



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 Swarthmore College Science 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** 28 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.
- Denied** 3 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.
- 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			Possible Points 14
8	1	Sustainable Sites		
0	<input type="checkbox"/>	<input type="checkbox"/>	Erosion & Sedimentation Control	Prerequisite 1-Version 2.1
Preliminary Review: The signed LEED letter template states that the local Best Management Practices meet or exceed the EPA BMPs. Measures include seeding, mulching, silt fencing, berms, storm drain protection, and rock construction. Letters from the civil engineer and local county, as well as plans have been included verifying compliance.				
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.				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Urban Redevelopment	Credit 2-Version 2.1
Preliminary Review: No Comments.				
<input type="checkbox"/>	<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 is a commuter rail within 1328 feet of the project site. 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 declares that 33 bicycle stalls and 2 showers are provided within 200 yards of the project for 75 occupants. Plans locating the showers and racks have been included.				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Alternative Transportation, Alternative Fuel Refueling Stations	Credit 4.3-Version 2.1
Preliminary Review: No Comments.				
1	<input type="checkbox"/>	<input type="checkbox"/>	Alternative Transportation, Parking Capacity	Credit 4.4-Version 2.1
Preliminary Review: The signed LEED letter template declares that no new parking has been added for this rehabilitation project and 2 preferred carpool parking spaces are provided for 5.33 % of building occupants. Site drawings and calculations have been provided.				
1	<input type="checkbox"/>	<input type="checkbox"/>	Reduced Site Disturbance, Protect or Restore Open Space	Credit 5.1-Version 2.1
Preliminary Review: A signed LEED letter template declares that 83% of the project site area has been restored. A site plan and calculations demonstrate that of the 356,257 site (not including building footprint), 296,174.5 sf has been restored with native planting or vegetation.				

Achieved	Denied		
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Reduced Site Disturbance, Development Footprint Credit 5.2-Version 2.1</p> <p>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 letter from the building owner as well as calculations substantiate this claim.</p>
1	<input type="checkbox"/>	<input type="checkbox"/>	<p>Stormwater Management, Rate and Quantity Credit 6.1-Version 2.1</p> <p>Preliminary Review: The signed LEED Letter Template and an included letter from the civil engineer declares that the post-development 1.5 year, 24 hour peak discharge rate and quantity do not exceed pre-development conditions. Supporting calculations and a narrative have been provided indicating that this is accomplished through an irrigation vault and an infiltration bed.</p> <p>The team has presented a net drainage area of 2.662 acres which is reduced because of recharge area. Please provide additional information to illustrate how that area has been determined.</p> <p>Additionally, Tc is indicated to be the same for both pre- and post- conditions. Please clarify.</p> <p>Final Review The project team has provided a narrative describing how the net drainage area of 2.662 acres has been determined. The total drainage area of the project site is 5.76 acres. Of that total, only 2.66 acres flows directly to the existing storm system. The remaining 3.10 acres flows through recharge/reuse facilities. Calculations comparing the runoff volume for the 1.5 year storm subtract the volume of the facilities from the total volume, indicating that runoff after development is less than prior to development.</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 type="checkbox"/>	<input type="checkbox"/>	1	<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 and narrative state that 41% of paving, and 69% of pedestrian pathways are porous and high albedo. Total paving is noted as 60,082.5 SF, 28,053.5 SF of which is vehicular and 32,029 SF of which is pedestrian.</p> <p>The calculations indicate that 10,610 SF of the pedestrian concrete is light grey bluestone. It is unclear if in fact the other products listed meet the requirements for reflectance. It should be noted that porous asphalt does not qualify as open grid paving for the purpose of this credit. Refer to CIR Ruling dated 10/18/04 for further guidance on this issue.</p> <p>Please provide cut sheets or other supporting documentation to demonstrate that 30% of total non-roof impervious areas (including the porous concrete) are constructed with high albedo materials.</p> <p>Requirements Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30% of the site's non-roof impervious surfaces, including parking lots, walkways, plazas, etc.; OR place a minimum of 50% of parking spaces underground or covered by structured parking; OR use an open-grid pavement system (less than 50% impervious) for a minimum of 50% of the parking lot area.</p> <p>Submittals Provide the LEED Letter Template, signed by the civil engineer or responsible party, referencing the site plan to demonstrate areas of paving, landscaping (list species) and building footprint, and declaring that: A minimum of 30% of non-roof impervious surfaces areas are constructed with high-albedo materials and/or an open grid pavement and/or will be shaded within five years OR A minimum of 50% of parking spaces have been placed under-ground or are covered by structured parking OR An open-grid pavement system (less than 50% impervious) has been used for a minimum of 50% of the parking lot area.</p> <p>Final Review Credit withdrawn.</p>

