



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 West Campus Residential Initiative, Phase One 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. Currently the project has scored the adjacent points in this category.

26

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

3

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		
6	<input type="checkbox"/>	1	Sustainable Sites Possible Points 14
0	<input type="checkbox"/>	<input type="checkbox"/>	Erosion & Sedimentation Control Prerequisite 1-Version 2.1 Preliminary Review: A signed LEED Letter Template declares compliance with the requirements of this credit and provides a list of erosion and sedimentation control measured implemented.
1	<input type="checkbox"/>	<input type="checkbox"/>	Site Selection Credit 1-Version 2.1 Preliminary Review: The signed LEED Letter Template declares that the site does not meet any of the prohibited criteria.
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Urban Redevelopment Credit 2-Version 2.1 Preliminary Review: No Comments.
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Brownfield Redevelopment Credit 3-Version 2.1 Preliminary Review: No Comments.
1	<input type="checkbox"/>	<input type="checkbox"/>	Alternative Transportation, Public Transportation Access Credit 4.1-Version 2.1 Preliminary Review: The signed LEED Letter Template states that there are two bus stops within 1/4 mile of the project site which each service two bus lines. A scaled site map has been provided.
1	<input type="checkbox"/>	<input type="checkbox"/>	Alternative Transportation, Bicycle Storage & Changing Rooms Credit 4.2-Version 2.1 Preliminary Review: The signed LEED Letter Template shows that covered bicycle storage was provided for 16.42% of building occupants.
1	<input type="checkbox"/>	<input type="checkbox"/>	Alternative Transportation, Alternative Fuel Refueling Stations Credit 4.3-Version 2.1 Preliminary Review: The project attempts to achieve this credit through the use of GEM vehicles. Documentation includes a signed LEED Letter Template, specifications for the GEM vehicle, and a map showing GEM refueling stations. Additional documentation is required to satisfy the requirements of this credit.
			Technical Advice Please provided the following additional documentation per the requirements specified in SSc4.3 CIR Ruling dated 9/8/2004: <ol style="list-style-type: none"> 1. Proof of ownership of the LEVEL 1 EVs 2. A narrative showing that LEVEL 1 EVs are appropriate for this particular building use or function 3. Proof that the EVs are capable of displacing conventional automobile use by 3% of peak shift, full-time equivalent workers (or equivalent usage).
			Final Review Supplemental documentation includes a narrative, photos of GEM cars owned by Cornell, and a letter from Cornell stating their ownership of 12 GEM cars. The narrative addresses proof of ownership, appropriateness for use, and the displacement of conventional automobiles. The narrative describes how GEM cars are modified for various university departmental uses.
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Alternative Transportation, Parking Capacity Credit 4.4-Version 2.1 Preliminary Review: No Comments.

