

Reconstruction of Rose Hill Avenue Bridge Danbury, CT

Project Description:

AI Engineers, Inc. (AI) was selected for the condition inspection of this structurally inadequate bridge and to develop rehabilitation options for the City of Danbury. During the inspection, it was discovered that a section of the abutment had collapsed and one girder was unsupported. AI prepared an emergency repair plan, obtained a contractor, and then supervised the repairs. We recommended that the entire bridge be replaced along with an undersized sanitary sewer.

A hydraulic analysis indicated that the profile of the roadway required to be raised, to increase the bridge hydraulic opening to accommodate the 100 year flood. The assignment included performing the project field topographic survey and preparing the construction easement maps.

The replacement bridge superstructure which consisted of adjacent 24' deep prestressed deck units over new reinforced concrete abutments and wingwalls. A section of the 12" diameter sewer was designed for relocation, including service connections, removal and replacement of existing manholes, and new manholes added at all changes in direction or grade of sewer pipe.

Work included preparing contract documents and construction cost estimating for the bridge, approximately 1,000 ft. of roadway, 1,000 ft. of undersized sanitary sewer, a section of the water main, and the coordination of the underground and overhead electric and telephone services, gas main and cable service.

The scope of work included detour plans, MPT, assessing environmental contaminants in soils located directly adjacent to Rose Hill Avenue Bridge over the Still River. Permitting was extensive, including a general permit for discharge of construction ground water to the sanitary sewer authority, local wetland commission and CT DEP. We attended public hearings for local wetland permit and CT DEP Flood Management Artifacts.

Location

Danbury, CT

Owner

City of Danbury

Duration

2008-2010



Salient Features

- Sanitary Sewer, Drainage System & Water Main Design
- Survey
- Bridge Design
- Right-Of-Way
- Staging Plans
- Trench Shoring
- Environmental Sampling For Hazardous Materials
- Maintenance And Protection Of Traffic
- Hydraulic Analysis
- Permitting
- Utility Coordination