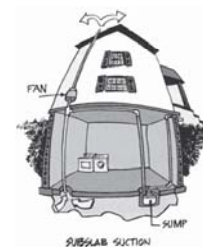


LEED: Indoor Air Quality

Credit	Credit Name	Intent	Solution/Approach	Points Earned
EQc1	Outdoor Air Delivery Monitoring	Control Inside Air Conditions	Install smoke detectors,CO2 detectors, and Radon Monitors in the dormitory complexes.	1 pt
EQc2	Increased Ventilation	Let Underground Gases Escape	Install a radon pipe from below foundation to above the roof to allow the gases and chemicals to escape. Also, include screens in the windows to allow air flow throughout the complex.	1 pt
EQc3	Construction Management Plan During Construction	Maintain pollution during construction	Control pollutants during the main stages of construction. Make sure the workers and equipment do not pollute the local trout stream. Absolutely no smoking in the building during construction	1 pt
EQc3	Construction Management Plan Before Occupancy	Remove All Airborne Pollutants	Flush all pipes, duct work to remove unwanted airborne pollutants. Clean the whole building periodically.	1 pt
EQc4	Low-Emitting Materials Adhesives and Sealants	Use Eco-Friendly Sealants	Use green seal standard Adhesives and sealants, such as EcoGlue, which gives Less than 2% VOC.	1 pt
EQc4	Low-Emitting Materials Pants and Coatings	Use Low-Pollution Paint	Use paint used by the Real Milk Paint Company which made with milk, protein, lime, clay and earth pigments which contains 0% VOC but if adding color combinations can raise VOC levels 10 grams per liter.	1 pt
EQc4	Low-Emitting materials Carpet Systems	Cleanliness of Building	Install low-VOC or "eco-friendly" carpets. Install a grate system in the main entrance so the dirt won't enter the building	1 pt
EQc4	Low-Emitting materials Indoor Chemical and Pollutant Source Control	GoodAir Ventilation	Install air filters in the ventilation systems. Install chemical monitors such as CO2 detectors, and a radon pipe.	1 pt
EQc7	Thermal Control - Design	Maintain Heat	Use Concrete pillars in lobby to hold heat	1 pt
EQc7	Thermal Control - Verification	Maintain Well-Being	Check in with residents after a few months to see if everything is satisfactory.	1 pt
EQc8	Day lighting	Use Sunlight All Year Round.	Have large windows facing the south so that the light is always coming in throughout the year. Also, these large windows will be facing the outside lounge area.	1 pt
EQc8	Day lighting	Use Natural Light	Have windows in every room to gain natural light.	1 pt
TOTAL POINTS THIS CATEGORY				12 pts



LEED: Water Efficiency

Credit	Credit Name	Intent	Solution/Approach	Points Earned
WE 1	<i>Water-Efficient Landscaping</i>	Prevent Run-off Water	The use of certain plants and landscaping will require little maintenance and no irrigation saving time, energy, and money. The building will include a green roof, to catch and reduce storm water runoff, as well as solar panels that will save energy on water heating requirements.	1 pt
WE 1	<i>Innovative Wastewater Technologies</i>	Reduce Potable Water Demand Reduce Wastewater Increase Aquifer Recharge	A catch basin will be placed under the building to capture rainwater for reuse in the dorms (sinks and toilets).	2 pt
WE 1	<i>Water Use Reduction</i>	Maximize water efficiency in the building's daily operations	Waterless urinals and low-flow toilets that use about 1.2 gallon each flush will reduce water use significantly. Low-flow faucets and shower heads that use about 1.2 gallons per minute, compared to regular, which use 3-5 gallons per minute, will save water and use less hot water. The dorm will have front loading washers which use less water than top loaders.	2 pt
TOTAL POINTS THIS CATEGORY				5 pts



