevents the post-development 1.5 year, 24 hour peak discharge rate from exceeding the pre-development 1.5 year, 24 hour peak discharge rate. OR If existing imperviousness is greater than 50%, implement a stormwater management plan that results in a 25% decrease in the rate and quantity of stormwater runoff.

**Submittals** Provide the LEED Letter Template, signed by the civil engineer or responsible party, declaring that the post-development 1.5 year, 24 hour peak discharge rate does not exceed the pre-development 1.5 year 24 hour peak discharge rate. Include calculations demonstrating that existing site imperviousness is less than or equal to 50%. OR Provide the LEED Letter Template, signed by the civil engineer or responsible party, declaring and demonstrating that the stormwater management strategies result in at least a 25% decrease in the rate and quantity of stormwater runoff. Include calculations demonstrating that existing site imperviousness exceeds 50%.

**Final Review** The applicant submitted a narrative stating that three buildings on campus contribute to two storage tanks. The Tangeman University Center, the Student Life Center, and the collective site areas contribute to the main tank. This tank holds 660,382 gallons of stormwater which is then released into the city stormwater system. The University Recreation Center roof, (161,626 sf) contributes to the second tank, for use for irrigation. The irrigation tank holds 57,065 gallons which meets the estimated irrigation demands for the Sigma Commons and Campus Green.

The main tank reduces the rate of stormwater released into the city storm water system. However, the quantity of stormwater is not reduced by the stormwater management system installed. The credit requires that both rate and quantity of stormwater runoff be reduced by 25%. Since the quantity of the stormwater runoff is not affected by the system installed, the credit cannot be awarded.

Not Attempting
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**Stormwater Management, Treatment**

Credit 6.2-Version 2.1

Preliminary Review: No Comments.

Achieved	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Landscape &amp; Exterior Design to Reduce Heat Islands, Non-Roof Surfaces</b> <span style="float: right;">Credit 7.1-Version 2.1</span>
<p>Preliminary Review: The signed LEED Letter Template states that a minimum of 30% of non-roof impervious surfaces areas will be shaded within five years, and/or constructed with light-colored/high albedo materials (reflectance at 0.3). The narrative provided states that the project is utilizing a combination of strategies to meet the credit requirements including light-colored concrete, pervious paving, landscape and shade produced from this building and adjacent buildings. A shade study has been provided highlighting shadow patterns during January and June. In addition, photos and a site plan showing locations of landscape, paved and pervious paved areas has been submitted.</p> <p>It is unclear what material the light-colored paving is composed of and if it meets the definition of high albedo. Please see the LEED-NC v2.1 Reference Guide page 63 for a description of paving materials. It also appears that the pervious paving installed is decomposed granite which typically does not increase perviousness by at least 50% and therefore does not qualify towards contributing toward credit calculations. In reference to the shade study, for credit calculations, shade must be calculated on June 21st at noon solar time to determine the maximum shading effect.</p> <p>TECHNICAL ADVICE: Please address the comments above and provide an area site plan with calculations demonstrating that a minimum of 30% of non-roof impervious surface areas will be shaded within five years, and /or constructed with light-colored/high albedo materials (reflectance of at least 0.3).</p>			
		<b>Final Review</b>	The applicant submitted a narrative, a site plan and calculations demonstrating that a minimum of 30% of non-roof impervious surfaces are shaded and/or constructed with high albedo materials.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Landscape &amp; Exterior Design to Reduce Heat Islands, Roof Surfaces</b> <span style="float: right;">Credit 7.2-Version 2.1</span>
<p>Preliminary Review: The signed LEED Letter Template has been provided stating that roofing materials for 100% of the project's roof surface meet the emissivity and reflectivity requirements of the credit.</p>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Light Pollution Reduction</b> <span style="float: right;">Credit 8-Version 2.1</span>
<p>Preliminary Review: No Comments.</p>			