Achieved	Denied		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Reduced Site Disturbance, Protect or Restore Open Space Credit 5.1-Version 2.1</p> <p>Preliminary Review: A signed LEED Letter Template declares that 50% of the project site area has been restored and a site plan and calculations indicate that of the 58,311 SF site, 29,442 SF has been restored with native or adapted vegetation. It is unclear whether lawn and sod areas are included in the calculations.</p> <p>Requirements On greenfield sites, limit site disturbance including earthwork and clearing of vegetation to 40 feet beyond the building perimeter, 5 feet beyond primary roadway curbs, walkways and main utility branch trenches, and 25 feet beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities and playing fields) that require additional staging areas in order to limit compaction in the constructed area; OR, on previously developed sites, restore a minimum of 50% of the site area (excluding the building footprint) by replacing impervious surfaces with native or adapted vegetation.</p> <p>Submittals For greenfield sites: provide the LEED Letter Template, signed by the civil engineer or responsible party, demonstrating and declaring that site disturbance (including earthwork and clearing of vegetation) has been limited to 40 feet beyond the building perimeter, 5 feet beyond primary roadway curbs, walk ways and main utility branch trenches, and 25 feet beyond constructed areas with permeable surfaces. Provide site drawings and specifications highlighting limits of construction disturbance. <input type="checkbox"/><input type="checkbox"/> OR For previously developed sites: provide a LEED Letter Template, signed by the civil engineer or responsible party, declaring and describing restoration of degraded habitat areas. Include highlighted site drawings with area calculations demonstrating that 50% of the site area that does not fall within the building footprint has been restored.</p> <p>Technical Advice Please provide a narrative that clarifies which landscaped areas are included in the calculations.</p> <p>Final Review An additional narrative and a revised drawing have been submitted describing the landscape plan and clarifying the calculations. However, the narrative's claim that "Vinca minor" is a non-invasive plant is contradicted by authoritative sources including the U.S. National Park Service ("[Vinca Minor] has escaped cultivation and is invading natural areas... [It] poses a threat to native plants and communities..." quoted from http://www.nps.gov/plants/alien/pubs/midatlantic/vimi.htm) and Invasive.org ("Common periwinkle [Vinca minor L.], a common invader throughout most of the United States,..." quoted from http://www.invasive.org/browse/subject.cfm?sub=3081). Therefore, it does not seem to meet the definition of "Native/Adapted Plants" in the LEED Reference Guide. Since there appears to be a significant amount of Vinca minor shown on the planting plan, the amount of site restoration will be less than 50% when it is excluded from the calculations.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Reduced Site Disturbance, Development Footprint Credit 5.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Stormwater Management, Rate and Quantity Credit 6.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Stormwater Management, Treatment Credit 6.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Landscape & Exterior Design to Reduce Heat Islands, Non-Roof Surfaces Credit 7.1-Version 2.1</p> <p>Preliminary Review: The signed LEED Letter Template declares that a minimum of 30% of non-roof impervious surface areas was constructed with light-colored/high albedo materials (reflectance of at least 0.3). A site plan and calculations have been provided, noting that 65.88% of the non-roof impervious surface areas have shading and/or are constructed with high albedo materials.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Landscape & Exterior Design to Reduce Heat Islands, Roof Surfaces Credit 7.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>

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

Light Pollution Reduction

Credit 8-Version 2.1

Preliminary Review: The signed LEED Letter Template declares that the project's exterior lighting has been designed according to the IESNA RP-33 requirements of the credit. No exterior illuminance calculation has been provided as required by the LEED Letter Template.

Technical Advice

As requested in the most current LEED Letter Template (dated August 1, 2003), please provide a photometric site plan showing that the overall site illuminance meets the average illuminance levels and uniformity ratios recommended by the IESNA RP-33. This should show average illuminance and maximum/minimum illuminance.

Final Review

Supplemental documentation includes a narrative, a site plan illuminance calculation, and cutsheets for two exterior fixtures. The site plan contains no site boundary, however it is a university campus and lighting is concentrated on walkways. The illuminance values on the site plan seem reasonable for a campus situation. The fixture cutsheets indicate that they are full cut-off fixtures. A photometric report from the manufacturer of the Largest fixture is also provided indicating that it is a full cut-off fixture.

Achieved	Denied		Possible Points
2	<input type="checkbox"/>	<input type="checkbox"/>	Water Efficiency Possible Points 5
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Water Efficient Landscaping, Reduce by 50% Credit 1.1-Version 2.1</p> <p>Preliminary Review: The signed LEED Letter Template states that the project's landscape design uses native and drought-tolerant plantings which do not require a permanent irrigation system. A narrative describing the plant species and the watering protocol for their establishment period has been provided.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Water Efficient Landscaping, No Potable Use or No Irrigation Credit 1.2-Version 2.1</p> <p>Preliminary Review: See WEC1.1.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Innovative Wastewater Technologies Credit 2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Water Use Reduction, 20% Reduction Credit 3.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Water Use Reduction, 30% Reduction Credit 3.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>

