

Innovation Exchange Webinar

Conversations Launching Change

Presented by the Federal Highway Administration (FHWA) Center for Local Aid Support

Expand Your Toolbox: Discover the NDE Techniques for Testing Material Integrity

Thursday, December 12, 2024 | 2:00-3:30 p.m. EST

During a routine inspection of an aging bridge, engineers discover visible cracks in the support beams, raising serious concerns about structural integrity. How can they assess the materials without causing further damage? The solution lies in Non-Destructive Evaluation (NDE) techniques. NDE is a technique used to assess the properties of materials and identify defects without damaging them. For inspectors, NDE is similar to how a doctor uses an X-ray to check for a broken bone instead of resorting to invasive surgery.

The structural integrity of infrastructure (ex: pavement, bridge components, retaining walls, etc.) requires testing to determine if internal deterioration is occurring. The Federal Highway Administration (FHWA), much like State Departments of Transportation and other owners of roadway features, houses state-of-the-art NDE equipment to support a strategic vision of durable infrastructure components that have predictable service life. Using NDE techniques allows inspectors to “take a peek” without demolishing the feature or further eroding its integrity. If the internal integrity of the material is deemed with deficits, owners will need to decide to replace, rehabilitate or remove in order to sustain safety and reliability of the roadway system.

Join the staff from FHWA, including the Office of Federal Lands Highway, and the U.S. Forest Service to learn more about the state-of-the-practice and the state-of-the-art for NDE techniques. The webinar will include speakers from the Turner Fairbank Highway Research Center as well as field staff with experience in NDE. Case studies and relevant experiences will be shared so you can determine which NDE technique fits your toolbox for testing material integrity.



Source: U.S. Forest Service



Learn from the engineers and designers who are using these new technique. For questions, contact [Karyn Vandervoort](#), FHWA National Program Manager, Innovation and Research or email CLAS@dot.gov.

The FHWA Center for Local Aid Support will provide a certificate of participation for this event. Simply select “yes” when prompted during registration.

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