Achieved	Denied		Possible Points
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>5</b>
<b>Water Efficiency</b>			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.1-Version 2.1
		<b>Water Efficient Landscaping, Reduce by 50%</b>	
		Preliminary Review: No Comments.	
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.2-Version 2.1
		<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b>	
		Preliminary Review: No Comments.	
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2-Version 2.1
		<b>Innovative Wastewater Technologies</b>	
		Preliminary Review: No Comments.	
1	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.1-Version 2.1
		<b>Water Use Reduction, 20% Reduction</b>	
		Preliminary Review: The signed LEED Letter Template and calculations have been provided demonstrating that water use has been reduced by 20.34% through the use of lavatory aerators. The methodology used for the calculations is not consistent with that in the LEED-NC v2.1 Reference Guide pages 103-105. The daily uses of the conventional water closet and conventional urinal in the design case are not the same as those in the baseline case. The usage patterns must be the same across the design case and the baseline case. When the baseline case usage patterns are made consistent with the design case the water use reduction increases to 24.19% meeting the credit threshold of 20%.	
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.2-Version 2.1
		<b>Water Use Reduction, 30% Reduction</b>	
		Preliminary Review: No Comments.	

Achieved	Denied		Possible Points
4	1	<b>Energy &amp; Atmosphere</b>	<b>17</b>
0		<b>Fundamental Building Systems Commissioning</b> Preliminary Review: This prerequisite has been selected for audit.  TECHNICAL ADVICE: Please provide a narrative outlining the role of the commissioning agent and the relationship of the Cx to the project team. Provide evidence of the basis of design review. Provide a copy of the commissioning plan, prefunctional data, commissioning specs, and excerpts from or a summary of the commissioning report. If under contract, please provide an excerpt from the contract demonstrating prerequisite achievement.	Prerequisite 1-Version 2.1
0		<b>Final Review</b> The applicant provided supporting documentation demonstrating that the required commissioning activities have been completed. <b>Minimum Energy Performance</b> Preliminary Review: The signed LEED Letter Template declares that the project complies with ASHRAE 90.1-1999.	Prerequisite 2-Version 2.1
0		<b>CFC Reduction in HVAC&amp;R Equipment</b> Preliminary Review: The applicant has submitted a signed Letter Template declaring that there are no CFC-based refrigerants in the buildings systems.	Prerequisite 3-Version 2.1
2		<b>Optimize Energy Performance, 20% New /10% Existing</b> Preliminary Review: The applicant has submitted a signed Letter Template declaring that the project performs 26% better than ASHRAE 90.1-1999 as per the ECB Method. The applicant has submitted a narrative describing the project, energy rates, ECB table, ECB compliance forms, output reports from the simulation program.	Credit 1.1-Version 2.1
1		<b>Optimize Energy Performance, 30% New /20% Existing</b> Preliminary Review: Please see comments for EAc1.1.	Credit 1.2-Version 2.1
Not Attempting		<b>Optimize Energy Performance, 40% New /30% Existing</b> Preliminary Review: No Comments.	Credit 1.3-Version 2.1
Not Attempting		<b>Optimize Energy Performance, 50% New /40% Existing</b> Preliminary Review: No Comments.	Credit 1.4-Version 2.1
Not Attempting		<b>Optimize Energy Performance, 60% New /50% Existing</b> Preliminary Review: No Comments.	Credit 1.5-Version 2.1
Not Attempting		<b>Renewable Energy, 5% Contribution</b> Preliminary Review: No Comments.	Credit 2.1-Version 2.1
Not Attempting		<b>Renewable Energy, 10% Contribution</b> Preliminary Review: No Comments.	Credit 2.2-Version 2.1

