High Definition Scanning

Case Study: Inspection of Highway Overpass I-Beam

PROJECT GOALS

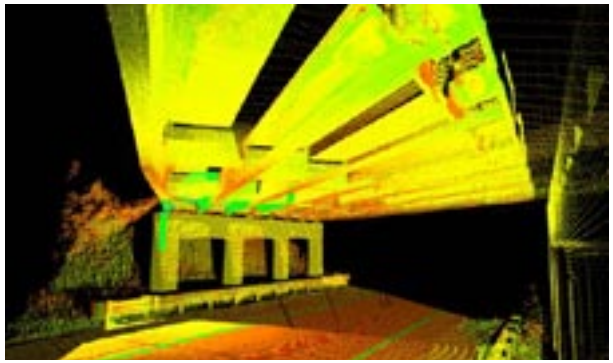
- Determine the amount of damage to the I-beam.
- Determine the distance from the bottom of the I-beam to the highway bed.

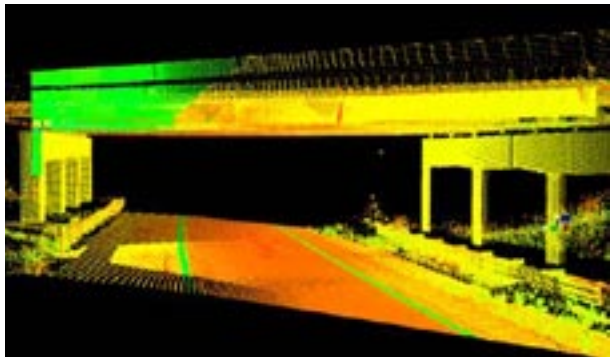
PROJECT FACTS

- Three hours of scan time.
- I-beam was deflected 0.79' at the point of impact.
- The distance from the bottom of I-beam to highway bed met requirements.

BENEFITS

- Highway travel lanes did **NOT** have to be shut down.
- Ability to map entire project site in 3 hours.
- Questions could be answered without having to return to the site.
- Improved safety when obtaining measurements.





The objective of this project for the Michigan Department of Transportation (MDOT) was to assess the damage that occurred to the I-beam on a highway overpass due to impact of an oversized tractor trailer.

By performing two ground level scans and one scan on the bridge deck, Nederveld was able to map the overall site. Even more significant was the collection of a tremendous amount of as-built data.

Once the scans were completed, the operator was able to determine the position of the I-beam, the amount of damage incurred by the I-beam after it was hit, and the amount of clearance to the highway bed. In addition, the operator had the flexibility to perform on-screen dimensional verification of the data that was being collected in the field.

The 3D laser scanner, with its breakthrough technology is providing Nederveld with a valuable tool for assisting with the inspection of highway projects. This exceptional technology is invaluable when capturing data on structures that are inaccessible or have complex, irregular geometries.

NEDERVELD

Always Ahead of the Curve!