

North Campus Recreation Building Renovation



Project Description

The project includes renovation of the entire approximately 67,000-gross-square-foot building, including renovated racquetball and squash courts, sauna, staff offices, and meeting rooms; expanded weight training and cardio spaces; a group exercise room; Americans with Disabilities Act-accessible locker rooms; a gender-inclusive locker room and restroom; and a resurfaced running track that removes the banked turns. The project scope will also address heating, ventilation, and air conditioning systems; replace the electrical substation and boilers; update the fire detection and alarm system; install fire suppression; replace lighting and pool equipment; reconfigure the main building entrance to improve functionality and visibility; and construct a small canopy addition.

Energy Efficiency Measures

- The building's design and systems will include a number of energy efficient features that will allow for energy savings of about 30% compared with a code energy compliant building as defined in ASHRAE 90.1-2007 Appendix G
- New Windows - utilizing insulated energy efficient units
- Enthalpy Wheel - allows return air to condition outside air which reduces heating/cooling load in the air handling unit
- HVAC Controls - designed to prevent simultaneous heating and cooling; control temperature using occupancy sensors
- Increase thermostat "deadband" to limit equipment cycling
- Variable drives on equipment allow equipment to conserve energy when demand is low
- Variable air volume HVAC systems
- Ventilation of mechanical fan room with relief air
- Chilled water is generated at high efficiency central chiller plant
- Direct digital controls
- Energy Efficient Lighting - new natatorium lighting, LED lighting
- Daylight Harvesting - switching perimeter lighting to take advantage of daylight
- Daylighting & Views - glazing has been added to increase the proportion of spaces that will have direct access to natural daylight and views to the out-of-doors
- Lighting Controls - occupancy sensors, photocells, time clocks

Other Sustainability Features

- Public Transportation Access - the building's location allows users and occupants to utilize public transportation, which reduces single use vehicles on campus. The new canopy adjacent to the bus stop encourages use
- Building Reuse - the project will maintain at least 75% of existing walls, floors, and roof
- Construction Waste Management - should achieve a high degree of success in reducing the amount of construction and waste materials being sent to landfills
- Recycle - Most of the new resilient sports flooring is planned to be procured from manufacturers who use a large quantity of recycled rubber products in the flooring systems
- Bike Share Program - The facility includes a City-owned on-site Bike Share rack
- New thermally efficient and double insulated aluminum curtain wall window systems will be installed to provide transparency into and out of the exercise spaces
- A 20% water consumption savings beyond Michigan Plumbing Code is anticipated. Savings will be obtained via use of dual flush water closets, 1/8 gallon flush urinals, and automatic sensor operated

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- New Athletic Wood Flooring for this facility will be manufactured from Certified Wood and will be procured within a 500 mile radius of the site
- Low emitting materials will be specified for use whenever possible
- Local and regional materials are being specified for many parts of this building