Achieved	Denied		Possible Points
2	<input type="checkbox"/>	<input type="checkbox"/>	17
Energy & Atmosphere			
0	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Fundamental Building Systems Commissioning	Prerequisite 1-Version 2.1
Preliminary Review: A signed LEED Letter Template claims that Fundamental Building Systems Commissioning will be completed.			
0	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Minimum Energy Performance	Prerequisite 2-Version 2.1
Preliminary Review: THIS PREREQUISITE HAS BEEN SELECTED FOR AUDIT. A signed LEED Letter Template declares that the building complies with ASHRAE 90.1-1999.			
		Technical Advice	
Please provide a summary table of design features that minimally comply with applicable mandatory and prescriptive requirements in ASHRAE/IESNA 90.1-1999, Section 5-10 -OR- provide a copy of the Energy Cost Budget Compliance Report.			
		Final Review	
An Energy Cost Budget Compliance Report has been provided demonstrating compliance with the ECBM of ASHRAE 90.1-1999.			
0	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		CFC Reduction in HVAC&R Equipment	Prerequisite 3-Version 2.1
Preliminary Review: The signed LEED Letter Template declares that the project's HVAC&R systems do not contain CFC-based refrigerant			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Optimize Energy Performance, 20% New /10% Existing	Credit 1.1-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Optimize Energy Performance, 30% New /20% Existing	Credit 1.2-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Optimize Energy Performance, 40% New /30% Existing	Credit 1.3-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Optimize Energy Performance, 50% New /40% Existing	Credit 1.4-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Optimize Energy Performance, 60% New /50% Existing	Credit 1.5-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Renewable Energy, 5% Contribution	Credit 2.1-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Renewable Energy, 10% Contribution	Credit 2.2-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	2.1
		Renewable Energy, 20% Contribution	Credit 2.3-Version 2.1
Preliminary Review: No Comments.			

Achieved	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Additional Commissioning Credit 3-Version 2.1
<p>Preliminary Review: THIS CREDIT HAS BEEN SELECTED FOR AUDIT. The signed LEED Letter Template declares that the required commissioning activities have been completed or are under contract.</p>			
<p>Technical Advice Please provide a description of the relationship of the Commissioning Agent to the design team, demonstrating that the commissioning agent is in fact an independent third party. Provide documentation indicating that DD and CD reviews (with substantive comments) occurred. Provide an executive summary or excerpts from the re-commissioning manual and evidence of resolution of outstanding commissioning issues. If under contract, please provide an excerpt from the contract demonstrating credit achievement.</p>			
<p>Final Review Cornell University provided a description of the commissioning process and relationship of the team members. In their description it is confirmed that Energy Management, a group of the University's Utilities Department named "Utilities", will act as the commissioning agent and they will provide many of the key roles for commissioning. As for the hands-on commissioning, PDC Control Shops organization, which is made up of the University's in-house staff, will provide the actual field commissioning and Arup was recruited to prepare the specific commissioning test sequences. Utilities also hired Facilities Dynamic to help in providing additional commissioning work including re-commissioning. Cornell University also submitted an excerpt from their DD & CD review along with a narrative describing how both Utilities staff and PDC staff provided comments on both the DD & CD reviews. As part of the submitted documentation, an excerpt from the executive summary of the re-commissioning manual was provided. Also included was an excerpt from Facilities Dynamic's contract with Utilities verifying credit achievement and that resolution of commissioning issues will be provided.</p>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ozone Protection Credit 4-Version 2.1
<p>Preliminary Review: The signed LEED Letter Template declares that the project's HVAC&R systems do not contain HCFCs or Halons.</p>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measurement & Verification Credit 5-Version 2.1
<p>Preliminary Review: No Comments.</p>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Green Power Credit 6-Version 2.1
<p>Preliminary Review: No Comments.</p>			

