

Couzens Hall Renovation



Project Description

Constructed in 1925, with a large addition added in 1956, Couzens Hall is an approximately 180,000-gross-square-foot residence hall housing 526 students. The renovation will repair and update infrastructure, including: new plumbing, heating, ventilation, fire detection and suppression systems, wired and wireless high-speed network access, renovated bath facilities and accessibility improvements. In addition, air-conditioning will be provided throughout the renovated building. New community and program spaces will be created in the dining areas that became vacant with the opening of the Hill Dining Center in the fall of 2008. New and reorganized spaces within the facility will revitalize the old residence hall and create spaces for living-learning and academic initiatives, student interaction, and creation of community. The energy performance of the overall building will be brought up to our current design guidelines by a number of energy conservation measures.

Energy Efficiency Measures

The Couzens Hall Renovation design focuses on maximizing energy efficiency and incorporates numerous energy conservation measures including:

- Insulating all existing exterior walls that are not currently insulated.
- Replacing existing window framing and glazing in the west half (original) of the building and replacing glazing in the east half (newer addition) of the building to increase thermal performance.
- Utilizing the chilled water from the Mechanical Services Building adjacent to Mosher Jordan Residence Hall as the cooling source for the Resident Rooms in lieu of DX units.
- Reducing the lighting power density for the first and second floor common areas.
- Utilizing space occupancy sensors in the resident rooms to reduce lighting power density and reduce run hours for the fan coil units.
- Utilizing space occupancy sensors on the first and second floor common spaces to reduce run hours for the central station air handling units.
- Using increased inspections, including infrared scans during construction to identify missing insulation, gaps in the enclosure and other wall/roof assembly deficiencies.
- Using an enthalpy wheel in the mechanical system as a means of energy recovery to utilize the lost heat from the toilet room exhaust system.

Other Sustainability Features

- Couzens Hall is being renovated on its current site with over 95% of the existing walls floors and roof and 50% of the interior non-structural elements being reused.
- Access is being improved thus encouraging the use of UM and public transportation.
- Bike racks will be installed to encourage the use of bicycles for transportation.
- No new parking will be provided on site (to reduce pollution and land development impacts).

- The use of water conserving plumbing fixtures including low flow toilets, urinals and shower heads will reduce water consumption by over 20%.
- Daylighting and views will be provided for over 75% of the spaces in the building.
- Use of regional and local materials used where possible (not less than 10%).
- Use of low VOC materials including adhesives, sealants, paints, coatings, carpet systems, composite wood and agrifiber products.

Project Data

- Budget: \$49 M
- Schedule: Completion scheduled for Summer 2011
- Square Feet: 180,000 gsf