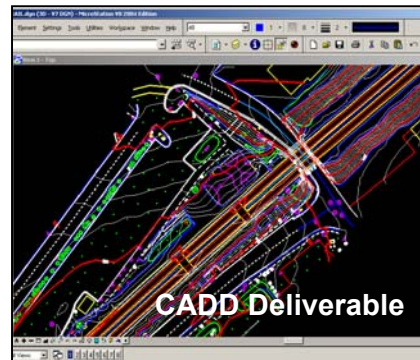
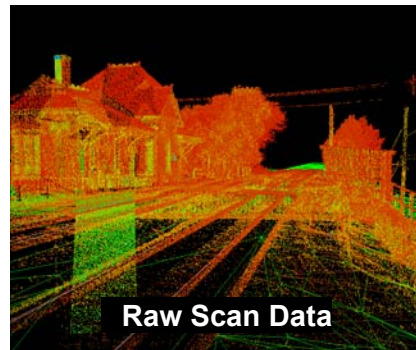


## Laurel MARC Station



**Client/Owner:** MD Mass Transit Administration

**Project Location:** Laurel, Maryland

GPI was contracted to provide survey information for 1,200' of Marc Railroad including the platform areas and surrounding station topography. The purpose of the survey was to have accurate drawings showing the elevations of the tops of rails to determine clearances for the potential design and re-construction of a traffic bridge adjacent to the station. To access the rails for conventional survey would have required a permit, which could take six to eight weeks to process.

Through use of its state of the art 3D Laser Scanner technology, GPI provided as-built plans within the rail areas and along the platforms, without physical access to the right of way. This eliminated the need for access permits and reduced project time and cost significantly. The resulting data file was archived for future use to prevent costly and time consuming call-backs in the event future survey or mapping data is needed. High accuracy conventional survey control, was obtained outside the rail right of way. This control was acquired to assure both accuracy and timeliness of the delivery of the final product.

The survey was completed without causing train or station interruptions and did not require the use of flag persons. All data was collected outside the track areas. GPI used 3D Laser Scanning and scanned the rails providing raw data scans which ranged from 100'-200' linear at a time. The raw scan data was registered to Maryland State Plane Coordinates using GPS and conventional survey techniques. Following the integration and processing of the data collected the final deliverable consisting of a MicroStation DGN and InRoads DTM surface model which was created depicting the tops of rails with spot elevations at intervals along the length of the project. The deliverable DGN file also included the topography for the area surrounding the station and included detail at 2 existing bridge locations.

Completion Date: 2006