### **Project Description**

The approximately 34,000 gross square foot Alumni Center, designed by architect Hugh Newell building and increase the capacity of the staff workplace. The project was successful in Jacobsen, was constructed in 1982 and is considered an iconic and significant building on meeting these programatic goals while maintaining the original programmatic functions campus. The project, which renovated 25,000 gross square feet and added 1,250 gross square of the building and conserving resources by reusing the existing envelope and structure feet, set out to create a more inviting pubic entrance, improve circulation throughout the and improving the energy efficiency and functionality of the interior through renovation.



### **Building Reuse**

The program was achieved by reusing the existing building envelope and structure, significantly reducing both energy and waste associated with demolition and construction as well as the extraction, manufacture and transportation of new building materials

### **Entrance Vestibules**

Vestibules have been added to both the existing southeast entry as well as the new west entry, reducing heat loss and heat gain from wind and stack effects by creating an airlock entrance in an area of high volume pedestrian traffic



### **Tree Preservation**

Mature deciduous trees on the western side of the building are preserved and will continue to block low afternoon sun from entering west-facing windows during peak heat gain periods in the summer, while allowing the sun to heat the building in the winter months

# CHITECTURE, ENGINEERING AND CONSTRUCTION

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## Water Savings

Nearly 92,000 gallons of water per year will be saved with low-flow plumbing fixtures

### **Daylight Harvesting**

- An opening in the lobby floor brings daylight into the lower level while a new open spiral stairwell encourages stair use in lieu of the elevator
- Throughout the building regularly occupied spaces are strategically placed in areas with either direct sunlight or borrowed natural light
- Daylight reinforces circadian rhythms which lead to greater comfort and productivity, and daylight sensors reduce the need for electrical lighting





# View from west (Ingalls Mall)



# **Sustainability Facts**

Alumni Center Renov	vation		
Building Use		Office/ Assembly	
Location		Ann Arbo	r, Michigan
Size		26,250 S	quare Feet
Number of Occupants			612
ASHRAE 90.1 version			2013
Total energy savings		\$462 / year	
Total electrical savings		1,211	KWh / year
Total gas savings		368 The	erms / year
CO2 emissions avoided			3 tons
Water <u>fixture baseline</u>		2012 Michigan Plumbing Code	
Total water savings			31%
Insulation (R-Value)*		Code	Project
Wall assembly - below grade		7.5 c.i.	10 c.i.
Glazing - Curtain wall system at Vestibule			
U-value**		0.42	0.24
Solar Heat Gain Coefficient (SHGC)**		0.40	0.21
Glazing - Visible Light Transmittance (VT)***			0.48
<u>Project Team</u>			
Owner	University of Michigan - Alumni Association		
Architect	Integrated Design Solutions with Hartman Cox		
Engineer	Integrated Design Solutions		
Contractor DeMaria Building Compancy Inc.			
Commissioning Authority		U-M AEC	
Project Management			U-M AEC

Design Period: 02/2018 - 03/2019

Construction Period: 06/2019 - 09/2020

The higher the R-value the better the insulating quality (c.i. = Continuous Insulation)

The lower the U-value and SHGC the more energy efficient the window

\*\*\* The higher the VT value the more daylight in the space. VT is measured between 0 and 1



### **Alumni Center Renovation**

P00013414 U-M Project Number