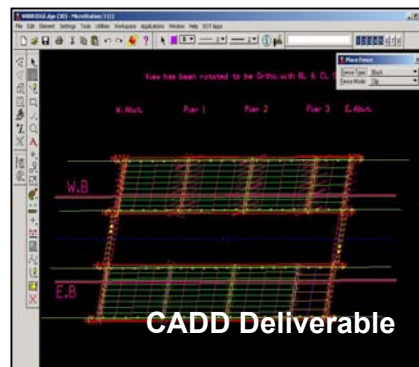
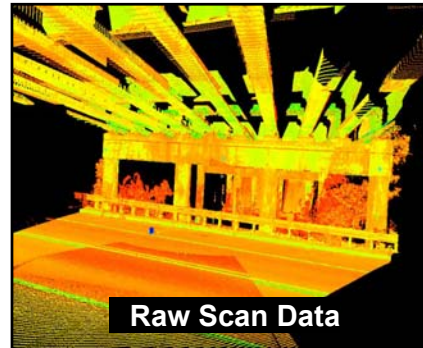


# I-78 Bridge

# GPI

3D Laser Scanning



**Client/Owner:** NJ Department of Transportation  
**Project Location:** I-78 over Musconetcong River

GPI applied its state of the art 3D Laser Scanning technology to provide as-built plans exceeding field survey accuracy to assist in the widening of a major bridge structure. The MicroStation CADD deliverables were produced in significantly less time and fee than would have been required by conventional methods. The raw data file was also delivered to the designer to be used as an aid to prevent future field “call-backs” as questions arise during the final design process. This will result in additional savings of time and fee as well as the ability to “double-check” items of question. The overall scanned data was also integrated with high accuracy control survey and precision mapping to provide the client and designer with a unique integrated as built.

GPI provided the as-built survey data as part of a weigh station project of two bridge structures, along the east and west bound lanes on I-78, in Bloomsbury, New Jersey. A targeting system integrated the 3D Laser Scanner data with photogrammetric mapping, and created raw data scans for all bridge surfaces. Multiple overlapping raw data scans were then created providing complete 3D data. The directions and locations of these scans were determined by GPI’s scanner technicians based on experience gathered from previous bridge as-built 3D Laser Scanning projects. CADD data was then created from the raw data scans to generate 3D MicroStation DGN files. The DGN files were then submitted to the New Jersey Department of Transportation for use as part of the lane widening and bridge design phase of the project.