



SLOPED ROOF

Extensive wind study testing was used to determine a roof pitch that would reduce impact on turbine efficiency. For one wind direction, turbine output was INCREASED by 9%.

PHOTOVOLTAIC READY

Infrastructure is in place to allow for a future PV installation that would meet nearly 50% of building electrical need. In the meantime, a low emissivity roof reduces heat gain.

SUSTAINABLE FEATURES

AMERICAN BUREAU OF SHIPPING INFORMATION COMMONS



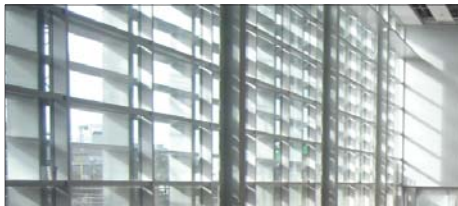
RAPIDLY RENEWABLE WOOD

Bamboo was chosen as the wood type for the interior. This species is considered rapidly renewable and therefore highly sustainable.



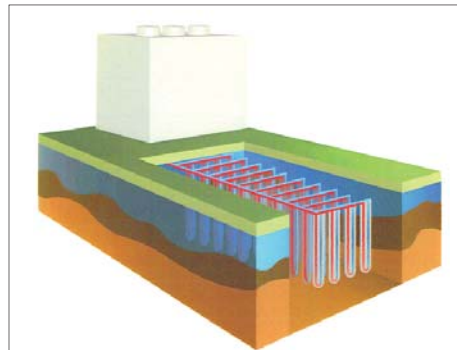
RECYCLED MATERIALS

100% recycled steel
20% recycled concrete
40% recycled insulation



LOUVERS/SUNSHADES

The south facade uses aluminum louvers to limit solar heat gain in the summer, but allow for heat gain during the winter, reducing energy use.



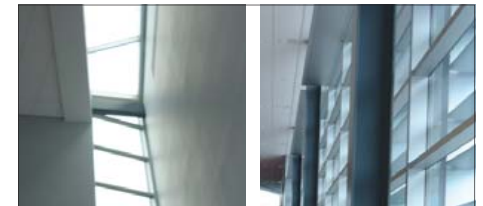
GEOTHERMAL ENERGY

The concept of geothermal heating & cooling takes advantage of the ground as a mechanism for heat exchange. The system works by circulating water through a series of closed loop wells - in this case 48 wells, each 400 feet deep and 20 feet apart. The water is brought into the building through a heat pump and distributed through systems such as the radiant floor and chilled beams. After being pushed through the building the heated or cooled water is then brought back out to the wells for recharging.



LIGHT SENSORS

Light sensors control fixture use reducing the need for artificial lighting when adequate natural light is present.



DAYLIGHTING

The use of natural light has been maximized by the introduction of a continuous skylight and a south facing light shelf.



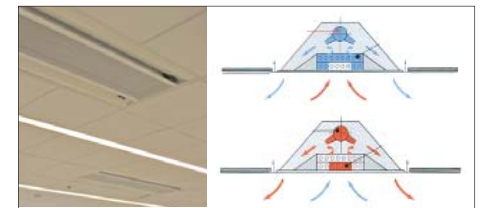
RADIANT FLOOR HEATING

A system of tubes below the terrazzo floor carry water from the geothermal wells to efficiently heat the Learning Commons.



WATER CONSERVATION

Waterless urinals and low flush toilets are used to conserve 32% more water than standard fixtures.



CHILLED BEAMS

Efficient heating and cooling is provided by chilled beams which eliminate VAV boxes and utilize the water from the geothermal system.