

Sinclair Community College Building 7 Fan-Coil Unit Replacement

Dayton, OH

Construction Completion: 2018
Construction Cost: \$600,000
Tri-Tech Services: MEP Engineering

Project Description

To offset its heat and cooling skin load, Sinclair Community College’s Building 7 is equipped with perimeter fan-coil units. Each unit receives make-up air through a central air distribution system. The building’s fan-coil units had grown outdated, well-beyond their effective lifespan. The client desired to replace the units along with the ductwork and piping supplying the units, and the controls.

Tri-Tech performed a feasibility analysis of the project scope and anticipated construction costs. Tri-Tech’s analysis determined that the client’s preliminary budget would not be sufficient.

Tri-Tech phased the project into three parts, working closely with the client to identify and confirm the most effective strategy for replacing the fan-coil units.

The building’s fan-coil system consists of two-pipe fan-coil units that provide heating or cooling. These units are located in the building’s offices, conference rooms, and administrative spaces. Make-up air is provided by a dedicated outside air unit with ductwork serving the fan coil units.

Throughout the project, the branch ductwork and piping will be replaced, along with the fan-coil units. And the controls will be upgraded to place the units on the existing building DDC system.

Tri-Tech’s design involves modifying the system to account for revised building loads from the original design conditions.

Tri-Tech’s design and phasing of the project is helping ensure successful replacement of the fan-coil units and related systems that meets and satisfies the client’s budget’s needs.