Achieved	Denied		Possible Points
5	<input type="checkbox"/>	<input type="checkbox"/>	13
Materials & Resources			
0	<input type="checkbox"/>	<input type="checkbox"/>	Prerequisite 1-Version 2.1
Storage & Collection of Recyclables			
Preliminary Review: The signed LEED Letter Template indicates that appropriate facilities for recycling have been provided. A narrative and a floor plan locating the recycling areas demonstrate achievement.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.1-Version 2.1
Building Reuse, Maintain 75% of Existing Shell			
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.2-Version 2.1
Building Reuse, Maintain 100% of Shell			
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.3-Version 2.1
Building Reuse, Maintain 100% Shell and 50% Non-Shell			
Preliminary Review: No Comments.			
1	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2.1-Version 2.1
Construction Waste Management, Divert 50%			
Preliminary Review: A signed LEED Letter Template declares that 54.77% of project construction waste was diverted from the landfill. Many of the listed items are described as "diverted waste" but it is unclear what type of materials have been diverted and how and to where the waste was diverted. Further, the line item "C&D Recycled" needs clarification.			
Technical Advice Please provide clarification about what materials were diverted, as well as how and to where the waste was diverted. Additionally, provide documentation such as invoices and/or trip tickets to support the declaration.			
Final Review Supplemental documentation includes a narrative and a number of receipts, trip tickets and other documentation. The narrative describes the company, the type of waste, and where it was diverted. To support the statements in the narrative, six declarative letters are provided by contractors and two sets of invoices are provided.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2.2-Version 2.1
Construction Waste Management, Divert 75%			
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.1-Version 2.1
Resource Reuse, Specify 5%			
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.2-Version 2.1
Resource Reuse, Specify 10%			
Preliminary Review: No Comments.			

Achieved	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Recycled Content, Specify 5%	Credit 4.1-Version 2.1
Preliminary Review: THIS CREDIT HAS BEEN SELECTED FOR AUDIT. The signed LEED Letter Template and supporting calculations have been provided declaring that the project has achieved a combined recycled content value of 7.88% of the total materials by cost.			
Technical Advice To support the calculations in the LEED Letter Template, please provide a product cut sheet, product literature, or letter from the manufacturer that clearly indicates the cost/value of the product/material and whether each product contains post-consumer or post-industrial recycled material or both, and what percentages of each by weight.			
Final Review A narrative, a modified LEED Letter Template indicating a combined recycled content of 8.35%, and cutsheets for most products are provided.			
There were some inconsistencies and issues with the documentation as follows:			
1. No documentation was provided for the Moen product. (This item was removed from the calculation.)			
2. Aluminum Trim Extrusions and Zurn documentation did not distinguish between post-consumer and post-industrial recycled content. (The calculation was modified to assume that these two products contain post-industrial recycled content.)			
3. Documentation for Concrete Reinforcement, Steel Shapes, Bar Joist, and Metal Decking consisted of a general steel letter from Nucor that did provide adequate connection between the project and the products. (The calculation was modified to assume the LEED default value of 25% post-consumer recycled content for all steel products.)			
4. Documentation for the Loading Dock Bumper was a cutsheet with a handwritten note describing the recycled content. (This product was removed from the calculation.)			
5. Lead Copper and Mueller were calculated incorrectly. (These were entered into the calculation with the proper procedure).			
Based on the issues outlined above, the calculation was recomputed with a resulting combined recycled content of 5.77%, meeting the credit threshold.			
<input type="checkbox"/>	<input type="checkbox"/>	Recycled Content, Specify 10%	Credit 4.2-Version 2.1
Preliminary Review: No Comments.			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Local/Regional Materials, 20% Manufactured Regionally	Credit 5.1-Version 2.1
Preliminary Review: The signed LEED Letter Template and supporting calculations have been provided declaring that 31.58% of the total project's materials by cost were manufactured within 500 miles of the project site.			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Local/Regional Materials, 50% Extracted Regionally	Credit 5.2-Version 2.1
Preliminary Review: The signed LEED Letter Template and calculations have been provided claiming that of the locally manufactured materials, 69.63% by cost were also locally harvested or extracted.			
<input type="checkbox"/>	<input type="checkbox"/>	Rapidly Renewable Materials	Credit 6-Version 2.1
Preliminary Review: No Comments.			

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

Certified Wood

Credit 7-Version 2.1

Preliminary Review: THIS CREDIT HAS BEEN SELECTED FOR AUDIT. The signed LEED Letter Template declares that 80.26% of wood based materials are certified in accordance with FSC Principles and Criteria. Wood products constitute 2.97% of the total value of all materials for the project.