Achieved	Not Attempting	Denied		
	<input type="checkbox"/>	<input type="checkbox"/>	<b>Renewable Energy, 20% Contribution</b>	Credit 2.3-Version 2.1
	Preliminary Review: No Comments.			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Additional Commissioning</b>	Credit 3-Version 2.1
Preliminary Review: The signed LEED Letter Template declares that the required commissioning activities have been completed or are under contract.				
	<input type="checkbox"/>	<input type="checkbox"/>	<b>Ozone Protection</b>	Credit 4-Version 2.1
Preliminary Review: No Comments.				
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Measurement &amp; Verification</b>	Credit 5-Version 2.1
Preliminary Review: The applicant submitted a signed Letter Template listing end-uses for which continuous metering equipment has been installed and a Measurement & Verification (M&V) Plan. However the M&V Plan submitted does not cover all the requirements of the credit submittal. The applicant has also submitted collected data from the various buildings on campus. It is not clear from the submitted data that all the EEM's are covered for Measurement and Verification				
TECHNICAL ADVICE: Please refer to the LEED-NC v2.1 Reference Guide pages 173-179 for appropriate design approach and submittal guidance. Please ensure that all the requirements listed in Table 2 on page 176 are covered by the M&V Plan. If data-sets are submitted, please ensure that they are broken down to allow the appropriate representation of the EEM measured and that it is clear that they are for the Student Center building.				
<b>Requirements</b> Install continuous metering equipment for the following end-uses: Lighting systems and controls Constant and variable motor loads Variable frequency drive (VFD) operation Chiller efficiency at variable loads (kW/ton) Cooling load Air and water economizer and heat recovery cycles Air distribution static pressures and ventilation air volumes Boiler efficiencies Building-related process energy systems and equipment Indoor water risers and outdoor irrigation systems Develop a Measurement and Verification plan that incorporates the monitoring information from the above end-uses and is consistent with Option B, C or D of the 2001 International Performance Measurement & Verification Protocol (IPMVP) Volume I: Concepts and Options for Determining Energy and Water Savings.				
<b>Submittals</b> Provide the LEED Letter Template, signed by the licensed engineer or other responsible party, indicating that metering equipment has been installed for each end-use and declaring the option to be followed under IPMVP version 2001. Provide a copy of the M&V plan following IPMVP, 2001 version, including an executive summary.				
<b>Final Review</b> The applicant submitted a narrative highlighting the different monitor points for the data collected and sample data-sets. However, based on the submittals and the measurement and verification plan previously submitted, it appears that though the applicant has ability to monitor and collect data, the submittal does not follow the submittal requirements or the design approach as described on pages 175-178 of the LEED-NC v2.1 Reference Guide. It is not clear how the measures listed in the plan are verified.				
For example, the documentation provided does not address the issues of accurate cataloging of the baseline conditions, nor are any projected savings indicated to compare the performance against. Please note the issues listed above are not intended to be a comprehensive list but only indicative of the overall issues that do not meet the credit requirements.				
	<input type="checkbox"/>	<input type="checkbox"/>	<b>Green Power</b>	Credit 6-Version 2.1
Preliminary Review: No Comments.				



Achieved	Denied		
<b>5</b>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Possible Points 13</b>
<b>0</b>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Materials &amp; Resources</b></p> <p><b>Storage &amp; Collection of Recyclables</b> <span style="float: right;">Prerequisite 1-Version 2.1</span></p> <p>Preliminary Review: The signed LEED Letter Template indicates that appropriate facilities for recycling have been provided. Floor plans locating the recycling areas demonstrate achievement.</p>
Not	Attempting	<input type="checkbox"/>	<p><b>Building Reuse, Maintain 75% of Existing Shell</b> <span style="float: right;">Credit 1.1-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p><b>Building Reuse, Maintain 100% of Shell</b> <span style="float: right;">Credit 1.2-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p><b>Building Reuse, Maintain 100% Shell and 50% Non-Shell</b> <span style="float: right;">Credit 1.3-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Construction Waste Management, Divert 50%</b> <span style="float: right;">Credit 2.1-Version 2.1</span></p> <p>Preliminary Review: A signed LEED Letter Template declares that 51.01% of project construction waste was diverted from the landfill. A list of materials and where they were diverted to has been included. However, from the list provided, the quantities of materials are unclear. Soil has also been included as being recycled by Nelson Stark. Per the LEED-NC v2.1 Reference Guide page 205, soil cannot be included in construction waste management calculations.</p> <p>TECHNICAL ADVICE: Please submit an updated list including the quantity of each material diverted by each of the three companies listed. Also remove soil from the waste management calculations.</p> <p><b>Final Review</b> The applicant provided a revised list of diverted materials including the quantities of each material. The list also indicated that soil was not included in the calculations. The calculations demonstrate that 51.16% of project construction waste was diverted from the landfill.</p>
Not	Attempting	<input type="checkbox"/>	<p><b>Construction Waste Management, Divert 75%</b> <span style="float: right;">Credit 2.2-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p><b>Resource Reuse, Specify 5%</b> <span style="float: right;">Credit 3.1-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p><b>Resource Reuse, Specify 10%</b> <span style="float: right;">Credit 3.2-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Recycled Content, Specify 25%</b> <span style="float: right;">Credit 4.1-Version 2.0</span></p> <p>Preliminary Review: The signed LEED Letter Template and supporting calculations have been provided declaring that the project has achieved a combined recycled content value of 81% of the total materials. A LEED v2.0 Calculator was also included and this was the calculation methodology that was used to determine the percentage of recycled content. Furnishings and the elevator have been included in the total materials value across all material credits.</p>
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Recycled Content, Specify 50%</b> <span style="float: right;">Credit 4.2-Version 2.0</span></p> <p>Preliminary Review: Please see comments for MRc4.1.</p>

