

The University of Maine is applying for LEED certification for the newly renovated William C. Wells Dining Center. Following is an explanation of the rating system used for certification and a listing of green building elements as they apply to the Wells renovation.

LEED GREEN BUILDING RATING SYSTEM

What is LEED®? 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.

Sustainable Sites

Site Selection:

- Reuse of an existing building preserves undisturbed wildlife sites
- Mitigates construction waste in landfills
- Reuse of the embodied energy mitigates extensive energy use for new materials and construction
- Wells has a white roof to mitigate heat island effects
- Storm water from campus drains to the Stillwater River. Best Management Practices were employed to minimize storm water-borne sediment from reaching the river
- Bicycle racks and a stop on the Bat Bus route to encourage alternative travel modes
- Development Density and Community Connectivity – Within ½ mile of Wells, there is a bank, two restaurants, a fitness center, museum, theater, library, park, medical facility and place of worship. Wells Dining Center is a hub of the UMaine community

Water Efficiency

- Water use was reduced by 52%
- Water saving fixtures included dual flush toilets (offer a choice of using 1.1 gallons of water per flush or 1.6 gallons of water per flush, instead of using 1.6 gallons all the time) as well as waterless urinals
- Water-efficient landscaping is drought-resistant and requires minimal maintenance

Energy and Atmosphere

- Wells uses 18% less energy than a conventional building of its type
- Zero use of CFCs (chlorofluorocarbons that deplete ozone)

Indoor Environmental Quality

- The paint products used in this building contain no Volatile Organic Compounds (VOC) which can irritate the lungs. VOCs also create harmful smog which affects agricultural crops and forestland.
- Wells contains no composite wood products containing Urea-Formaldehyde-based adhesives

- All chemicals stored in the building (cleaning and photocopy supplies) are stored in rooms that are positively ventilated to the outside to prevent contamination of the indoor air
- Occupancy sensors, timers and dimming switches provide efficient, variable lighting that can be suited to the needs of the occupants
- Temperature controls have been provided throughout all areas of the building to ensure thermal comfort for both the staff and occupants
- Mechanical systems were specially ventilated and substantially “flushed out” before opening the building to clear the air of any residual construction particles and off-gassing of new materials fumes. During construction, all mechanical equipment and ductwork was covered to prevent construction dust from entering these systems
- Part of the flushout requirements is to use high (90%) efficiency filters on the HVAC system to maintain air quality for inhabitants

Materials and Resources

- Wells was built with materials containing a total of 27% recycled content
- 16% of the building materials were both locally sourced and locally manufactured
- 83% of the waste generated in the demolition and construction was diverted from landfill and was either reused or recycled
- 88% of the existing envelope and structural components of Wells were retained in the renovation
- Dedicated recycling stations throughout the building