Please note that the total materials cost in MRc7 is different than the total materials cost indicated in MRc2, MRc4, and MRc5. The total materials cost should stay consistent among all MR credits. However, the percentage achievement for this credit is based on the cost of new wood materials, not the total materials cost, so achievement is not affected.

Technical Advice To support the calculations in the LEED Letter Template, please provide copies of vendor invoices for each certified wood product, indicating the cost/value of that product and demonstrating that the requirements of the credit are met. Also, please provide FSC chain-of-custody certificates for each applicable product with chain of custody number indicated.

Final Review Supplemental documentation includes documentation from installers, product suppliers, and product producers. This includes a SmartWood certificate for Adirondack Hardwoods, product documentation from Lewis Lumber showing the SmartWood and FSC seal, and product documentation from Allegheny Mountain Hardwood indicating compliance with SmartWood. No invoices are provided showing the cost/value of the products as requested in the Technical Advice, and only one of three FSC chain-of-custody certificates was provided (although other documentation indicates compliance with FSC). Even without the invoices, the documentation provided seems to show the achievement of this credit.

Achieved	Denied		Possible Points 15
7	1	Indoor Environmental Quality	
0		Minimum IAQ Performance Prerequisite 1-Version 2.1 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.	
0		Environmental Tobacco Smoke (ETS) Control Prerequisite 2-Version 2.1 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.	
	1	Carbon Dioxide (CO2) Monitoring Credit 1-Version 2.1 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. Since the project contains mixed uses, a variety of approaches are described for credit compliance. An outdoor sensor is implied in the control sequence but has not been included on the list of sensors. The documentation indicates that all sensors are located in the return ducts. Per the EQc1 CIR Ruling dated 3/23/04, the CO2 sensors in spaces with variable occupancies must be located within the space. Requirements Install a permanent carbon dioxide (CO2) monitoring system that provides feedback on space ventilation performance in a form that affords operational adjustments. Refer to the CO2 differential for all types of occupancy in accordance with ASHRAE 62-2001, Appendix C. Submittals Provide the LEED Letter Template, signed by the mechanical engineer or responsible party, declaring and summarizing the installation, operational design and controls/zones for the carbon dioxide monitoring system. For mixed-use buildings, calculate CO2 levels for each separate activity level and use.	
Not Attempting		Increase Ventilation Effectiveness Credit 2-Version 2.1 Preliminary Review: No Comments.	
1		Construction IAQ Management Plan, During Construction Credit 3.1-Version 2.1 Preliminary Review: A signed LEED Letter Template certifies that five Design Approaches of SMACNA IAQ Guidelines were used during construction. Additionally, a brief description was provided of important design approaches employed.	
1		Construction IAQ Management Plan, Before Occupancy Credit 3.2-Version 2.1 Preliminary Review: A signed LEED Letter Template declares that a two week building flush out was conducted with 100% outside air from 6/23/2004 - 7/26/2004. A narrative describing building flush out procedures has not been provided as required by the LEED Letter Template. Technical Advice Please provide a description of the building flush out procedures. The flush out plan should describe the use of MERV 13 filters, adjustments to the HVAC equipment to maintain maximum airflow through the building during flush out, and installation of new MERV 13 filters following flush out. Also provide cut sheets of the MERV 13 filters. Final Review Supplemental documentation includes a narrative describing the flush-out procedure as well as a cutsheet for a filter with a range of MERV efficiencies. The narrative states the filter used on the project was in fact MERV 13.	

