

## Institute for Social Research Addition



### Project Description

This project includes construction of a four-level addition of approximately 44,700 gross square feet and renovation of approximately 7,200 gross square feet of space within the existing Institute for Social Research building. The Institute for Social Research would like to modify the scope of the project to increase the size of the addition to approximately 56,700 gross square feet, primarily through construction of one additional floor, and to increase the area of renovation where new construction attaches to the existing building to 12,800 gross square feet. The newly added research space is needed to address the institute's continued growth in programs and projects, including a significant increase in federally funded initiatives.

### Energy Efficiency Measures

- The Institute for Social Research Addition designed to consume 30 percent less energy than allowed by the 2007 edition of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1
- Use of hydronic chilled beam terminal induction cooling devices, which transfer cooling through liquid rather than air and which eliminate fan energy for large ductwork. Distribution of cooling within rooms via induction minimizes distribution energy within rooms
- Installation of an enthalpy energy wheel to recover waste heat
- Cooling tower winterized, to allow "free cooling" when outdoor air temperature is low
- Use of increased building envelope inspections, including infrared scans during construction to identify missing insulation and gaps in the building enclosure
- High efficiency lighting throughout
- Inclusion of an atrium to bring natural daylight into interior of building, which reduces the need for artificial lighting
- Occupancy sensors to control lighting
- High efficiency chiller
- Increased thermostat dead band (the gap between heating and cooling set points during which no heating/cooling is required)
- Individually controlled window shades, to minimize solar heat gain on sunny days

### Other Sustainability Features

- This project is LEED® certified to the Gold level and achieved 63 points under the LEED for New Construction v2009 rating system.
- Installation of a living "green roof" to provide natural conductive roof insulation, to reduce peak storm water run-off, to utilize solar radiation, and to provide thermal inertia for the building (which minimizes peak heating and cooling loads)
- Installation of low flow plumbing fixtures to reduce water consumption 40 percent below the consumption rate of a typical building
- Utilization of an urban building site that is convenient to U-M and public transportation and no installation of parking, to further encourage use of mass transportation
- Use of selected sustainable materials, such as terrazzo flooring

**Institute for Social Research Addition**

- Use of low-VOC materials, such as carpeting and paint
- Use of Certified Wood products
- Use of low emittance furniture
- 37 percent of new materials from local/regional sources
- 20 percent of new materials from recycled content
- 56 percent of nonhazardous construction and demolition debris recycled and/or salvaged by implementing a construction waste management plan
- Combined chilled water/fire suppression piping to minimize excess piping in the building
- Consideration of translucent floor panels in the floor of the atrium, to provide natural lighting to occupied basement areas
- Solar optimization of atrium skylight monitors via energy modeling
- Installation of new glazing at existing offices that will now front atrium, to provide natural lighting without building envelope heat gain/loss

**Project Data**

- Budget: \$23 M
- Schedule: Completion Scheduled for Spring 2013
- Square Feet: 12,800 gross sq. ft. renovation  
56,700 gross sq. ft. addition

**Substantially Complete: May 2014**

- Project Status: Substantial Completion
- Design Complete: 100%
- Construction Complete: 100%