Church Street South Extension Bridge

New Haven, Connecticut

As an adjacent neighbor of the I-95 New Haven harbor crossing MCGA project, the construction of a new Church Street South extension bridge over the New Haven interlocking and rail yard was required. To minimize the disruption to train service and eliminate the difficulty of building a bridge over active rail lines, the Connecticut DOT specified that the 320-foot long, 850 ton truss be placed in a single night's operation. The world's largest mobile crane was used to lift the truss into position.

Hot-dip galvanizing was the preferred corrosion protection system over metallizing because it was competitive on an initial cost basis, was durable enough to withstand the rough treatment during assembly of the truss on the ground next to the bridge site, and would minimize future maintenance in the very restricted access area over the train yard. Also of concern to the Connecticut DOT was maintaining a zinc coating thickness of six mils or less on the high-silicon steel in order to minimize overall truss weight and to deliver faying surfaces as specified in the truss design. The galvanizer satisfied both concerns by blast-cleaning the black steel surface, resulting in a controlled zinc coating thickness. It then masked the faying surfaces with a paint primer. Unique to this project was that no progressive dipping of the 80-foot-long components was allowed.

The galvanizer met this requirement, delivering a beautiful, hot-dip galvanized truss bridge that the citizens can be proud of for generations.

Specifier:
Connecticut Department of Transportation
Newington, CT

Engineer:
Parsons Brinckerhoff Quade & Douglas
Glastonbury, CT