Chris Hay, PE
Enprotec / Hibbs & Todd, Inc.

PROFESSIONAL EXPERIENCE

Mr. Hay has 14 years of experience with a particular focus on civil and municipal projects. His experience includes planning, design and project management in the areas of water distribution and transmission, wastewater collection and conveyance, roadway and drainage improvements and various park and recreational improvements including multi-purpose trails. He has worked with various funding agencies on different projects including the Texas Water Development Board, Texas Department of Agriculture, Texas Parks and Wildlife Department and United States Department of Agriculture.

PROJECT EXPERIENCE

- **City of Granbury Project Experience**
  2015 Lift Station #4 Emergency Replacement Project
  2015 Travis Street Bridge Utility Support Project
  2016 Hewlett Park Hike & Bike Trail Extension
  2017 TWDB DWSRF Water System Improvements Project
  2018 CDBG Lift STation #1 Improvements Project
  2018 Water and Wastewater Capital Improvements Plan
  Street Improvements Projects (2015, 2017/2019, 2020/2021)
  Water Distribution System Hydraulic Model
  Wastewater Collection System Hydraulic Model
  Current - Phase I Wastewater System Improvements (Collection System)

- **Stoneview Lift Station, City of Glen Rose:** Mr. Hay provided planning, design, and project management for the installation of a new lift station to serve a portion of the City which previously did not have sewer service. The project included construction of approximately 2,500 linear feet of 12-inch gravity sewer line and 2,500 linear feet of 8-inch force main, including an aerial creek crossing, in addition to the new lift station with submersible pumps.

- **Water System Improvements, City of Granbury:** Mr. Hay provided application support, project management, design and construction phase services for this water system improvement project funded through the Texas Water Development Board's (TWDB) Drinking Water State Revolving Fund (DWSRF) Program to implement improvements that account for the new 2.5 MGD water treatment plant (WTP), as well as the future WTP expansion. Project elements included: Scout Camp Pump Station and Distribution Improvements consisting of a new pump station, a PRV relocation and 21,400 linear feet of 16-inch water line; Hospital and Bridge Crossing Distribution System Improvements consisting of 10,400 linear feet of 20-inch water line; Lakewood Hills Distribution System Improvements consisting of 850 linear feet of 8-inch water line, a PRV and valve opening and closing; North Elevated Tank Distribution System Improvements consisting of 50 linear feet of 12-inch water line and valve improvements; and, Water Treatment Plant Distribution System Improvements consisting of 350 linear feet of 20-inch water line to replace an existing 8-inch water line in the area.

EDUCATION

Bachelor of Science, Civil Engineering, Texas A&M University, 2007

REGISTRATIONS

Registered Professional Engineer — Texas #111453, 2012

PROFESSIONAL/CIVIC ORGANIZATIONS

American Waterworks Association, Texas Branch

CERTIFICATIONS/EDUCATION

InfoSWMM Sewer System Modeling

H2OMap Water Distribution Modeling

H2OSurge Transient Modeling

Site Engineering and Land Development Software

eHT Leadership Development Program

PROFESSIONAL ENDEAVORS

Enprotec / Hibbs & Todd, Inc.
Associate Vice President
Granbury, Texas
2013 - present

Johnson and Pace, Inc.
Project Manager
Tyler, Texas
2012 - 2013

Adams Engineering
Land Development
Tyler, Texas
2007 - 2012

Enprotec | Hibbs & Todd

COG EXHIBIT 401

- **Port Ridglea East Sewer, Acton MUD:** Mr. Hay provided project management, design, surveying, construction management and bid phase assistance for the installation of approximately 8,350 linear feet of low pressure sewer main in the Port Ridglea East (PRE) Subdivision. The purpose of this project was to finish build-out of the low-pressure sewer system mains in the PRE Subdivision so that AMUD and Hood County could apply for a grant for first-time sewer service connections.

- **Grand Avenue Lift Station, City of Glen Rose:** Mr. Hay provided professional services to design and manage the replacement of the existing Grand Avenue Lift Station in a new location adjacent to Barnard Street, across the Paluxy River. The project included installation of gravity sewer and force main associated with the relocation of the lift station.

- **Lift Station #1 Improvements, City of Granbury:** Mr. Hay provided professional services to design and manage the rehabilitation and retrofit of an existing sewage lift station, including removal of existing equipment, installation of new submersible sewage pumps and control panel, guide rail assemblies, level control system, valve vault, wet well modifications with coating system, electrical, site piping and by-pass pumping. The project utilized funds from the Texas Department of Agriculture Community Development Block Grant Program.

- **Water Meter Replacement, City of Granbury:** Mr. Hay provided project management and design to replace all water meters varying in size from ¾-inch up to 5-inches for a total of approximately 5,700 meters. Based on the Texas Water Development Board's (TWDB) 2013 Water Loss Audit Report, there were a total of over 30 million gallons of water loss attributed to customer meter accuracy loss. Previously, the City's meters were read visually and consisted of single-jet cold water velocity or "register" meters. The combination of age and the need to visually inspect the meters to determine readings was very inefficient from both a labor and water loss perspective. Several thousand of the meters were 10 years old and older. An Advanced Metering Infrastructure (AMI) system with a customer interface was chosen by the City including the installation of approximately 5,500 residential and commercial water meters.

- **Lift Station #4 Emergency Replacement, City of Granbury:** Due to severe flooding in the City of Granbury and across the State of Texas in 2016, a 7-foot-diameter corrugated metal drainage pipe suffered catastrophic failure under lift station number four during the heavy rainfall event. The failure resulted in the wash-out of the retaining wall and surrounding soils under the lift station, three gravity sewer lines, a force main and a water line. The City issued a 7-day emergency declaration and hired eHT to assess the project and provide design consultation. The project included lift station replacement, gravity sewer lines, force main, water line, replacement of the drainage structure, retaining wall, backfill and surface mitigation.

- **Moments in Time Hike and Bike Trail, City of Granbury:** Mr. Hay provided planning and design of an 8-foot-wide concrete trail traversing 2.17 miles from the Granbury Regional Airport to Shanley Park, north of the historic downtown square. Along the trail, nine plaques are displayed and dedicated to various historical people, places and attributes of the City of Granbury.

PROFESSIONAL ENDEAVORS (CONT.)

TCB (AECOM)
EIT, Public Works
San Antonio, Texas
2007