Achieved	Denied		
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Low-Emitting Materials, Adhesives & Sealants Credit 4.1-Version 2.1</p> <p>Preliminary Review: A signed LEED Letter Template declares the use of compliant adhesives and sealants. A list with associated VOC levels has been provided. The provided list of adhesives and sealants does not include some adhesives and sealants commonly used in building construction for fire protection, cove bases, sub-floors, plumbing, ducts, and flooring adhesives other than the listed carpet adhesive.</p> <p>Technical Advice Please provide a complete list of adhesives and sealants with VOC content listed.</p> <p>Final Review Supplemental documentation includes a revised Adhesives/Sealants lists which includes VOC content for products related to fire protection, cove bases, ducts and flooring. The VOC content for the trim adhesive seems high, however we can assume that this credit would be earned if an adhesive budget was provided.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Low-Emitting Materials, Paints Credit 4.2-Version 2.1</p> <p>Preliminary Review: A signed LEED Letter Template declares that all paints, including topcoats and primers, meet the VOC requirements of Green Seal. A list, with VOC content indicated, has been provided.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Low-Emitting Materials, Carpet Credit 4.3-Version 2.1</p> <p>Preliminary Review: A signed LEED Letter Template has been provided declaring that the project uses carpeting that complies with the CRI Green Label Program.</p>
Not	Attempting	<input type="checkbox"/>	<p>Low-Emitting Materials, Composite Wood Credit 4.4-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p>Indoor Chemical and Pollutant Source Control Credit 5-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p>Controllability of Systems, Perimeter Credit 6.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p>Controllability of Systems, Non-perimeter Credit 6.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p>Thermal Comfort, Compliance with ASHRAE 55-1992 Credit 7.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not	Attempting	<input type="checkbox"/>	<p>Thermal Comfort, Permanent Monitoring System Credit 7.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>

Achieved	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Daylight and Views, Daylight 75% of Spaces Credit 8.1-Version 2.1
			<p>Preliminary Review: A signed LEED Letter Template and an area calculation show the project providing a 2% DF in 79% of the project area. Additionally, drawings are provided which show a representative sample of the project floors.</p> <p>Technical Advice As requested in the most recent version of the LEED Letter Template (dated August 1, 2003), please provide floor plans for each floor (unless the floors are identical; if so please indicate as such) demonstrating compliance with this credit. These drawings should highlight and explain any exempted spaces.</p> <p>Final Review Supplemental documentation includes a narrative, revised calculations, and floor plans for the entire project. The revised calculations changed the percentage of spaces with daylighting from 79% to 77%. The drawings highlight which rooms achieved the 2% DF, which rooms did not achieve the 2% DF, and which rooms were exempted. Additionally a list of all exempted spaces is provided including justification for the exemption of these spaces.</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Daylight and Views, Views for 90% of Spaces Credit 8.2-Version 2.1
			<p>Preliminary Review: A signed LEED Letter Template and an area calculation show the project providing a view in 92% of the project area. Additionally, drawings are provided which show a representative sample of the project floors.</p> <p>Technical Advice As requested in the most recent version of the LEED Letter Template (dated August 1, 2003), please provide floor plans for each floor (unless the floors are identical; if so please indicate as such) demonstrating compliance with this credit. These drawings should show the direct line of sight zones for each space.</p> <p>Final Review Supplemental documentation includes a narrative, a revised view calculation, and floor plans for the entire project. These floor plans show site lines for all regularly occupied spaces. The modified calculation changes the percentage of spaces with views from the original value of 93% to 95%.</p>

Achieved	4		Denied	1	Innovation & Design Process	Possible Points 5
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1			Green Building Education	Credit 1.1-Version 2.1
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Preliminary Review: The documentation includes affidavits that describe the green education program. This program includes the following: signs demonstrating LEED points during tours, a Manual for Students and University Departments, a PowerPoint presentation for facilities managers, and a computer graphic presentation for students.

Several CIRs explain that in order to achieve an innovation point for Green Building Education it is necessary to provide two of the following:

- 1) A comprehensive signage program built into the building's spaces to educate the occupants and visitors of the benefits of green buildings.
- 2) The development of a manual, guideline or case study to inform the design of other buildings based on the successes of this project. This manual will be made available to the USGBC for sharing with other projects.
- 3) An educational outreach program or guided tour could be developed to focus on sustainable living, using the project as an example.

For this project the item #3 has been provided via presentations for both students and facilities managers. Item #1 has partially been provided; however the documentation suggests that signage is only temporary and used only during tours. The requirement is for permanent signage. Item #2 has also been partially provided. A manual was produced for students and faculty members. However the requirement states that the manual will be available to the USGBC for sharing with other projects.