LEED: Energy and Atmosphere

Credit	Credit Name	Intent	Solution/Approach	Points Earned
EA 1	Optimizing Energy Performance	Maximize Heating and Cooling	Concrete core with insulated windows on the exterior which will hold heat in the winter, and staycool in the summer.	1 pt
EA 1	Optimizing Energy Performance	Illuminate the Indoors	Walls will be covered in windows to maximize natural light being let in. Solar tube lighting can also be used to get light in added light in the upper floors and possibly the stairwells.	1 pt
EA 1	Optimizing Energy Performance	Provide Shade Indoors	To help from having sun on one side of the building shade panels will be used.	1 pt
EA 1	Optimizing Energy Performance	Use Energy Efficient Light Bulbs	Lights will be compact fluorescent bulbs.	1 pt
EA 1	Optimizing Energy Performance	Conserve Electricity	Select locations (such as bathrooms) will have motion detecting sensors.	1 pt
EA 2	On-Site Renewable Energy		We are going to use solar panels on half of the roof top, dimensions not known right now.	1 pt
EA 2	On-Site Renewable Energy	Suggest Public Transportation	There isn't going to be any parking, however,there will be multiple bike racks at each entrance, and a nearby bus stop.	1 pt
EA 2	On-Site Renewable Energy	Geothermal Heat	For heating and a little electricity, we are going to have a geothermal pump, which will also be used to heat the sidewalks.	1 pt
EA 2	On-Site Renewable Energy	Small Energy Light	For the lighting we will be using motion sensors on all the lighting in the public areas, and we are going to use solar tubes which harness even more sunlight. We will also have lots of windows for natural lighting, and have shades to keep more heat in at night, along with a couple big cement pillars in the main lounges.	2 pt
EA 3	Enhanced Commissioning	Ensure Accuracy	A commissioning agent will create a commissioning plan, and develops the commissioning specs. When something is finished he or she will verify installation and performance of commissioned systems.	1 pt
EA 4	Refrigerant Management	Recover Refrigerant Gases	Use of HVAC "heating ventilation and air conditioning" systems. Properly trained HVAC technician to recover and recycle refrigerant gases using cylindrical tanks. Calculate leak rate and make sure it complies with EPA regulations and the clean air act.	1 pt
EA 4	Refrigerant Management	Recycle Safely	Remove contaminants before reuse, such as oil, acids, chlorides and particulates to be safely used of other uses.	1 pt
EA 4	Refrigerant Management	Reclaim Used Gases	Filtering, diluting and separation of gases to be used in another form then it was originally used. Non-reclaimed gases should be disposed of properly in accordance with EPA regulations.	1 pt
EA 5	Measurement of Building Energy Consumption	Continous Updates	Monthly check up on the energy input vs. output would give the engineers or persons in charge of watching the progress of the building, a constant update on its energy efficiency status. It would also serve as the base information for the annual report.	1 pt
EA 6	Going Green	Renewable Technologies	Install a series of Flex Light Photovoltaic Laminate (PVL) Series, model number PVL-144. The rated power for this is 144W so we would probably need about 15 to 20 for powering the dorm.	1 pt
TOTAL POINTS THIS CATEGORY				17 pts



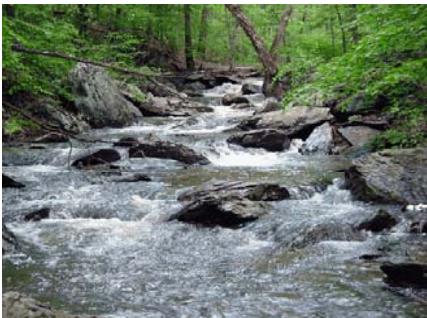
LEED: Materials and Resources

Credit	Credit Name	Intent	Solution/Approach	Points Earned
MR 1	Storage and Collection of Recyclables	Easily accessible recycling receptacles throughout the dorm.	Outdoors: Big belly solar trash compactors. Indoors: Recycling bins throughout the dorms. One per room and a few in the common area and entrances. Containers for: paper, cardboard, glass, plastics, and metals.	1
MR 2	Construction Waste Management	Recycle waste generated during construction	Have separate bins for all different wastes.. concrete, steel, wood, glass. 50% of waste must be recycled for 1 point, and 75% for 2 points.	2
MR 3	Materials Reuse	Use recycled, reused, or refurbished materials in the dorm.	Countertops will be used with recycled glass. Carpet is made from old bottles. Pervious pavement made from old tires. For 1 point, 5% of the total cost of the project materials must be put towards these materials. For 2 points, 10% of the total cost is required.	2
MR 4	Recycled Content	Use Materials With Recycled Content	Leftover materials from construction will be used in concrete. Flyash and slag concrete use waste products. 1 point requires 10% of the total cost of the project materials be put towards these materials. For 2 points, 20% of the total cost is required.	2
MR 5	Regional Materials	Travel Less Than 500 Miles to Receive Building Materials	Countertops: All paper recycling, Inc.- New Prague, MN Concrete: Aggregate Industries, Inc.- Eagan MN Windows: Anderson Windows- Stillwater MN 1 point requires 10% of the total cost of the project materials be put towards these materials. For 2 points, 20% of the total cost is required	2
MR 6	Rapidly Renewable Materials	Use Rapidly Renewable Building Materials	Contribute to at least 2.5% of the total cost of materials for the dorm, cork and linoleum flooring.	1
MR 7	Certified Wood	Use Certified Wood Products	All of our lumber is certified by theForrest Stewardship Council. A minimum of 50% of the cost of wood products purchased must be certified	1
TOTAL POINTS THIS CATEGORY				11 pts



