BUILDING GREEN BEGINS HERE

J. F. Ahern Co.
Corporate Building Expansion
Exemplifies Green Building Techniques

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in six key areas of human and environmental health: sustainable site development; water efficiency; energy and atmosphere; materials and resources; indoor environmental quality; and innovation and design.

Ahern earned LEED points for green construction techniques incorporated throughout its 54,000 square-foot building expansion!

AHERN EXPANSION LEED FEATURES

SUSTAINABLE SITE DEVELOPMENT

White Roof: The white roof on Ahern's expansion reduces "heat island" effects by reflecting heat rather than absorbing it.

Exterior Lighting: Ahern utilizes minimal exterior lighting as a means of reducing light pollution. Only two small fixtures are used to illuminate the building, and the parking lot fixtures operate via sensors that operate on a schedule and light only Company property.

Alternate Transportation: Ahern encourages its employees to use alternative transportation methods. The Company accommodates these efforts by offering preferred carpool parking stalls, bike racks, and storage and shower areas for employee use.

WATER EFFICIENCY

Greenwater Reclamation System: Ahern utilizes one of only a few storm water reclamation systems in Wisconsin. Throughout the expansion, toilets and urinals are flushed with collected and treated rainwater.

Bathroom Fixtures: The restrooms feature dual-flush (up for liquid, down for solid), 1.28-gallon-per-flush toilets, and sensor-activated sink faucets, which greatly reduce water consumption.

ENERGY AND ATMOSPHERE

Ice Storage: The Company's ice storage system produces ice at night, to take advantage of off-peak electrical rates. The stored ice is used in tandem with the chiller during peak daytime cooling hours, resulting in increased system efficiency and reduced peak energy demand.

Commissioning: Ahern's experienced commissioning team performed startup, balancing, and functional testing of all the building's mechanical systems.

In-Floor Radiant Heating: The perimeter offices of the expansion receive supplemental in-floor radiant heat, allowing for lower room temperatures without sacrificing occupant comfort.

Natural Lighting: Skylights in Ahern's three-story atrium provide distinct natural lighting to this central gathering area, as well as the surrounding interior offices. Light sensors in this area detect the amount of natural lighting and control traditional lighting as needed.

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Minimal Exterior Lighting

Greenwater Reclamation System

Efficient Bathroom Fixtures

Ice Storage System

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MATERIALS AND RESOURCES

Recyclable Material Collection: Recyclable collection receptacles are conveniently located and labeled throughout Ahern's facility, enabling easy collection of recyclable materials.

Recycled Material: Ahern utilized drywall made of 10% recycled gypsum during construction.

INDOOR ENVIRONMENTAL QUALITY

Carbon Dioxide Monitoring System: CO_2 is measured in densely populated rooms and tracked through a Building Automation System. Ventilation is increased to the space when CO_2 levels are too high, ensuring employee comfort and health.

Low Volatile Organic Compounds (VOC) Usage: Ahern selected low VOC adhesives, paint, wallpaper, and other materials for its building expansion. This greatly improves the indoor air quality, providing a healthier working environment.

Construction Indoor Air Quality Plan: Open ends of duct work and equipment were sealed with plastic during construction to keep out dirt and debris. After construction, the building was cleaned thoroughly and flushed with outside air. The air handling unit cleans the air with MERV-13 filters.

INNOVATION AND DESIGN

HVAC Maintenance: Ahern's Mechanical Service Department implements "green" preventive maintenance and commissioning programs to ensure the building continues to operate efficiently. A Building Automation System (BAS) allows precise system adjustments and troubleshooting, resulting in optimum equipment efficiency.

On-Site LEED Accredited Professionals: LEED Accredited Professionals (AP's) are well-trained in the latest green construction techniques and practices. Ahern employs multiple LEED AP's and is dedicated to increasing the number of AP's on staff to better assist its customers.

Ahern's Efficiency Scorecard

- Estimated energy savings: **25% or $21,000 per year**
- Reduced wastewater discharge: **26% or 25,000 gal/yr**
- Reduced potable water demand: **61% or 110,000 gal/yr**
- Construction waste diverted from landfills: **91% or 1,200 tons**
- Recycled Materials: **20% of total material cost**

Skylights

In-Floor Radiant Heating

Recycling Containers

Building Automation System