Achieved	Denied			
1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Local/Regional Materials</b>	Credit 5.1-Version 2.0

Preliminary Review: The signed LEED Letter Template and supporting calculations have been provided declaring that 71% of the total project's materials, based on cost, were manufactured within 500 miles of the project site. Calculations were based on the LEED-NC v2.0 Calculator.

There are also a few materials that are generally not manufactured within 500 miles of Cincinnati such as the carpet, linoleum and the vinyl base and treads.

TECHNICAL ADVICE: Please clarify that the materials mentioned above were manufactured within 500 miles of the project. Please refer to page 197 of the LEED v2.0 Reference Guide for a definition of manufacturing.

**Final Review** The applicant provided a narrative response, a map with the 500-mile radius from Cincinnati, and documentation from the manufacturers of linoleum, carpet and vinyl base and tread.

It should be noted that the location noted on the cut sheet for Forbo Marmoleum is the US distribution center, not the manufacturing location. Main production facilities for Forbo Marmoleum are located in the Netherlands, Scotland, Sweden, Switzerland, and France. However, the removal of linoleum from the calculations does not affect credit achievement.

1	<input type="checkbox"/>	<input type="checkbox"/>	<b>Local/Regional Materials</b>	Credit 5.2-Version 2.0
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Preliminary Review: This credit has been selected for audit.

TECHNICAL ADVICE: Please provide a product cut sheet, product literature, or letter from the manufacturer verifying the location of manufacture and extraction, harvesting, or recovery for each material.

**Final Review** The applicant submitted a map with a 500-mile radius from Cincinnati with the extraction locations of the materials listed in the calculator highlighted. Documentation verifying the extraction of each material was also provided. The v2.0 LEED Mrc3-MRc7 Calculator demonstrates that 19% of the total project's materials, based on cost, were manufactured using raw materials harvested within 500 miles of the project site.

Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<b>Rapidly Renewable Materials</b>	Credit 6-Version 2.1
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Preliminary Review: No Comments.

Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<b>Certified Wood</b>	Credit 7-Version 2.1
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Preliminary Review: No Comments.

Achieved	Denied		
6	<input type="checkbox"/>	2	<b>Indoor Environmental Quality</b> <span style="float: right;"><b>Possible Points 15</b></span>
0	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Minimum IAQ Performance</b> <span style="float: right;">Prerequisite 1-Version 2.1</span></p> <p>Preliminary Review: The signed LEED Letter Template has been provided stating that the requirements of ASHRAE 62-1999 have been met. Documentation describing the ventilation rate procedure has been provided.</p>
0	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Environmental Tobacco Smoke (ETS) Control</b> <span style="float: right;">Prerequisite 2-Version 2.1</span></p> <p>Preliminary Review: The signed LEED Letter Template has been provided stating that no smoking is allowed in the building and outdoor smoking areas are located away from operable windows and entryways. The applicant also submitted a copy of the student worker handbook that prohibits smoking inside the building.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Carbon Dioxide (CO2) Monitoring</b> <span style="float: right;">Credit 1-Version 2.1</span></p> <p>Preliminary Review: The signed LEED Letter Template declares that a CO2 monitoring system has been installed. A narrative and calculations are provided indicating that the sensors are placed in each zone and in the outside air intake. The system is set with a differential of 530 ppm above ambient.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Increase Ventilation Effectiveness</b> <span style="float: right;">Credit 2-Version 2.1</span></p> <p>Preliminary Review: No Comments.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Construction IAQ Management Plan, During Construction</b> <span style="float: right;">Credit 3.1-Version 2.1</span></p> <p>Preliminary Review: The signed LEED Letter Template has been provided stating that a construction IAQ plan was followed and implemented. Filters with a MERV 14 rating were installed after construction. The applicant also submitted an IAQ management plan that covers the design approaches of the SMACNA IAQ Guidelines.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Construction IAQ Management Plan, Before Occupancy</b> <span style="float: right;">Credit 3.2-Version 2.1</span></p> <p>Preliminary Review: A signed LEED Letter Template declares that a two week building flush out was conducted with 100% outside air from 5/4/2004 – 5/18/2004. A flush out plan is provided describing the use of MERV 14 filters, adjustments to the HVAC equipment to maintain maximum airflow through the building during flush out, and installation of new MERV 14 filters following flush out.</p>

