

Building Automation Systems

Project: Princeton Theological Seminary



Originating when CM3 was a Siebe Environmental Controls branch office, this collaborative customer relationship spans forty years with CM3 providing \$5.5M in building automation & installation services across two campuses and +20 buildings.

Background

Founded in 1812, Princeton Theological Seminary is the second-oldest seminary in the United States, and the largest of ten seminaries associated with the U.S. Presbyterian Church. A professional and graduate school of the Presbyterian Church, the seminary also operates the largest theological library in the United States and the second largest in the world (after the Vatican in Rome).

A 40-Year Relationship

From its early days, CM3— as a Siebe Environmental Controls branch office— was the building automation provider for the Seminary, with the first project implemented in 1986, an electronic controls installation at Stuart Hall.

From then until present day, CM3 has provided building automation systems across the Seminary's multiple campuses and buildings — from residential and academic buildings to libraries and parking structures.

Over the years, the building automation systems deployed have included pneumatics (in the late 1980's), then analog, following by digital, and finally to today's DDC (direct digital controls).

Since 2000 and through present day, CM3 provides an annual maintenance contract to the Main and Satellite Campuses.

CM3 has provided building automation system maintenance to the Seminary for nearly 40 years. In addition to ensuring occupant comfort and energy efficiency throughout the campus, one important area of work has been in managing and maintaining the temperature and humidity challenges at the Wright Library.

The Seminary houses special collections up to 700 years old, and CM3 has played a major role in helping the Seminary in storing and maintaining thousands of artifacts and rare books of varying ages and composition.

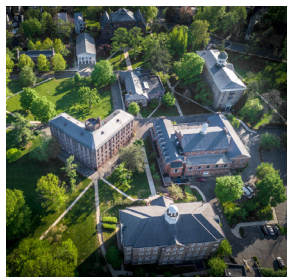


CM3 provided comprehensive building automation systems for heating, ventilation, & air conditioning (HVAC) throughout the Main Campus & Satellite Campuses.



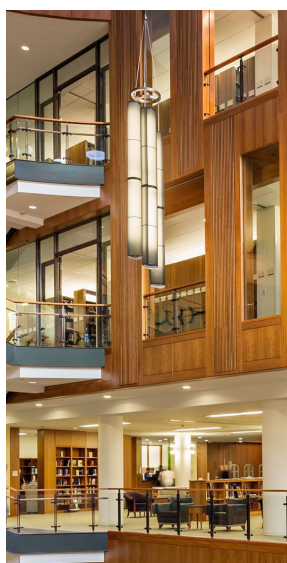
Residential Projects:

- Heating and cooling systems
- Student and faculty housing
- Residence halls with fan coil units
- Apartments with individual metering
- Individual home (Springdale House)



Academic, Athletic, & Professional Buildings:

- Heating and cooling systems
- System upgrades
- Renovations and building use conversions
- New construction (design and installation)



Special Projects:

- Dining Hall with air handling units along the perimeter, digital controls (1991)
- Steam plant with 3 boilers and underground steam lines— monitoring and controls to provide District heating to campus buildings.
- Chiller plant with 3 chillers (1986, 1991, 2000) to provide District cooling to campus buildings
- Parking structure (2003)
- Chapel renovation with all automated controls (2005)
- West Windsor campus geothermal system installation (2009 - 2010)
- Bicentennial Library (140,000 sq. ft., now Wright Library) demolition of Spear Library and renovation of Luce library (2010 – 2013)



Equipment:

- Air handling units
- Boilers
- Chillers
- Fan coil units
- Geothermal systems

1986	Stuart Hall <i>Renovation</i>
1986	Templeton Hall <i>New Construction</i>
1986	Chiller Plant - Chiller 1 <i>New Construction</i>
1991	Mackay Campus Center <i>Renovation</i>
1991	Chiller Plant - Chiller 2 <i>New Construction</i>
1992	Alexander Hall <i>Renovation</i>
1993	Hodge Hall <i>Renovation</i>
1993	Luce Library <i>New Construction</i>
1994	Brown Hall <i>Renovation</i>
1997	Erdman Hall <i>Renovation & New Addition</i>
1999	Witherspoon Apartments (Wilson Campus) <i>New Construction</i>
2000	Chiller Plant - Chiller 3 <i>New Construction</i>
2000	Scheide Hall <i>New Construction</i>
2000	Seminary Chapel <i>Historic Renovation</i>
2001	Payne Hall <i>Renovation</i>
2002	Parking Structure <i>New Construction</i>
2009	Charlotte Rachel Wilson (CRW) Campus (Multiple Buildings) <i>New Construction</i>
2010	Bicentennial (now Wright) Library <i>New Construction</i>
2016	Springdale House <i>Renovation</i>
2020	Brown Hall <i>Renovation</i>