Achieved	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landscape & Exterior Design to Reduce Heat Islands, Roof Surfaces	Credit 7.2-Version 2.1
Preliminary Review: The signed LEED letter template has been provided stating that roofing materials for 93.19% of the project's roof surface meet the emissivity and reflectivity requirements of the credit.			
<input type="checkbox"/>	<input type="checkbox"/>	Light Pollution Reduction	Credit 8-Version 2.1
Preliminary Review: No Comments.			

Achieved	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water Efficiency Possible Points 5
<input checked="" type="checkbox"/>	<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 high efficiency irrigation technology and water catchment reduce potable water consumption for irrigation by 50%.</p>
<input checked="" type="checkbox"/>	<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: The signed LEED letter template and a narrative state that the water catchment system is anticipated to supply 100% of water for irrigation. A narrative, calculations and site plans describing the planting, irrigation, and assumptions for rainwater harvesting have been included.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Innovative Wastewater Technologies Credit 2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
<input type="checkbox"/>	<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>
<input type="checkbox"/>	<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		
4	2	Energy & Atmosphere	Possible Points 17
0		Fundamental Building Systems Commissioning	Prerequisite 1-Version 2.1
Preliminary Review: The signed LEED letter template declares that the required commissioning activities have been completed or are under contract.			
0		Minimum Energy Performance	Prerequisite 2-Version 2.1
Preliminary Review: The signed LEED letter template declares that the project complies with ASHRAE 90.1-1999.			
0		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 refrigerants.			

Achieved

Denied

1		1
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Optimize Energy Performance, 20% New /10% Existing

Credit 1.1-Version 2.1

Preliminary Review: The signed LEED letter template, summary tables, and energy modeling output demonstrate a 45% savings between the budget and design cases in comparison with ASHRAE 90.1-1999.

Fans account for \$133,740, or 70% of the energy cost savings. It is unclear how these fan savings were achieved. Exception (b) of Section 6.3.2.1 only applies to spaces where VAV is impractical. It appears that there would be no fan energy savings in these wet lab spaces since you would model a constant volume system in both the proposed and budget models where this exception applies. In addition, the standard does require either VAV or energy recovery in all spaces with outside air supply that is 70% or greater of the design supply air flow (see sections 6.3.6 and 6.3.7.2). Please clarify the comparison of the budget and proposed models for the different space types and explain how the energy savings were achieved. (A table listing the space types with descriptions of the corresponding HVAC modeling assumptions for the proposed and budget buildings would be very helpful. Include fan assumptions, such as static pressure drop, variable speed drives, etc.

The lighting energy cost savings also require explanation. The cost savings divided by the energy savings gives a value of \$0.57/kWh. This appears to be an unreasonably high cost for electricity. The total energy cost savings are \$21,814, while the energy savings are 37,840 kWh.

Please provide additional documentation accordingly.

Requirements Reduce design energy cost compared to the energy cost budget for energy systems regulated by ASHRAE/IESNA Standard 90.1-1999 (without amendments), as demonstrated by a whole building simulation using the Energy Cost Budget Method described in Section 11 of the Standard.

New Bldgs.	Existing Bldgs.	Points
15%	5%	1
20%	10%	2
25%	15%	3
30%	20%	4
35%	25%	5
40%	30%	6
45%	35%	7
50%	40%	8
55%	45%	9
60%	50%	10

Regulated energy systems include HVAC (heating, cooling, fans and pumps), service hot water and interior lighting. Non-regulated systems include plug loads, exterior lighting, garage ventilation and elevators (vertical transportation). Two methods may be used to separate energy consumption for regulated systems. The energy consumption for each fuel may be prorated according to the fraction of energy used by regulated and non-regulated energy.

Alternatively, separate meters (accounting) may be created in the energy simulation program for regulated and non-regulated energy uses. If an analysis has been made comparing the proposed design to local energy standards and a defensible equivalency (at minimum) to ASHRAE/IESNA Standard 90.1-1999 has been established, then the comparison against the local code may be used in lieu of the ASHRAE Standard. Project teams are encouraged to apply for innovation credits if the energy consumption of non-regulated systems is also reduced.

