

Mumford Hall #0069

Building Gross Sq.Ft.: 100,150

Retrocommissioning Aug 2014 -Sept 2014

Team Visit Period:

Principal Building Use: Offices and Classrooms



Building & Occupant Overview

Mumford Hall was built in 1923. There are 2 major air handling units serving the building. AHU1 is a typical VAV system with DDC VAV boxes, while AHU2 is a constant volume fan serving three offices on the fourth floor. A majority of the building is not served by a central system, but has a window AC and perimeter heat for tempering purposes. There are also some condensing units that serve groups of offices and/or a single classroom/auditorium. Building heat is provided by two hot water radiation systems. The building controls consist of a combination of Alpha LON controllers and two Siemens 24pt compact controllers for the AHU's.

The facility's total metered energy during FY13 was 7,373 MMBTU.



Retrocommissioning Specifics & Results

Some of the air handling units were maintaining space conditions in offices and classrooms based on an assumed schedule without input from the people occupying the spaces, the others were 24/7. The primary energy conservation method was scheduling the AHUs off during tighter non occupied hours based on actual utilization. Basic controls were also added to AHU3 serving the north auditorium on the first floor. The unit also went from being able to run 24/7 to on a typical class schedule with occupancy sensors for outside of typical operating hours. Classrooms on fourth (422 and 426) were also upgraded to newer programmable thermostats and put on schedules with occupancy sensors.

To maintain comfort conditions, all thermostats and VAV's were calibrated and inspected for proper operation. There are 22 VAV's in the building. The airflows were also balanced allowing in many cases for a reduction in flow to the spaces, resulting in fan energy savings without compromising comfort.

Project Highlights

- Corrected and installed occupancy sensors on AHU1 VAVs
- Calibrated all sensors and transducers
- Visited each VAV and thermostat and calibrated accordingly
- Modified existing scheduling to better match building usage
- Added occupancy sensor and basic controls to AHU3 (Auditorium Unit) and put on schedule, formerly 24/7/365
- Corrected building pressure tubing
- Installed new programmable stats in 422 and 426 classrooms, w/ occupancy sensors for setbacks
- Replaced Badger meter for ABB Magmeter on condensate