Technical Advice Please provide a copy of the manual and graphic presentation materials for evaluation.

Final Review Supplemental documentation includes an extensive manual and a PowerPoint presentation which both discuss the environmental impacts of buildings, Cornell's sustainable practices, the LEED process, and the application of LEED to the Cook House project.

Achieved	Denied
1	

Green Cleaning/Housekeeping

Credit 1.2-Version 2.1

Preliminary Review: The documentation provided includes the following:

1. Three appendices describing green building strategies.
2. A statement of purpose regarding occupant safety and green housekeeping, and additional documentation outlining what green housekeeping means to this project.
3. A list of green housekeeping strategies and technologies.
4. A narrative describing a general training program which includes a discussion of green housekeeping strategies.
5. A list of approved products. The documentation indicates that all cleaning products will meet Green Seal or California Code Regulations, Title 17 Section 94509.

There is no mention of contractual or procedural requirements as required by IDc1.1 CIR dated 4/8/2004. Further, there is no mention of meeting the additional requirements necessary for residential projects.

Technical
Advice

Provide additional documentation showing compliance with the requirements stated in IDc1.1 CIR ruling dated 4/8/2004. The following is an excerpt from this CIR:

"REQUIREMENTS FOR MULTI-UNIT RESIDENTIAL BUILDINGS ... Additional steps are required to influence housekeeping protocols within residences. Select six major cleaning needs and identify products ... that will be supplied to meet these needs ... Provide an estimated 6 month supply of these products to residents, as well as information on how to easily purchase refills and/or replacements. Educate the residents on the green cleaning concepts and products via discussion and written materials upon move-in and periodically thereafter."

Final Review

Supplemental documentation includes a narrative which describes Cornell Housekeeping workers as full time employees of Cornell who are extensively trained in the areas of green housekeeping and who receive cleaning chemicals from one supervisor who is not only knowledgeable in green housekeeping standards but who also helped prepare the Cornell Green Housekeeping Manual. In regards to the multi-residential CIR requirements, the narrative notes that the Cook House is not a traditional multi-resident complex as all "wet areas" are cleaned not by the residents but by Cornell Housekeeping staff. The exception to this is 6 graduate student and faculty housing units which are cleaned by the residents. Free cleaning products and green cleaning workshops will be provided for these residents during the term of their stays.

1		
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Lake Source Cooling

Credit 1.3-Version 2.1

Preliminary Review: An innovation credit is being sought for the installation of Cornell's Lake Source Cooling system. This system takes chilled water from the bottom of a nearby, deep lake and utilizes it, through heat exchange, to cool many of the buildings on campus. This system replaced a more conventional central chilled water plant in 2000. The innovation credit has been proposed as exemplary performance for EAc1 (saving energy), EAc4 (no refrigerants) and WEc3 (process water savings). It appears as if two innovation points are being sought for this combination of exemplary performance. A narrative describes the project and its benefits.

Eligibility for exemplary performance credits are clearly spelled out in the CIRs. The project would not be eligible for innovation relative to issue of refrigerants since this is already covered by EAc4. The project could possibly earn an innovation point relative to energy and water savings. This issue however is complicated by the fact that neither WEc3 nor EAc1 have been pursued by the project. A total energy savings of 170,000 kWh per year is claimed which is equal to a 6.5% reduction in the total building energy cost. An EAc1.1 CIR Ruling dated 2/24/04 specifically addressed this central cooling system. A methodology for considering how to include the energy savings associated with a central plant is currently being developed by the EA TAG. In the absence of an approved methodology, the energy and water savings demonstrated are sufficient to earn an innovation credit.

Achieved		Denied		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lake Source Cooling	Credit 1.4-Version 2.1
			Preliminary Review: See comments for IDc1.3. A maximum of one innovation point is available per strategy.	
			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.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LEED™ Accredited Professional	Credit 2-Version 2.1
			Preliminary Review: A signed LEED Letter Template and a LEED Accredited Professional certificate for David Riz are provided.	