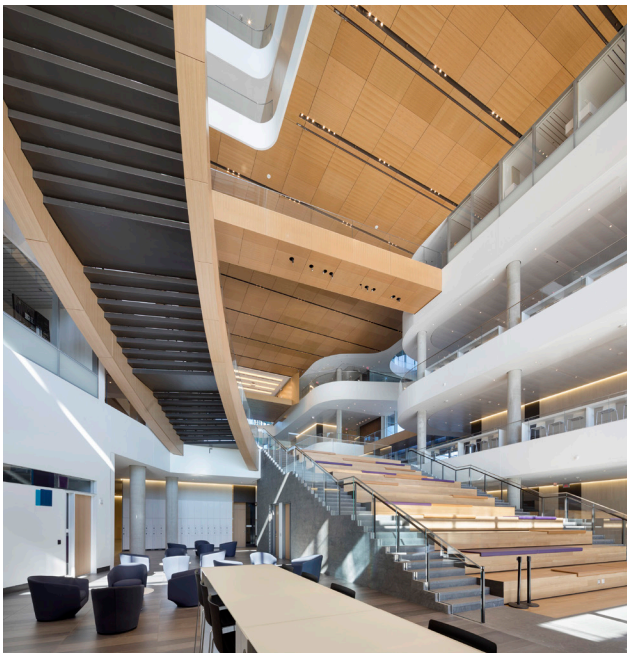
Northwestern | sustainNU

Kellogg Global Hub

Green Building Profile

Located on Northwestern's lakefront in Evanston, the innovative Global Hub is the new home to the Kellogg School of Management. This state-of-the-art facility is one of the University's most innovative and environmentally friendly buildings. The 415,000-square-foot building features flexible learning and gathering spaces, abundant natural light, and views of Lake Michigan and the Chicago skyline. It was designed to meet high standards for energy efficiency, indoor air quality, use of sustainable materials, and other green building practices.

The environmentally friendly design demonstrates the University's ongoing commitment to reducing the environmental impact of campus facilities and achieving net zero greenhouse gas emissions by 2050. The Global Hub first opened its doors in the spring of 2017, and in December 2017, it received Leadership in Energy and Environmental Design (LEED) Platinum certification from the U.S. Green Building Council (USGBC).



Green Building Highlights

LEED certification is awarded based on a 110-point scale. For Platinum certification, a minimum of 80 points is required. Kresge Centennial Hall was awarded 86 points. Noteable features include the following.

- **Sustainable sites:** Those who work and study in the building can easily access public transportation, shuttle stops, and bike parking.
- **Water efficiency:** Efficient fixtures reduce water consumption by 40 percent.
- **Energy and atmosphere:** A geothermal system provides 50 percent of the total heating and cooling demand.
- **Materials and resources:** Roughly 80 percent of waste generated during construction was diverted from landfills through recycling.
- **Indoor environmental quality:** The project team used low-emitting paints, adhesives, sealants, flooring and other materials, resulting in better indoor air quality. Fresh air is circulated throughout the building, resulting in a fresher environment for occupants.

What is LEED Certification?

Leadership in Energy and Environmental Design (LEED) certification is a U.S. Green Building Council program that recognizes building designs that are resource efficient and cost effective while providing a healthier and greener lifestyle for building occupants.

Green Building Features

Sustainable Sites
23 out of 26 possible points

The location of the Global Hub made it possible to earn a number of sustainable sites credits. Building occupants have access to multiple forms of sustainable transportation. Those who work and study in the building can easily access public transportation and Northwestern Shuttle stops. Bicycle racks are provided, and cyclists have access to showers and changing rooms.

Water Efficiency
8 out of 10 possible points

The Global Hub restrooms and kitchens were outfitted with low-flow plumbing fixtures, which conserve water. The landscaping design also reduces water consumption thanks to a highly efficient irrigation system and the use of adapted plants that require minimal watering. A groundwater collection tank provides water for landscape irrigation for the Global Hub and has the potential to supply water for adjacent buildings' irrigation needs in the future.

