**Project Title:** C-06-13: Load and Resistance Factor Rating (LRFR) in NYS

**PIN:**

**Responsible Unit:** Engineering Division, Office of Structures

**Project Manager:** McCaffrey, Brian

**Project Goal:**
Review NYSDOT bridge load rating, posting, and permit policies in light of the new Load and Resistance Factor Rating methods mandated by FHWA and, as needed, develop a systematic program to update existing data, procedures, and policies.

**Actions Proposed:**
1) Review relevant practice, other State agency research findings, physical test results, and other information related to LRFR evaluation and report findings.

2) Develop a load posting methodology consistent with the new LRFR specifications based on the HL93 vehicle or similar live load envelope vehicle that is no less conservative than the effects of the HL93 vehicle. This task shall also include methodologies on determining structures Safe Load Capacity (SLC). SLC is defined as a load rating value that corresponds to an acceptable stress level from actual traffic loads. Load posting is required if the SLC for a given span is less than the equivalent H rating of a legal load according to current Department policy. In general, the SLC shall never exceed the Operating Rating.

3) Develop a new ‘R’ posting policy. R-Postings are intended to keep most overloads from using bridges that, through design or deterioration, do not have the reserve capacity to accommodate most overload vehicles, but are still capable of safely carrying legal loads. These bridges have signage stating “No Trucks with R Permits.”

4) Evaluate the applicability of the new LRFR specifications for overweight vehicle permit review. Currently, the Department does not evaluate every bridge for the effects of overweight permit vehicles. An equivalent HS load effect is used for various span lengths and a reduction factor is applied for non-standard gage vehicles.

**Anticipated Work Products and Accomplishments:**
1. A systematic program to update existing data, procedures, and policies; 2. Draft procedures and policies, to meet new standards, for implementation by the Department

**Proposed Budget:** $250,000