



Comprehensive HVAC Project at Longwood University

Complete HVAC system replacement at Willett Hall brings energy efficiency and air comfort to Longwood University



Project Description

The HVAC system at Willett Hall, Longwood University's athletic building, hadn't been upgraded in 40 years. The system wasn't performing well, and students and faculty were complaining. Additionally, Longwood sought to improve energy efficiency along with air quality throughout the building.

The project included the following elements:

- Replaced two existing RTU units, requiring a 550 ton crane
- Fabricated and installed the steel structure to support the RTU's
- Replaced 7 air handler units, all of which contained heating and cooling elements
- Installed 33 VAV air terminal units
- Replaced 3,000 linear feet of miscellaneous piping of various sizes
- Installed new hot water pumps and piping, new condensate piping, and new steam stations
- Replaced 1,000 linear feet of duct work



Unique Project Challenges

- 1 The project occurred during regular class schedules, which presented challenges to getting the project done on time without risk of accidents. Getting the roof top units placed onto the roof was a logistical challenge because it required scheduling and conducting crane work during normal day-to-day class schedules. Significant safety measures were taken to protect students, faculty and visitors to that area of the campus.
- 2 Installing the 7 air-handling units inside the building required a unique solution. Waco personnel had to remove existing louvers on the exterior of the building to fit the units through the exterior wall and set in place.
- 3 Integrating new automated control systems on the new equipment with those on the existing equipment proved complex. Precise engineering and scheduling were important to insure that no interruptions occurred to ongoing operations while the replacement project was in process.

Project Scale

- Approx. 6,000 man hours required to complete project
- Entire project spanned a 6-month period of time
- Each of the 7 new air handling units were 6 ft. x 4 ft. x 10 ft.

Why Waco was chosen – reputation, experience

Several companies competed for this project. Due to previous projects at Longwood, Waco had developed a reputation of quality and dependability, and this played a key factor in the final award of the contract. Waco was also the general contractor on this project and had the responsibility to make sure all subcontractors coordinated their work and met the schedule. Proper management of the subcontractors was critical to Waco's success.

Summary of Results

Russ Ricketts was the Project Manager and his many years of experience helped to complete all phases of the project ahead of schedule. There were minimal change orders and no safety incidents. In the end, Waco transformed a system that everyone complained about into a high efficiency system that provided a comfortable environment for all who occupied the building.

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