Submittals Complete the LEED Letter Template incorporating a quantitative summary table showing the energy saving strategies incorporated in the building design. Demonstrate via summary printout from energy simulation software that the design energy cost is less than the energy cost budget as defined in ASHRAE/IESNA 90.1-1999, Section 11.

Final Review The project team has provided a narrative and additional documentation addressing the issues outlined in the preliminary review. The revised energy output demonstrates a 21.2% savings. The project team

Achieved

Denied

has included a table referenced in CIR 9/5/01 which allows for a modification to the point schedule for buildings consisting of both new and existing construction. The table indicates that 3 points are awarded for a savings of at least 20.5%.

The majority of the energy cost savings are attributable to heating energy reduction. However, some of these savings appear to have been achieved through misapplication of the ECB method.

There are several issues to note:

- 1) The VAV system in non-lab areas should assume a minimum flow of 0.4 cfm/sf per section 11.3 in the budget case, not 50% minimum flow. The proposed case assumed a minimum setting of 25%. In lab areas with VAV, this minimum setting depends on lab requirements or the 0.4 cfm/sf and is typically the same for each model.
- 2) The night setback for labs should be consistent in both models.
- 3) The heat recovery in the budget building should assume 50% total effectiveness, not just sensible.
- 4) Occupancy sensors were assumed to save 20% of the lighting energy but no reference is given to establish this level of savings. ASHRAE 90.1-2001 allows for 10% savings and this is often cited in LEED energy analyses. Real savings will be achieved through the cascading of air from offices to labs.

Based on these discrepancies, full credit is not available and one point has been awarded.

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Optimize Energy Performance, 30% New /20% Existing	Credit 1.2-Version 2.1
Preliminary Review: See comments for EAc1				
Requirements See Credit 1.1.				
Submittals Same as Credit 1.1.				

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Optimize Energy Performance, 40% New /30% Existing	Credit 1.3-Version 2.1
Preliminary Review: See comments for EAc1				

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Optimize Energy Performance, 50% New /40% Existing	Credit 1.4-Version 2.1
Preliminary Review: See comments for EAc1				

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Optimize Energy Performance, 60% New /50% Existing	Credit 1.5-Version 2.1
Preliminary Review: No Comments.				

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Renewable Energy, 5% Contribution	Credit 2.1-Version 2.1
Preliminary Review: No Comments.				

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Renewable Energy, 10% Contribution	Credit 2.2-Version 2.1
Preliminary Review: No Comments.				

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Renewable Energy, 20% Contribution	Credit 2.3-Version 2.1
Preliminary Review: No Comments.				

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Additional Commissioning	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.				

Achieved	Not Attempting	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ozone Protection	Credit 4-Version 2.1
Preliminary Review: The signed LEED letter template declares that the project's HVAC&R systems do not contain HCFCs or Halons. This credit has been selected for audit. Please provide additional information on the refrigerant products employed in the building.				
Final Review The project team has provided product data for a gas engine driven chiller and a centrifugal chiller showing that these products contain no HCFC refrigerants.				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measurement & Verification	Credit 5-Version 2.1
Preliminary Review: No Comments.				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Green Power	Credit 6-Version 2.1
Preliminary Review: No Comments.				
Final Review Project team has provided a new submittal including a signed Letter Template and copy of two contracts indicating the combined purchase of appropriate green power for over 100% of the building's total energy consumption.				

Achieved	Denied		Possible Points
3	<input type="checkbox"/>	<input type="checkbox"/>	13
Materials & Resources			
0	<input type="checkbox"/>	<input type="checkbox"/>	13
		Storage & Collection of Recyclables	Prerequisite 1-Version 2.1
Preliminary Review: The signed LEED letter template indicates that appropriate facilities for recycling have been provided. Recycling area calculations and floor plans locating the recycling areas indicate achievement.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Building Reuse, Maintain 75% of Existing Shell	Credit 1.1-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Building Reuse, Maintain 100% of Shell	Credit 1.2-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Building Reuse, Maintain 100% Shell and 50% Non-Shell	Credit 1.3-Version 2.1
Preliminary Review: No Comments.			
1	<input type="checkbox"/>	<input type="checkbox"/>	13
		Construction Waste Management, Divert 50%	Credit 2.1-Version 2.1
Preliminary Review: A signed LEED letter template declares that 66.71% of project construction waste was diverted from the landfill. A list of materials and where they were diverted has been included.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Construction Waste Management, Divert 75%	Credit 2.2-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Resource Reuse, Specify 5%	Credit 3.1-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Resource Reuse, Specify 10%	Credit 3.2-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Recycled Content, Specify 5%	Credit 4.1-Version 2.1
Preliminary Review: No Comments.			
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	13
		Recycled Content, Specify 10%	Credit 4.2-Version 2.1
Preliminary Review: No Comments.			

