

HUMINT GENERAL INSTRUCTIONAL BUILDING

Ft. Huachuca, Arizona

Adams designed the mechanical, plumbing, and fire suppression systems and commissioning and energy modeling for this 60, 000 sq. ft. one-story building that included two large variable air volume air handling systems with return fans and outside air economizers. The chilled water system was a primary variable flow system. The HUMINT facility was designed to incorporate stringent U.S. Army Corps of Engineers guidelines for fire suppression systems, including the military's Unified Facilities Criteria document 3-600-01. Wet-pipe fire sprinkler systems were designed to a 3,000 sq. ft. minimum operating area and incorporated all aspects of seismic design for suppression systems as outlined by the American Society of Civil Engineers (ASCE 7). The firm also performed the energy modeling for this building, and documented the mechanical and plumbing related LEED credits. HUMINT was designed to be LEED Silver certified.

The building required to be air conditioned with a 4-pipe chilled and heating water system serving variable air volume (VAV) air handling units. The existing chilled water system consisted of a nominal 185-ton high efficiency variable flow air cooled rotary screw chiller. Primary and standby circulating pumps, expansion tanks, air separators and pot feeders needed to be installed to provide a complete 4-pipe chilled and heating water system. Underground chilled water piping from the chiller to the air handler room required pre-insulated piping.

Mik was the mechanical engineer for this project. Dave was the Commissioning Provider for this project.

*Image Credit: Adams and Associates Engineers, PLLC



HUMINT inspection report included infrared camera images notating the "dripping" warm pattern indicating air leakage

PROJECT ATTRIBUTES

- Size: 60,000 sq. ft.
- Services: Mechanical, Plumbing, Fire Protection, LEED, Energy Modeling and Commissioning
- Current Phase: Construction completed in 2010
- Design Dates: 2008 – 2009
- Client: U.S. Army Corp of Engineers / Sletten Construction
- System: 4-Pipe chilled and heating water system servicing variable-air-volume (VAV) air handling units
- Total Cost of Project: estimated at \$18M

CONTACT US

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