



# Dexter Library

## Green Features

Through the design decisions and implementations outlined below, the library renovations have turned an outdated, high energy consumption building into a highly sustainable, green building.

### SUSTAINABLE SITES

- ⊙ Onsite storm water management reduces the impacts of storm water runoff (quantity and quality) from the roof. This is achieved through a bio-swale landscaped with native plants.
- ⊙ Minimal exterior and site lighting reduces light pollution and improves night sky access.
- ⊙ Nearby shower facilities and bike racks promote alternative transportation.
- ⊙ Designated carpool parking limits availability of parking as a means of encouraging ridesharing to and from the library.

### ENERGY & ATMOSPHERE

- ⊙ The library is equipped with a 14kW Photovoltaic Solar Array on the roof to produce energy for the building. Real time and historical data for the array can be viewed online at:

<http://view2.fatspaniel.net/PV2Web/merge?&view=PV/standard/Simple&eid=259624>

- ⊙ 30 geothermal wells extend 230' into the earth south of the library reducing energy and operating cost and produce no carbon dioxide.
- ⊙ 48 occupant light sensors save energy and reduce electricity bills by turning lights off when not in use.
- ⊙ 500sf of new window area including a skylight increases natural day-lighting and reduce the need of artificial lighting.
- ⊙ Increased roof insulation increases energy efficiency.
- ⊙ Electricity for Dexter Library and Northland College is generated from the burning of waste wood in the form of sawdust, wood chips and tree bark.

### MATERIALS & RESOURCES

- ⊙ 2,475 square yards of new carpet that is 35%-38% Pre-Consumer/Post-Industrial, and 33% Post Consumer.
- ⊙ Designated recycling areas serve the library for the collection and storage of paper, glass and plastic and metals.
- ⊙ 50% of new wood-based products and materials are FSC-certified.
- ⊙ 30% of the Furniture and Furnishings were reused and/or refurbished.
- ⊙ 20% of building materials manufactured within 500 miles thereby supporting the regional economy and reducing the environmental impacts resulting from excessive transportation.
- ⊙ 75% of construction and demolition waste diverted from landfill. These materials were either recycled or reused, reducing the burden on landfills and the demand for virgin resources.

### WATER EFFICIENCY

- ⊙ Low-flow plumbing fixtures reduce the burden on municipal water supply and waste water systems.

### INDOOR ENVIRONMENTAL QUALITY

- ⊙ An established indoor air quality (IAQ) management plan reduces indoor air quality problems resulting from the construction/renovation process, to sustain long-term occupant comfort and well-being.
- ⊙ Extensive use of materials low in volatile organic compounds (VOCs) reduces the quantity of indoor air contaminants that are odorous, potentially irritating and/or harmful to the well being of occupants.