Achieved	Denied		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>1</b> <b>Low-Emitting Materials, Adhesives &amp; Sealants</b> <span style="float: right;">Credit 4.1-Version 2.1</span>

Preliminary Review: A signed LEED Letter Template declares the use of compliant adhesives and sealants. A list was provided including silicone sealer, VCT adhesive, cove base adhesive, carpet adhesive, flooring and tread adhesive and epoxy caulking. There are other adhesives and sealants typically used in the interior construction of a building. These include, but may not be limited to, duct sealants, subfloor adhesives, plumbing adhesives and sealants, ceramic tile adhesives, and general construction adhesives.

TECHNICAL ADVICE: Please confirm that ALL of the project's adhesives and sealants with their associated VOC levels were included in the submission. If not, please provide a revised list, including VOC content for each product. Also provide an MSDS or cut sheet for each adhesive and sealant used in the building highlighting the VOC content.

**Requirements** The VOC content of adhesives and sealants used must be less than the current VOC content limits of South Coast Air Quality Management District (SCAQMD) Rule #1168, AND all sealants used as fillers must meet or exceed the requirements of the Bay Area Air Quality Management District Regulation 8, Rule 51.

**Submittals** Provide the LEED Letter Template, signed by the architect or responsible party, listing the adhesives and sealants used in the building and declaring that they meet the noted requirements.

**Final Review** This credit has been withdrawn.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Low-Emitting Materials, Paints</b> <span style="float: right;">Credit 4.2-Version 2.1</span>
Preliminary Review: No Comments.				

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>1</b> <b>Low-Emitting Materials, Carpet</b> <span style="float: right;">Credit 4.3-Version 2.1</span>
Preliminary Review: A signed LEED Letter Template declares the use of compliant adhesives and sealants. A list was provided including silicone sealer, VCT adhesive, cove base adhesive, carpet adhesive, flooring and tread adhesive and epoxy caulking. There are other adhesives and sealants typically used in the interior construction of a building. These include, but may not be limited to, duct sealants, subfloor adhesives, plumbing adhesives and sealants, ceramic tile adhesives, and general construction adhesives.				

TECHNICAL ADVICE: Please confirm that ALL of the project's adhesives and sealants with their associated VOC levels were included in the submission. If not, please provide a revised list, including VOC content for each product. Also provide an MSDS or cut sheet for each adhesive and sealant used in the building highlighting the VOC content.

**Final Review** Additional documentation was provided demonstrating that all carpet products meet the CRI Green Label Program requirements.

