RIZZO Associates (RIZZO) was retained by the First Taxing District, City of Norwalk, Connecticut, to prepare the Analysis, Design, and Construction Documents for the necessary improvements to the Browns Reservoir Dam a class “C” High-hazard Dam. The Dam was built between 1908 and 1910, to impound the Browns Reservoir as a drinking water supply for the City of Norwalk, Connecticut. It is located in southeastern New York, adjacent to the Connecticut state line in the Town of Lewisboro, Westchester County. Browns Reservoir is formed by the east and west branches of the Silvermine River. The main features of Browns Reservoir Dam are the north and south earthen embankments, the stepped concrete masonry broad-crested weir Spillway, and the low level outlet pipes running through the base of the Dam.

The Dam’s earthen embankments have a maximum height of 45 feet, a length of about 1,200 feet, crest width of about 14 feet, a concrete core wall, riprap protected upstream slopes of 2H:1V and downstream slopes of 1.5H:1.0V overgrown with trees and brush. The low-level outlet includes an upstream stone masonry intake head wall, a gate house structure extending 50 feet through the Dam from the crest, two cast iron outlet pipes (30 and 16 inches in diameter), and a valve chamber at the downstream end. The concrete spillway is 226-feet-long and has five concrete tiers or steps on the downstream side to form the drop structure.

As part of the design process, RIZZO performed the following Tasks:

- Prepared stability analyses for the earthen embankments and concrete spillway to determine remedial measures needed to meet NYSDEC criteria;
- Prepared a design report, design calculations, and construction documents for the necessary improvements to the dam;
- Prepared, submit, and coordinated construction permit applications to the NYSDEC, United States Army Corps of Engineers (USACE), and the Town of Lewisboro;
- Developed construction cost estimate for the remedial design;
- Provided engineering support during construction.
- As-built drawings will be provided once permit list items are resolved.
- Updated the Emergency Action Plan (EAP) and inundation maps; and
- Prepared an Inspection and Maintenance (I&M) Plan.