

# Northern Adirondack Central School District Commissioning for the Elementary School and Middle/High School

## Ellenburg, NY

**Novus Engineering, P.C.** provided commissioning services for renovations and new additions to both the existing Elementary School and Middle/High School for the Northern Adirondack Central School District (NACSD) in Ellenburg, NY.

Novus verified the installation and operation of all energy-consuming systems for both buildings. The direct digital control (DDC) systems were carefully reviewed to ensure that equipment performs consistent with the design intent. In addition, Novus confirmed requirements necessary to obtain the New York State Energy and Research and Development Authority (NYSERDA) incentives for energy measures identified in previous energy technical assistance (TA) studies also completed by Novus.

The NACSD substantially renovated their existing 79,974 square foot elementary school and built a new 1,100 square foot single story addition. The building has a basement, first floor and partial second floor. A variety of different HVAC system types are used including hydronic heating, DX and chilled water cooling, RTUs, and heat recovery. The control systems were completely upgraded. Lighting was replaced in all classrooms and new windows and a new roof were installed.

The existing, approximately 106,859 gross square foot, single story, middle and high school was substantially renovated. In addition to the renovations, a 13,000 square foot new classroom addition, a 3,900 square foot new entryway addition, and a 7,500 square foot new gymnasium addition were constructed. The HVAC system design includes replacing existing propane-fired multi-zone roof top units with packaged roof top units (RTUs) with hot water coils and hot water reheat coils serving each classroom. Heat recovery ventilation is included in all RTUs. Demand controlled ventilation is used in the library, the cafeteria, auditorium and both gymnasiums. Electric resistance heaters were replaced with hot water cabinet unit heaters and baseboard heat.

Construction on both buildings started in the summer of 2011 and the buildings were occupied in the winter of 2012. Commissioning activities started in October 2011 and continued through early summer 2013 in order to resolve outstanding controls issues.



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