LEED: Sustainable Sites

Credit	Credit Name	Intent	Solution/Approach	Points Earned
SSp 1	Construction Activity Pollution Prevention	Prevent soil erosion, dust, water sediment	We will clear water away from site, redirection of silty water berms, swales, pumping after construction. We will also collect storm water run-off with storage basin. We will be filtering onsite system to remove silt. We also need to mulch and seed to protect exposed soil.	1 pt
SSp 1	Site Selection	Reduce environmental impact; restrict site/building location	We will stay 50 feet away from the stream. We will not be developing on any designated wetland or farmland. The spot we chose has minimal impact on the stream and surrounding woodlands. If we keep foot and vehicle traffic away from the stream and forest this will help prevent erosion and damage to the stream. By keeping grass and trees near the stream as they are this will help prevent harm to the stream as well.	1 pt
SSp 1	Development Density and Community Connectivity	Preserve Natural Resources	Build near an urban area and away from wilderness. This second part can be attained.	1 pt
SSp 1	Alternate Transportation Access	Promote Public Transportation	We will be utilizing the all ready existing transportation systems. We will have an area for bus pick up and drop off on sit. We will have bicycle racks on site in order for students to have a safe place to keep their bikes. This will encourage students to choose a more natural alternative rather than using a vehicle. We will install charging stations for electric vehicles to encourage more efficient transportation if students want an option other then public transportation or by bike. We will not be adding any additional parking spaces for vehicles.	2 pt
SSp 1	Site Development	Do Not Disturb Wetlands	We will stay 50 feet away from the stream. We will not be developing on any designated wetland or farmland. The spot we chose has minimal impact on the stream and surrounding woodlands.	1 pt
SSp 1	Heat Island Effect	Reduce Heat	We must use light colors and materials with an SRI (solar reflectance index) of at least 29. Pervious concrete and permeable, interlocking, cement pavers are perfect for surfaces around the dormitory (walkways, parking lots, and courtyards). As for the roof, we have the option of a green roof that is required to cover 50 % of the roof.	1 pt
SSp 1	Storm Water Design	Clean Storm Water	We plan on trying to use a green roof for at least half the roof. This will soak up much of the storm water drainage as well as helping the heating and cooling effect inside the building. This green roof will also help out on reducing pollution in the storm water and around the building. We also would like to use the pervious pavement for the sidewalks and what not around the building to help soak up more storm water.	2 pt
TOTAL POINTS THIS CATEGORY				9 pts



LEED Summary

	Indoor Air Quality	Water Efficiency	Energy and Atmosphere	Materials and Resources	Sustainable Sites
Summary of LEED Checkpoints	<ul style="list-style-type: none"> - Maintain pollution during construction -Use eco-friendly sealants and paint - Maintain heat and ventilation - Utilize sunlight for heat and light inside dorm 	<ul style="list-style-type: none"> - Utilize wastewater to be used in dorms and also to recharge aquifers - Maximize water efficiency 	<ul style="list-style-type: none"> - Conserve electricity through energy efficient light bulbs, using windows as a source of light and heat, utilizing geothermal heat - Continuous updates, monthly checkup to study input vs. output 	<ul style="list-style-type: none"> - Use recycled and sustainable materials - Recycle waste properly - Use materials produced within 500 miles of build site - Use certified wood 	<ul style="list-style-type: none"> -Promote public transportation -Preserve natural resources and reduce impact on the environment
Implementation	<ul style="list-style-type: none"> - No smoking near or in building during construction, ensure that no workers or materials pollute the local stream - Use green seal standard paints and sealants - Use air filters and chemical monitors - Large windows facing south to make use of light and heat produced by the sun 	<ul style="list-style-type: none"> -Low maintenance plants and landscaping - Top of dorm will consist of a "green roof" - Catch basin beneath building to capture rainwater to re-use in sinks and toilets - Use low-flow toilets, faucets and shower heads 	<ul style="list-style-type: none"> -Light tubes to provide light without means of electricity - Large windows covering sides of building, allowing light in and reducing reliance on lights - Geothermal pump to heat sidewalks - Monthly checkups will be used to evaluate efficiency of building and changes will be made accordingly 	<ul style="list-style-type: none"> -10% of total cost of building should be put towards recycled materials (countertops, pervious pavement, carpet). -Recycle appropriately during construction - Abundance of recycling bins, one in each room, with different containers for each type (glass, paper, plastic, metals) 	<ul style="list-style-type: none"> -Plethora of bike racks, bus stop near dorm, electric vehicle charging stations - Building will be built near campus, keep trees and foliage near stream to minimize impact on the environment
Theoretical Points Earned	12 pts	5 pts	17 pts	11 pts	9 pts