

MAKING BUILDINGS BETTER



WHEELING VILLAGE HALL

Owner: Village of Wheeling

Architect: Sente, Rubel, Bosman & Lee

Mechanical Engineer: Consolidated Consulting Engineers

Mechanical Contractor: Voris Mechanical

Customer Challenges:

The village had an outdated municipal building which did not allow it to upgrade to higher technology operations. To make the village more comfortable with the new equipment and controls, Trane provided a five year service agreement on the control system with remote monitoring.

Trane Solution to the Challenges of the Project:

The Trane sales engineer worked with the design engineer to create a fan array air handler which reduced the operating costs of the unit. The fan array will be more reliable than a typical supply fan due to its inherent redundancy. Also, the unit has a smaller footprint than a typical air handler. This arrangement saved space in the building. The Trane control system allowed the supply fan to optimize the static pressure for further energy savings.

Unique Features About the Project:

The Fan Array Custom Air Handling Unit allowed for proper air mixing with no stratification through the whole unit. Direct drive plug fans on supply and exhaust, plus Traq dampers on outside air allowed the unit to directly measure air flow. Also, there was thermal imaging performed on the unit to verify the effectiveness of the air blender.

Trane Equipment/Controls:

- Air-Cooled RTAC Chiller
- Fan-Powered VAV boxes
- Trane Custom Fort Smith AHU with 2X2 fan array
- VFD's wired to each supply and exhaust fan
- Tracer Summit Building Automation System and Trane programmable unit controllers.

GOVERNMENT