

**SERVICES**

Durability Assessment  
Service Life Analysis  
Durability Testing

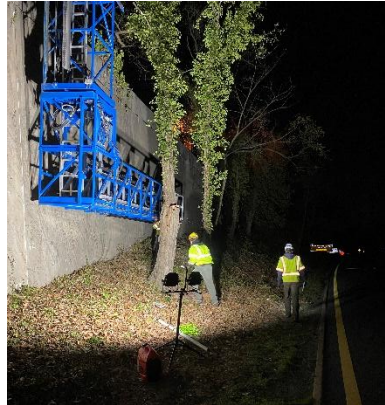
**KEY PERSONNEL**

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**REFERENCE**

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The Clara Barton Parkway is located in Glen Echo, MD, and falls under the jurisdiction of the National Park Service as part of the George Washington Memorial Parkway. The structure includes retaining walls that were constructed of reinforced concrete segments in 1959. Repairs were performed in 1993, which included removing and replacing unsound concrete and applying a layer of wire fabric-reinforced shotcrete. TCG was retained by Clark Nexsen to perform testing of the walls and estimate the remaining service life of both the shotcrete and base concrete portions.

Field and laboratory testing included ground penetrating radar scan, half-cell potential measurement, compressive strength, chloride profile, and petrographic analysis. The testing information was used as inputs into service life analysis to estimate the remaining service life of the walls. The analysis was performed using TCG's in-house model to be able to simulate existing chlorides within the system and two different layers with different transport properties, which commercially available models are not able to do.