

West Quadrangle and Michigan Union-Cambridge House Renovation



Project Description

Originally constructed in 1937, West Quadrangle, combined with the Cambridge House portion of the Michigan Union, is an approximately 370,000-gross-square-foot residence hall housing approximately 1,100 students. As part of the ongoing Residential Life Initiative, a deep renovation of West Quadrangle and Cambridge House. Dining services for West Quadrangle residents will be relocated to the expanded Central Campus Dining Center at South Quadrangle, allowing renovation of the current West Quadrangle dining area into much-needed spaces for student interaction, creation of community, study and practice rooms and living and learning activities. Infrastructure upgrades will include new plumbing, heating, cooling, and ventilation systems; roof replacement; renovated bath facilities; exterior envelope and window repairs; and accessibility improvements.

Energy Efficiency Measures

- The building's design and systems include a number of energy efficient features that allow for an estimated 35% energy savings compared with a code energy compliant building as defined in ASHRAE 90.1-2007 Appendix G
- This project has been approved for the Designed to Earn ENERGY STAR® certification. This certification recognizes that this design project has met Environmental Protection Agency
- Increased wall insulation
- New roof insulation
- Improved glazing performance in Cambridge House where windows were replaced
- Utilized occupancy sensors in all common areas
- Utilized infrared scans of building during construction to minimize air infiltration
- Inspected exterior wall and fenestration during construction
- Energy efficient, regional chiller plant located in South Quad will serve cooling needs of the West Quad and Michigan Union-Cambridge House
- Utilized enthalpy wheels to recover heating and cooling energy from the exhaust systems
- Improved air conditioning system
- Reduced lighting density throughout the building

Other Sustainability Features

- Public transportation is available with one bus stop in front of the building, on the other side of the street
- Additional bicycle parking provided
- Most of the existing trees were preserved
- Native and adaptive vegetation planted to reduce irrigation needs
- Low flow fixtures installed to reduce water consumption by 20%
- West Quadrangle was renovated at its current location with great majority of both exterior and interior walls refurbished
- Existing site lighting poles, lamps and globes were reused
- Demolished material was recycled and/or reused; this includes steel, brick and block.
- Building materials, local and regional were sought wherever possible
- Low VOC product selection

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Project Data

- Budget: \$114.5 M
- Schedule: Completion Scheduled for Summer 2016
- Square Feet: 370,000 gross sq. ft. renovation

Substantially Complete: July 2015

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