

MECHANICAL, ELECTRICAL, AND PLUMBING SERVICES



FORT HOOD/CENTRAL TEXAS COLLEGE CLASSROOM BUILDING

CENTRAL TEXAS COLLEGE

FNI designed the first ever LEED-certified building (LEED Silver) commissioned by Central Texas College and located at Fort Hood. Sustainable MEP highlights include an energy efficient HVAC system, high-efficiency low-flow plumbing fixtures, and energy efficient lighting systems and controls.

FREESE AND NICHOLS' MECHANICAL, ELECTRICAL AND PLUMBING (MEP) team serves a variety of markets, including higher education, industrial, municipal, military, water districts and river authorities, aviation, private, and transportation. We are a one-stop solution for your MEP projects.

Freese and Nichols uses the latest technologies to implement long-term solutions, identify ways to reduce costs,

and enhance the efficiency and productivity of a project.

In addition to traditional software tools, we integrate Building Information Modeling (BIM) into the design process. BIM creates a dynamic link between the projects' designers, contractors and owners. Data is easily transferred to a variety of analysis programs, including structural analysis, lighting analysis, HVAC load analysis, energy analysis and cost estimating.



CENTRAL WASTEWATER TREATMENT PLANT MAINTENANCE BUILDING, CITY OF DALLAS WATER UTILITIES
 FNI provided MEP, site civil and landscape design services for Dallas Water Utilities' LEED-certified maintenance building. FNI also provided construction oversight for the project in conjunction with our work at the treatment plant.

COMPRESSED NATURAL GAS FACILITIES, ZEITENERGY: FNI provided design services including electrical design of site lighting for compressed natural gas (CNG) facilities located in Kansas and Arkansas.

R.D. ALEXANDER ADMINISTRATION CENTER TOWER II, ALCON LABORATORIES: FNI designed the MEP systems for an 187,000-square-foot, four-story office building for Alcon Laboratories.

SERVICES AND CAPABILITIES

MECHANICAL

- Heating, ventilation and air conditioning
- Indoor environmental quality
 - Temperature control
 - Humidity control
 - Pressurization
 - Filtration
- Thermal energy generation
- Thermal energy distribution
- Thermal storage
- Facilities automation
- Heat recovery
- Process cooling
- Industrial ventilation

ELECTRICAL

- Electrical assessments
- Primary electrical distribution
- Medium voltage distribution

- High voltage substations
- Emergency power generation
- Fire alarm
- Supervisory control and data acquisition (SCADA), instrumentation, measuring, monitoring and control
- Electrical equipment witness testing
- Motor witness testing
- Lighting
 - Interior and exterior
 - Roadway
 - Sports
 - Airfield
 - Parking lot
- Short circuit analyses
- Relay coordination studies
- Load flow analyses
- Motor starting studies

PLUMBING

- Domestic, laboratory and process
- Fire protection
- Pumping systems
- Fuel storage, distribution and dispensing
- Oil / water separation
- Medical / industrial gases
- Compressed air
- Vehicle / aircraft wash stations
- Irrigation / water management
- Turf irrigation
- Water quality ponds
- Alternative water sources
- Evapotranspiration-based controls
- Irrigation audits and evaluations
- Irrigation system master plans



Freese and Nichols delivers innovative solutions to clients across the country, providing engineering, architecture, environmental science, planning, energy, program management and construction services. A full service professional consulting firm, Freese and Nichols is the first engineering/architecture firm to receive the Malcolm Baldrige National Quality Award.

