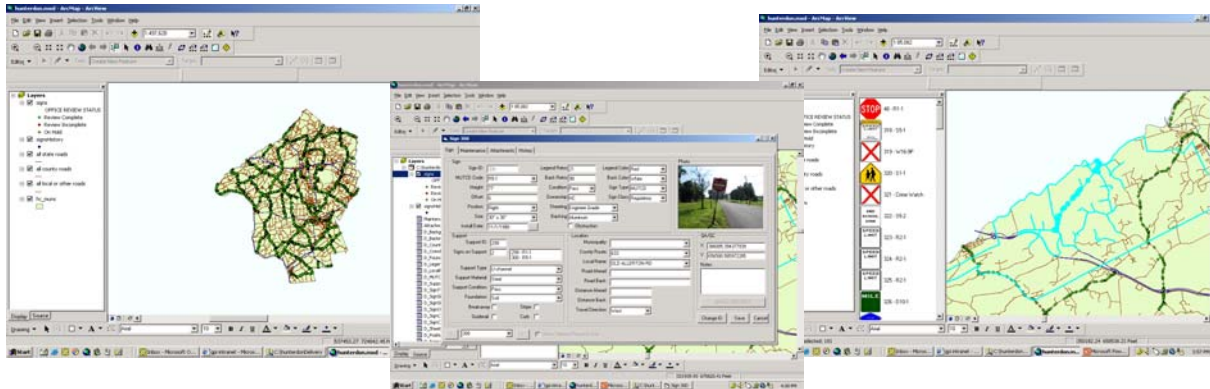


Hunterdon County Transportation Asset Management System



Client/Owner: Hunterdon County Engineering Department
Project Location: Flemington, Hunterdon County, NJ

GPI implemented a Transportation Asset Management System for Hunterdon County consisting of a Sign, Shade Tree and Stormwater Management System, and an accompanying digital roadway videolog. This system will aid the County in prioritizing the replacement and repair of sub-standard signage and damaged trees along County roadways and meet the federally mandated requirements of the National Pollution Discharge Elimination System (NPDES).

GPI provided an inventory of 10,000 warning, regulatory and guide signs; 450 shade trees and 275 miles of roadway images for the videolog. GPI created a customized ESRI ArcGIS-based Sign, Shade Tree, Stormwater and Videolog Management System that is being used to display, query and report upon the County's signs, shade trees, and drainage structures.. The System is also being used for predictive maintenance and budget modeling. The inventory work included collecting sign and panel data related to the MUTCD sign designation, retroreflectivity, sign sheeting, GPS and roadway location, dimensions, sign type and material, support type and material, and other pertinent sign information. A digital image of each sign assembly was collected. A uniquely numbered weather resistant bar code label was affixed to the back of each sign panel when inventoried. Attributes collected for the trees included tree type, condition, size, GPS location, utility obstructions, and distance from the roadway. GPI also provided training and technical support to the County as part of this project.

GPI assisted the County in meeting the mandated requirements of the NPDES. Current NJDEP requirements have called for every entity in the state of New Jersey to comply with certain stormwater management regulations. One of these regulations is to possess a current inventory of all inlets and outfalls that are part of the entity's stormwater drainage infrastructure. GPI inventoried these drainage structures along Hunterdon County roadways for the Hunterdon County Engineering Department. These features are accessed through the implemented GIS based Management System.

The Transportation Asset Management System's interface was developed with ArcObjects, ArcPad and ArcSDE. The purpose of the system is to allow multiple users to access sign, tree, and stormwater data through a desktop ArcGIS Application. The management system allows users to load field inventory and inspection data from handheld computers running ArcPad 6. The application also maintains a history of these asset and associated maintenance records.