Achieved	Not Attempting	Denied		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Low-Emitting Materials, Composite Wood</b>	Credit 4.4-Version 2.1
<p>Preliminary Review: A signed LEED Letter Template has been provided declaring that all composite wood and agrifiber products used in the project do not contain added urea-formaldehyde. A list of one product has been included. Please confirm that there was only one composite wood or agrifiber product used on the project.</p> <p>TECHNICAL ADVICE: Please provide cut sheets clearly indicating the bonding agents for each composite wood and agrifiber product used in the project and demonstrating that no added urea formaldehyde resins are used in these products. Per CIR ruling dated 6/17/2004, all products inside the exterior moisture protection is considered a controlled product and must comply with the credit requirement. If a product is a composite wood or agrifiber product, it is a controlled product (e.g. plywood, particleboard, OSB, MDF, strawboard, wheatboard, and similar products). Composite wood components used in assemblies are also controlled (e.g. door cores, panel substrates, plywood sections of I-beams, etc.).</p> <p><b>Requirements</b> Composite wood and agrifiber products must contain no added urea-formaldehyde resins.</p> <p><b>Submittals</b> Provide the LEED Letter Template, signed by the architect or responsible party, listing all the composite wood products used in the building and stating that they contain no added urea-formaldehyde resins.</p> <p><b>Final Review</b> This credit has been withdrawn.</p>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Indoor Chemical and Pollutant Source Control</b>	Credit 5-Version 2.1
<p>Preliminary Review: No Comments.</p>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Controllability of Systems, Perimeter</b>	Credit 6.1-Version 2.1
<p>Preliminary Review: No Comments.</p>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Controllability of Systems, Non-perimeter</b>	Credit 6.2-Version 2.1
<p>Preliminary Review: No Comments.</p>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Thermal Comfort, Compliance with ASHRAE 55-1992</b>	Credit 7.1-Version 2.1
<p>Preliminary Review: No Comments.</p>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Thermal Comfort, Permanent Monitoring System</b>	Credit 7.2-Version 2.1
<p>Preliminary Review: No Comments.</p>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Daylight and Views, Daylight 75% of Spaces</b>	Credit 8.1-Version 2.1
<p>Preliminary Review: The signed LEED Letter Template, drawings, and calculations demonstrate that 83.08% of critical visual task areas have a daylight factor of at least 2%.</p>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Daylight and Views, Views for 90% of Spaces</b>	Credit 8.2-Version 2.1
<p>Preliminary Review: The signed LEED Letter Template, drawings, and calculations demonstrate that 96.47% of critical visual task areas have direct access to views of the outdoors</p>				

Achieved	Denied		Possible Points
3	2	Innovation & Design Process	5

1		Exemplary Performance of MRc4 Recycled Content	Credit 1.1-Version 2.1
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Preliminary Review: The applicant submitted an innovation credit "Positive Impacts of Building Geometry" with the requirement to provide ample daylight in regularly-occupied rooms and instant shading of the adjacent landscaped open space to encourage high use on hot summer days. Photos and a shading study, site plans, and floor plans were submitted to support the innovation credit.

While the project has shown the positive affects of the geometry of the building, the attributes cited in this innovation credit are already awarded in existing LEED credits, SSc7.1 and EQc8.1.

**Final Review** Formerly Positive Impacts of Building Geometry

The applicant submitted an innovation credit for Exemplary Performance of MRc4 Recycled Content based on LEED v2.0. The LEED v2.0 MRc3-MRc7 Calculator was submitted demonstrating that 81% of materials by cost contain recycled content. This exceeds the established threshold of 75% under v2.0 in order to earn an innovation credit.

Achieved	Denied
<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Building Efficiency Optimization**

Credit 1.2-Version 2.1

**Preliminary Review:** The applicant submitted an innovation credit for Alternative Transportation Incentives. A narrative provided indicates that the University has gone beyond minimum requirements in LEED by coordinating with campus planners, campus officials, local Metro officials and regional transportation planners to develop a comprehensive transit plan. Site plans highlighting shuttle routes, bus routes and stops and bike parking have been provided.

Innovation credits are awarded to projects that either demonstrate exemplary performance above and beyond established LEED credit requirements, or demonstrate environmental performance in green building categories not addressed by LEED. While it is commendable that the project has coordinated campus shuttle services with public transit services, these measures contribute toward and are required for credit achievement of SSc4.1. Furthermore, providing bike parking throughout the campus is a typical practice for most universities and contributes towards SSc4.2. It appears the campus has developed a well thought-out campus master plan, but overall does not demonstrate exemplary performance above and beyond LEED credit requirements or demonstrate environmental performance not addressed by LEED.

**Requirements** Same as Credit 1.1.

**Submittals** Provide the proposal(s) within the LEED Letter Template (including intent, requirement, submittals and possible strategies) and relevant evidence of performance achieved.