Energy and Atmosphere
26 out of 35 possible points

The Global Hub is designed to be highly energy efficient. The building's total annual energy usage was modeled to be nearly 45 percent lower than the baseline set by ASHRAE standards.

A geothermal energy field located under an adjacent football practice field taps the earth's constant temperature to provide highly efficient heating and cooling for the building. Installation of this system required drilling 48 double wells 430 feet deep. The geothermal system will provide 50 percent of the buildings heating and cooling requirements, and the building is connected to the central utility plant for supplemental heating and cooling if necessary.

Highly efficient radiant heating and cooling throughout the building provides quiet, comfortable environments for the building occupants.

The building envelope (the outer shell of the building) was also designed for energy efficiency. Triple-glazed, low-e coated windows with solar control help keep spaces cool in the summer and warm in the winter, and automated window shades protect against the heat of the sun when cooling the building.

Another energy-saving feature is the use of efficient LED lighting in roughly 6,000 light fixtures throughout the facility. In addition, daylight sensors minimize the need for artificial lighting. Daylight controls are active in all exterior open public spaces and in spaces open to the atrium.

In addition, the purchase of Green-e certified wind energy will offset 35 percent of the building's electricity consumption.

Materials and Resources
7 out of 14 possible points

To reduce the environmental impact of the products used in this project, in excess of 20 percent of the total materials purchased were produced within 500 miles of the site. In addition, 20 percent of the materials used contain recycled content, and over 50 percent of the new wood used was harvested from Forest Stewardship Council (FSC) certified forests.

Also, 80 percent of all waste generated during construction was diverted from landfills through recycling of wood, concrete, cardboard, steel, plastic, and roofing materials.

Indoor Environmental Quality
11 out of 15 possible points

The Global Hub project team used low-emitting materials such as adhesives, sealants, paints, coatings, flooring and composite wood. A green cleaning policy was also implemented to assist custodial staff in accounting for the environmental impact of cleaning supplies and to help minimize adverse effects. These practices minimize emissions of pollutants such as volatile organic compounds (VOCs) and formaldehyde, resulting in better indoor air quality and increased occupant comfort

Other measures to enhance indoor environmental quality include: the use of carbon dioxide sensors to increase air circulation to densely occupied spaces when necessary: increased ventilation based on national ventilation standards; 100 percent fresh air supply; and careful construction techniques that reduce pollution during construction.

Natural light was carefully considered during design to enhance the atmosphere in the building and reduce the need for artificial lighting. Lighting, heating and cooling controls are provided for building users, further enhancing user comfort.

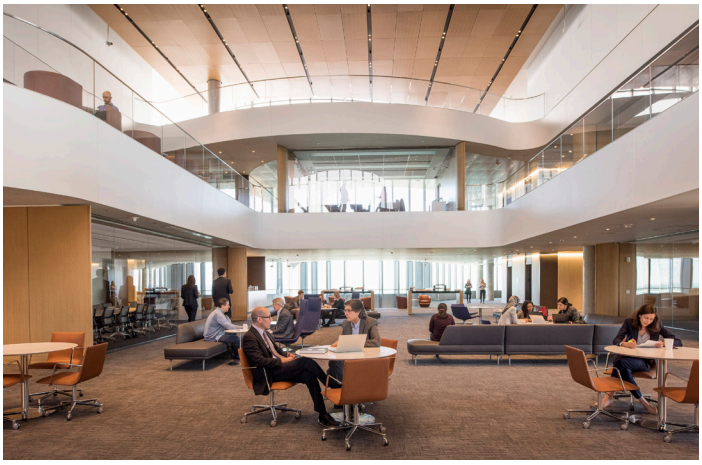
Other Credits
10 points

This project received all possible points in the Innovation and Design category and Regional Priority category, contributing a total of 10 points to the final LEED certification score.

Features that earned innovation credits include lighting with very low or no mercury content, exemplary access to public transportation, and the use of green cleaning protocols and products.

Features that earned innovation credits include lighting with very low or no mercury content, exemplary performance for the use of regional materials, provision of open space, and the use of green cleaning protocols and products.

In addition, the purchase of Green-e Certified wind energy will offset 70 percent of Kresge's electricity consumption.



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