

Who We Are

The North Atlantic Division's Regional Center of Expertise for Bridge Inspection and Evaluation provides the professional engineering expertise to conduct bridge inspections as necessary to ensure the continued safety of our public and project bridge inventory.

The Philadelphia District owns and maintains five high-level bridges and six short span bridges. The Bridge team is responsible for inspection, maintenance and repair of these bridges, most of which were constructed from the 1940s through the 1990s. The team inspects at least one in-house high-level bridge each Fiscal Year.



The Philadelphia District team has provided technical support since 1999, including the inspection of over 150 bridges and the structural evaluations (load rating or other analyses) of several more.

Customers have included USACE divisions and military installations.



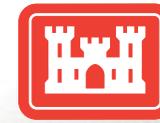
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www.nad.usace.army.mil/About/Regional-CentersofExpertise/BridgeInspection.aspx



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Bridge Inspection and Evaluation Regional Center of Expertise



Typical Inspection/Evaluation

The typical inspection begins with a review of the bridge history as well as prior reports and to identify pre-existing condition and define scope. A project management plan is developed to define the inspection procedure and determine team members, safety requirements, equipment and quality control needs.

The approach roadway, deck, superstructure, substructure, and channel are then inspected and evaluated both visually and with hand tools. Fracture critical members are inspected hands-on, full length. The thickness measurements of questionable steel members are recorded with ultrasonic thickness gauges.

A scope of work is then developed for any necessary underwater inspections. Then, a report is prepared and all data is recorded in Corps of Engineers Bridge Inventory System. Typical data includes: structural inventory and appraisal, commonly recognized element data, critical inspection data for all components, recommendations for future action, cost estimate for recommended repairs, inspection drawings and photographs.

Finally, an Independent Technical Review is conducted. If structural evaluation/repair is necessary, the team is qualified and capable to perform these tasks after inspection.

What We Do

Our expertise includes:

- Fully capable and certified for bridge inspection and evaluation of short span and high level complex bridges
- Twelve qualified inspectors – Successful Completion of 80-hour National Bridge Inspection Standards (NBIS) Safety Inspection course
- Inspectors trained in fatigue and fracture, CEBIS management, scour evaluation, and load rating
- Twelve personnel certified as Society of Professional Rope Access Technicians (SPRAT) rope access technicians capable of accessing any area on a bridge structure.
- Familiar with USACE, Federal Highway Administration, American Association of State Highways and Transportation Officials, and NBIS regulations



- Access to structures is facilitated using special equipment, rigging, or rope access. Inspectors are certified to operate manlifts.
- The team owns a UB-62 under-bridge access vehicle and a man lift.
- Rental vehicles are utilized on remote projects.
- All inspectors are engineers with technical capabilities to evaluate strength of existing bridges and design necessary structural retrofits.

