

SPECIALTY CONTRACTOR: MECHANICAL & PLUMBING

Greer High School | Major HVAC Renovation

Section 1 — Contracted Scope

Provide a detailed description of your scope for this project (maximum of one page). Responses should include: type of construction; size of project; contract value; length of project; and percentage of labor that is self-performed.

Project Location

Greer, SC

Waldrop's Role

Prime Contractor,
Self-perform HVAC

Contract Value

\$6,935,148
(includes Owner-Initiated
Change Orders totaling \$775,000)

Project Duration

Demolition/Construction
12 months
Sept. 1, 2011 – Aug. 9, 2012

Preconstruction Phase

Preconstruction began
September 2011; sheet metal
fabrication in November 2011.

Building Size

204,000 sf total
112,000 sf renovated

New HVAC System and Equipment

- New outside air units (162 tons of cooling) and duct system
- 25 tons, (49,797 lbs.) of sheet metal duct fabricated and installed
- 11 existing rooftop units replaced
- 19 variable refrigerant systems installed
- 120 fan-coil units installed
- 4.5 miles (24,000 lf) of copper piping
- Significant upgrade of both electrical and building automation systems to support new HVAC system

Percentage of Work Self-Performed

100% of HVAC demolition work, installation of piping and equipment, sheet metal fabrication and installation activities.

Subcontracted: Electrical, Fire alarm, Insulation, Building Automation/Controls, Ceiling Replacement, Painting, Concrete Cutting, Cleanup, Temporary Protection, Roofing and Firestopping

Merit Subcontracting

Subcontractor selections were based on merit, along with quality of the firm, in lieu of the lowest bid.

Greer High School opened to students in Fall 1998. Unfortunately, by 2011, the original mechanical systems in the school were in need of replacement. Students, parents, teachers and school administrators, were not satisfied with the varying levels of temperature and humidity within the facility. Although the equipment was still operational, it was in poor physical condition. Given the relative newness of the facility, the local citizenry was understandably skeptical about the need for such expenditure. (See news article, Section 8). Following spirited public debate, in September 2011, Greenville County Schools awarded Waldrop the prime contract for HVAC renovations at Greer High School. The original contract value was just over \$6 million. The assignment encompassed a complete mechanical renovation of more than 50% of the building, including all of the classroom space and most of the office areas. The contract required that the HVAC renovation be completed prior to the start of the following school year. Set-up of temporary classrooms was not permitted. All of the work had to be completed without impacting operation of the school and the existing HVAC systems. Waldrop succeeded in meeting these criteria through a well-thought-out phasing plan, and carefully coordinated execution of the work. Keys to success were utilization of available flexible space; night and weekend work and a surge of resources applied in the final (summer break) phase. This final phase included demolition of existing systems, final installation, start-up and commissioning of all the new systems.

Waldrop self-performed the demolition of existing mechanical systems and installation of the new systems. This included the removal of 32 rooftop packaged units, 23 split-system heat pumps and 37 through-wall packaged fan coils. All of this was replaced with 120 new highly efficient variable refrigerant fan coils connected by 4.5 miles of copper refrigerant piping which was joined with a new pressure fitting Reflok® product. Outside air was delivered to the space by installing equipment and associated ductwork consisting of seven new 100% outside air rooftop units. Each classroom received at least one new fan coil unit and a ducted outside air supply and return grill. Additionally, 11 existing rooftop units, which were at the end of their expected useful life, were replaced with new equipment.