

This bridge deck required extremely precise baseline detection and continued monitoring of surface cracks. Distinctions between shrinkage cracking and all other forms of cracking needed to be determined to evaluate the early performance of a novel overlay method.

Using our Deck Top Scanning System (DTSS), NEXCO captured infrared and HD visual data to detect any potential deficiencies present in the newly-built deck cover. The HD visual imagery was used to perform detailed individual crack width detection. The shape, width, and length of the cracks were recorded in the scaled imagery and reported in table form for the prime contractor's review.



Project Details

Client	[Engineering Firm in Virginia]
Surface Area	1 Bridge, 130,000ft ²
Project Period	12/2021

Impression

Instead of manually detecting and attempting to keep an accurate record of cracks with sketching, an HD line scan can record the as-is condition of a deck rapidly obtained. The imagery serves as a basis on which any party involved can actively see what is going on, especially using zooming web loaders (think Google Maps, but with the >2000dpi imagery loaded instead). We hope that this method can be implemented more widely to help engineering firms avoid the costly mistake of trying to keep track of cracking in impermanent and inaccessible forms.