

## ConnDOT Load Rating Statewide, CT

### Project Description:

#### Location

Statewide, CT

#### Owner

ConnDOT

#### Duration

2005 - 2010

The Connecticut Department of Transportation selected our firm for the second time in a row in 2006 to perform NBIS Biennial Bridge Inspection and Load rating. The Load rating project involved 69 bridges. The bridges included Class I (simple), Class II (moderately complex) and Class III (complex) bridges.

The bridges in the load rating assignment have included steel multi girders, two main girders with floor beam/stringer system, trusses including deck truss system bridges, prestressed concrete multi girder bridges (adjacent deck units, box girder bridges, I girders), multi span concrete arches and curved steel box girders. A variety of software was used to analyze the different type of bridges. STAAD.Pro, BAR7 and PS3 were used to model and analyze a majority of the bridges in the assignment. MDX software was utilized to analyze and rate the steel curved box girder bridges. Some support programs like Mathcad and Excel spread sheets are being used in the assignment.

During the course of the assignment, we discovered that some of the bridges did not have plans. Those bridges required special attention and field inspection to determine the geometric data of the bridge and sizes of the concrete members. Also specialty work was assigned to a testing lab company to determine the size and location of the reinforcement in the concrete members. The steel bridges will need an in-depth inspection with emphasis on needed information for load rating and identifying and documenting the sizes of the structural members and locating and measuring any section loss. The load rating analysis work is according to AASHTO specification and Connecticut load rating guidelines.



### Salient Features

- NBIS Inspection Guidelines
- Gusset Plate Load Rating
- Special Inspections
- Structure Condition Survey
- AASHTO Specification