



Pickett, Kelm & Associates, Inc.
Consulting Structural Engineers

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St. Edwards Satellite Chiller Plant

PROJECT LOCATION: AUSTIN, TEXAS

OWNER: ST. EDWARD'S UNIVERSITY

CIVIL ENGINEER: EEA

PROJECT COMPLETED: 2008

PROJECT DESCRIPTION:

Pickett, Kelm & Associates, Inc. provided structural engineering design of this chilled water plant addition on the St. Edward's University campus in Austin, Texas. The project includes a 1500 square feet office and storage area, a 4900 square foot pump and chiller area, and a 5000 square foot open equipment yard for cooling towers.

The building consists of load-bearing concrete tilt-up wall panels supported by perimeter grade beams and straight sided drilled shafts.

The office area roof is supported by steel beams and girders with a metal deck. A decorative cantilevered steel canopy, punched window openings and a roof access hatch were provided.

The pump and chiller room has a clear height of approximately 22 feet. A metal deck and a concrete slab were provided at the roof, supported by a combination of steel beams and girders, with perimeter tilt-wall panels and an interior steel column. Large overhead water lines were supported from the underside of the structure. Equipment pads were provided at pump and chiller locations.

The equipment yard is screened using a combination of 10-foot high cast-in-place concrete retaining walls and 15-foot high concrete tilt-up panels. The cooling tower is supported on a frame of wide flanged steel beam frames, with concrete columns and drilled pier foundations. An overhead T-shape pipe rack, consisting of galvanized steel beams and columns on drilled shaft foundations, was provided. The project included provisions for additional cooling towers, pumps, chillers, and the extension of the pipe rack.