**Final Review** Formerly Alternative Transportation Incentives

The applicant submitted a new innovation credit for Chilled Water, Steam Heating and Electrical Utility Use for Building Efficiency Optimization. The applicant provided a narrative stating the intent, requirements, submittals and design approach. The narrative includes important features of the systems setup, costs of the measures, as well as anticipated savings. The narrative references the LEED-NC Application Guide (AG) for Multiple Buildings, as well as ASHRAE/ IESNA 90.1-2004, as the basis of the anticipated savings. However, the reference standard for all energy savings under LEED-NC is ASHRAE/ IESNA 90.1-1999 Energy Cost Budget Method.

In addition, the latest version of LEED-NC AG for Multiple Buildings does not include a Cogeneration Energy Cost credit. Appendix G from ASHRAE/IESNA 90.1-2004, though similar to ASHRAE/ IESNA 90.1-1999 Energy Cost Budget Method, is not identical and the two are not interchangeable. The credit sought by the applicant is under the purview of the ASHRAE/ IESNA 90.1-1999 Energy Cost Budget Method and applicable savings should be accounted for under Energy and Atmosphere Credit 1.

It is also important to note that the energy rates mentioned in this submittal differ significantly from the energy rates used for the Energy and Atmosphere credit 1 calculations. Chilled water, steam and any power used from the central plant should be factored in the energy model as purchased energy. The performance of the project based on the Energy Cost Budget method addresses these factors and therefore does not merit an innovation credit on its own accord.

Achieved	Denied
<input type="checkbox"/>	<input checked="" type="checkbox"/>

**New Urbanism Planning and Design Concepts**

Credit 1.3-Version 2.1

Preliminary Review: The applicant submitted an innovation credit based on New Urbanism Planning and Design Concepts in order to create a higher density of continually used functions. The applicant provided copies of articles that appeared in magazines lauding the effort as well as prints of the university web-pages that high-light these elements.

Innovation credits are typically awarded for strategies that are not recognized under the current LEED-NC Rating System. Only those strategies that have significant measurable environmental and occupant benefit are applicable.

While these design concepts appear to successfully provide students with useable transitional spaces, it is unclear what the significant environmental benefit is.

TECHNICAL ADVICE: Please provide documentation supporting that there are quantifiable environmental benefits that are a direct result of the planning and design concepts cited in this innovation credit.

**Requirements** Same as Credit 1.1.

**Submittals** Provide the proposal(s) within the LEED Letter Template (including intent, requirement, submittals and possible strategies) and relevant evidence of performance achieved.

**Final Review** The applicant submitted a narrative that lists the new urbanism principles as well as a study that identifies the inadequacies of the campus services and the change in the usage patterns of these as a result of the project. However, there was no information provided demonstrating quantifiable environmental benefits as requested in the preliminary review comments. Innovation credits are awarded either for exceeding existing LEED credits or for strategies that are not recognized under the current LEED-NC Rating System that have significant measurable environmental and/or occupant benefit.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Green Building Education**

Credit 1.4-Version 2.1

Preliminary Review: The applicant submitted an innovation credit for Achieving Environmental Goals in a Public, Competitive Bid System with the intent of securing contractor compliance with LEED protocols and requirements in a public competitive bid environment. Submittals include the Waste Management Plan, A Contractors' Consolidated Instruction for LEED Submittals, specifications, LEED submittal form, and a LEED compliance checklist.

While the process undertaken by the SLC team is commendable, it is not uncommon for projects to have to complete LEED requirements while working in a competitive bid system. Many project teams have members who have not worked on a LEED project before and educating these parties on LEED is part of the process. Therefore, the merit in the actions of the SLC team will be reflected in the achievement of LEED credits. An innovation credit cannot be awarded in this case.

**Final Review** Formerly LEED and a Public, Competitive Bid System

The applicant submitted an innovation credit for Green Building Education. Design drawings for a building display and a narrative describing regular tours of the campus and building that highlight green building features were provided. The combination of the tours and the display meet the requirements for an innovation credit for Green Building Education based on the components outlined in CIR ruling dated 9/24/2001.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**LEED™ Accredited Professional**

Credit 2-Version 2.1

Preliminary Review: The applicant submitted a copy of the LEED accredited professional certificate for Bart Grunenwald from Heapy Engineering, LLC.