THE UNIVERSITY OF CHICAGO
SAIEH HALL FOR ECONOMICS

LOCATION
Chicago, Illinois

OWNER
The University of Chicago

PROJECT TEAM
dbHMS
Ann Beha Architects
ecube, inc.

COMPLETED
2014

AWARDS
AIA Illinois Frank Lloyd Wright Award for New Design or Renovation, 2016

CBC Merit Awards-CBC/COAA Owner's Choice Awards, 2015

Design Excellence Awards, Boston Society of Architects, Honor Award, 2014

SEAOI Excellence in Structural Engineering, Best Renovation / Retrofit, 2014

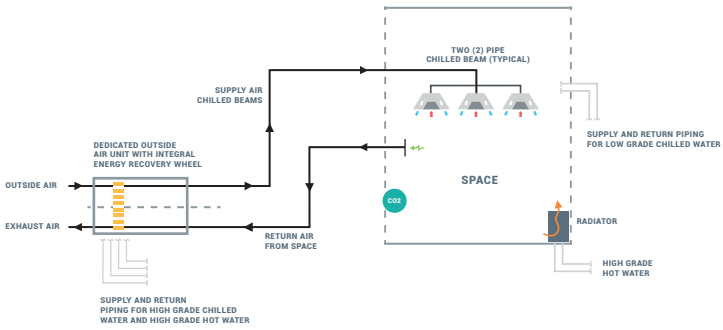
SCUP Excellence in Planning Honor Award, 2014

The renovation of Saieh Hall (100,000 sf) concentrated on the adaptive re-use of and addition to the historic Theological Seminary building constructed between 1923 and 1928. The building consolidated the educational program on the west and the administrative offices on the east, allowing the load and airflow distribution to be uniform throughout each wing.

The building is served by campus steam and chilled water systems. The conditioning of a historic space requires systems that provide a balance of efficient airflow delivery, while maintaining the appropriate aesthetics. The design solution included an analysis of computational fluid dynamics to optimize an airflow delivery method at select areas in the chapel, ensuring adequate cooling and heating throughout the space.

The project achieved LEED Gold certification.

CONCEPT DIAGRAM



Saieh Hall includes an array of active chilled beams throughout the building. Local hot water radiators provide an aesthetic effect throughout the building and tie into the local controls for each zone. Coupled with the chilled beam system, a dedicated outside air unit that provides ventilation air into the building. The system has energy recovery capabilities through an energy recovery wheel integral to the unit.

Table 1: Predicted Energy Performance Relative to ASHRAE 90.1-2007 Baseline

Energy	Energy Model	Baseline
Electricity Consumption	655,172 kWh	714,879 kWh
Purchased Chilled Water	2,284354 kBtu	3,127,174 kBtu
Purchased Steam	2,054,818 kBtu	3,663,465 kBtu
Total Consumption	**6,575 MMBtu**	**9,230 MMBtu**

Table 2: CO2 Reduction from ASHRAE 90.1-2007 Baseline

Energy	Energy Model	Baseline	Reduction
LBs CO2 Emitted*	769,078	714,879 kWh	310,555
Estimated Building Energy Intensity (kBtu/sf)	65.2	91.6	26.3