Achieved	Denied
1	

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 24.25% of the total project's materials were manufactured within 500 miles of the project site. The total construction cost is noted as \$45,000,000.

Top soil, which accounts for \$100,000 is not considered a construction material and should not be included in calculations for this credit. Furthermore, mechanical systems, including air handling units and ductwork cannot be included in calculations for this credit. Please revise calculations accordingly.

Final Review The project team has provided a narrative declaring that soil and mechanical equipment have been removed from the calculations. Revised calculations show that 20.41% of the total project's materials were manufactured within 500 miles of the project site. The total construction cost is noted as \$39,190,000.

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Local/Regional Materials, 50% Extracted Regionally Credit 5.2-Version 2.1

Preliminary Review: The signed LEED letter template and supporting calculations have been provided declaring that 13.78% of the total project's materials were manufactured using raw materials harvested within 500 miles of the project site. The total construction cost is noted as \$45,000,000.

Top soil, which accounts for \$100,000 is not considered a construction material and should not be included in calculations for this credit.

Please provide a product cut sheet, product literature or letter from manufacturers of each product listed to verify the location of materials manufacture and extraction, harvesting, or recovery.

Final Review The project team has provided revised calculations excluding soil indicating that 15.25% of the total project's materials were extracted within 500 miles of the project site. The total construction cost is noted as \$39,190,000. Product cut sheets or a letter from the respective manufacturer has been included for each product listed.

Not	Attempting	
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Rapidly Renewable Materials Credit 6-Version 2.1

Preliminary Review: No Comments.

Not	Attempting	
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Certified Wood Credit 7-Version 2.1

Preliminary Review: No Comments.

Achieved	Denied		
6	<input type="checkbox"/>	<input type="checkbox"/>	Indoor Environmental Quality Possible Points 15
0	<input type="checkbox"/>	<input type="checkbox"/>	<p>Minimum IAQ Performance Prerequisite 1-Version 2.1</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>Environmental Tobacco Smoke (ETS) Control Prerequisite 2-Version 2.1</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.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Carbon Dioxide (CO2) Monitoring Credit 1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Increase Ventilation Effectiveness Credit 2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Construction IAQ Management Plan, During Construction Credit 3.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Construction IAQ Management Plan, Before Occupancy Credit 3.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>
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. Manufacturer information for each product has been included.</p>
Not Attempting	<input type="checkbox"/>	<input type="checkbox"/>	<p>Low-Emitting Materials, Paints Credit 4.2-Version 2.1</p> <p>Preliminary Review: No Comments.</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>

Achieved	Not Attempting	Denied		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Low-Emitting Materials, Composite Wood Credit 4.4-Version 2.1</p> <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 three composite wood products has also been included.</p> <p>Please verify that this represents a comprehensive list of all composite wood products in the building. Note that plywood is among those products that must be included for credit compliance.</p> <p>Final Review The project team has provided a list of additional composite wood products used in the building. Cut sheets, product literature or a letter from manufacturer has been included for each product listed.</p>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Indoor Chemical and Pollutant Source Control Credit 5-Version 2.1</p> <p>Preliminary Review: The signed LEED letter template declares that the requirements of the credit have been met.</p>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Controllability of Systems, Perimeter Credit 6.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Controllability of Systems, Non-perimeter Credit 6.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Thermal Comfort, Compliance with ASHRAE 55-1992 Credit 7.1-Version 2.1</p> <p>Preliminary Review: The signed LEED letter template declares that the project has been designed to maintain indoor comfort within the ranges established by ASHRAE 55-1992, Addenda 1995. Information on temperature and humidity control ranges has been provided.</p>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Thermal Comfort, Permanent Monitoring System Credit 7.2-Version 2.1</p> <p>Preliminary Review: No Comments.</p>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Daylight and Views, Daylight 75% of Spaces Credit 8.1-Version 2.1</p> <p>Preliminary Review: No Comments.</p>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Daylight and Views, Views for 90% of Spaces Credit 8.2-Version 2.1</p> <p>Preliminary Review: The signed LEED letter template, drawings, and calculations demonstrate that 93.35% of critical visual task areas have direct access to views of the outdoors.</p>	

