

# Beltway 8 Ship Channel Bridge



## Background

Originally budgeted at \$962 million, the Ship Channel Bridge Program is the biggest infrastructure project Harris County has ever undertaken. It includes the replacement of a single two-lane bridge with twin four-lane north and south bridges over the Houston Ship Channel. The project crosses the Sam Houston Tollway (Beltway 8 East) from Texas State Highway 225 to Interstate Highway 10.

## Challenge

At just more than one mile long, the south approach is the longest on the Ship Channel Bridge, and its scope of work is very complex. Underground utility lines, previously contaminated soil and over 40 support bents complicated design and execution.

## Solution

CivilTech, a Woolpert Company, is providing construction engineering and inspection services and construction oversight to support the Ship Channel Bridge Program. Since project initiation in 2018, CivilTech has provided a resident engineer and inspection staff who report to HCTRA.

CivilTech coordinates daily with personnel of nearby onshore industrial facilities to eliminate any potentially dangerous conflicts. The engineer-led inspection team (ELIT) manages the progress of assigned construction tasks, coordinates inspection and materials testing personnel, and manages project schedules. Additionally, the CivilTech team is responsible for monitoring contractor workmanship and material use. CivilTech also reviews plans and specifications in advance of various work operations.

CivilTech was charged with monitoring established control and daily operations for compliance with plans, specifications and Texas Manual on Uniform Traffic Control Devices requirements. The firm also manages and directs daily inspection crews and assures inspectors properly document all daily construction activities, photos, weather conditions, time charges, measurements and calculations, and contractor resources.

## CLIENT

Harris County Toll Road Authority (HCTRA)

## LOCATION

Houston, TX

## CHALLENGE

Support the replacement of two-lane bridge with dual four-lane bridges

## SOLUTION

- Provide resident engineer and inspection staff
- Coordinate with HCTRA and contractors

## SERVICES

- Construction engineering and inspection
- Construction oversight

