

North Canton YMCA HVAC Upgrade

Project Location: North Canton, Ohio

Project Date: 2006



Project Description:

Two major HVAC systems each approximately 38 years old were in desperate need of upgrade and replacement. The Natatorium Air Handling Unit was rapidly deteriorating from both age and the chlorine exposure. The Steam Boiler plant was woefully undersized and in bad condition due to lack of use as the YMCA had been receiving free steam from the adjacent Hoover plant for many years.

The project was challenging from both a timing and spatial perspective. The YMCA could not afford a major downtime without negative impact on its membership. In addition, the existing Natatorium Air Handling Unit was located in a basement with limited accessibility due to facility expansions since the original construction. The Steam Boiler plant was located in an attic equipment room with no major exterior openings.

The new Natatorium Air Handling Unit is located on the roof with new ductwork to the existing basement equipment room for connection to the existing supply air distribution system. The original exhaust ductwork was reused with slight modifications to pull air off the pool deck and route all exhaust air thru an energy recovery device which is integral to the Natatorium Air Handling Unit. The new unit also has a slightly greater air volume capacity (18,000 CFM) than the original unit. The new system is more energy efficient and provides a greater level of occupant comfort.

The new Steam Boiler plant consists of two (2) 175 horsepower 6037 lb/hr 10 psig natural gas fire tube "Ohio Special" boilers in the attic along with a new duplex feed water pump in the basement. Other specialties include combustion air fans, steam traps and new steam heating coils for the ducted zones served by the new natatorium AHU.