Achieved	Denied	5	<input type="checkbox"/>	<input type="checkbox"/>	Innovation & Design Process	Possible Points 5
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1	<input type="checkbox"/>	<input type="checkbox"/>	Green Building Education	Credit 1.1-Version 2.1
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Preliminary Review: Project team has provided an intent, requirements, submittals, and design approach for educational opportunities for building occupants through integration of building and landscape, accommodation for outdoor teaching, landscape selection, and aesthetic display of stormwater harvesting. Photos and plans have been included.

As noted in various CIRs including ID CIR Ruling dated 1/13/2003, for a credit in innovation related to education, the team must demonstrate at least two of the following:

1. comprehensive signage program,
2. manual or case study,
3. Outreach program or tour.

The efforts outlined do not represent a comprehensive program as required for credit compliance. It is however recommended that the design team consider coupling this effort with the IDc1.3 energy display submittal in support of a more comprehensive program.

Final Review Per reviewer recommendations, the project team has combined this credit with the energy consumption display previously submitted as IDc1.3 to demonstrate a more comprehensive educational program. Information on the signage and a green building focused tour has been provided, demonstrating two of the three criteria as outlined in the referenced CIR.

1	<input type="checkbox"/>	<input type="checkbox"/>	Exemplary Performance SSc5.1	Credit 1.2-Version 2.1
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Preliminary Review: (Submitted as Window Design to Avoid Bird Collisions)
 Project team has provided an intent, requirements, submittals, and design approach for designing to reduce bird collisions into sheet glass by installing fritted panes. The specific fritting was studied, and a dotted pattern was determined most effective for this purpose in combination with view for humans. A monitoring component including "thump sensors" has also been incorporated to video bird collisions for future study.

As noted in ID CIR Ruling dated 1/9/2002, comprehensive design strategies to reduce building impact on birds meets and exceeds the intent of SSc5.1, Reduced Site Disturbance. The design team has demonstrated a comprehensive approach in this regard.

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

Non-Regulated Process Load Reduction Credit 1.3-Version 2.1

Preliminary Review: Project team has provided an intent, requirements, submittals, and design approach for public display of real-time information of energy use of entire building system.

As noted in various CIRs including ID CIR Ruling dated 1/13/2003, for a credit in innovation related to education, the team must demonstrate at least two of the following:

1. comprehensive signage program,
2. manual or case study,
3. Outreach program or tour.

While this effort provides valuable educational information, it does not represent a comprehensive program as required for credit compliance. This may however be coupled with the IDC1.1 submittal in support of green building education.

Final Review Originally submitted as Energy Consumption Display.

A new ID credit proposal has been included for Non-Regulated Process Load Reduction in the final submittal. The project team has provided an intent, requirements, submittals, and design approach. A base case and design case have been modeled to determine the amount of energy saved by using VAV fume hoods. An energy consumption summary has also been included.

Process loads are not applicable under LEED credits EAp2 or EAc1, therefore the optimization of non-regulated energy loads is recognized by a point for Innovation and Design.

1	<input type="checkbox"/>	<input type="checkbox"/>
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Cooling Tower Water Treatment Credit 1.4-Version 2.1

Preliminary Review: Project team has provided an intent, requirements, submittals, and design approach for utilizing a non-chemical water treatment in the cooling tower to increase equipment efficiencies in the chilled water plant. Information on the system employed has been included.

As noted in IDC1.1 CIR Ruling dated 5/21/03, the environmental benefits of the system, including amount of waste water generated, the amount of treated versus non-treated water, the quantity and impact of each avoided chemical, and in this case the energy savings anticipated must be clearly documented. Please provide additional documentation accordingly to support your submittal.

Final Review The project team has provided a narrative describing each of the issues listed in the referenced CIR, calculations for water volumes, power and savings, and MSDS.

1	<input type="checkbox"/>	<input type="checkbox"/>
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Preliminary Review: The signed LEED letter template has been provided indicating that a principal member of the design team is LEED Accredited. A copy of the exam score sheet has been included dated 2003 and indicating a passing score.