The Illinois Department of Transportation (IDOT) has responsibility for planning, construction and maintenance of Illinois’ extensive transportation network, which encompasses, highways and bridges, airports, public transit, rail freight and rail passenger systems. The Division of Highways and its nine district offices are responsible for the design, construction, operation and maintenance of the state highway system.

IDOT has recently begun to employ LiDAR data to supplement traditional route surveys and to analyze delineations of flood easements, drainage areas, roadside ditches, and sizing of culverts (Figure 1). LiDAR data applications have allowed IDOT to generate highly-detailed digital elevation models and 1-foot contour lines (Fig. 2) and accurately reduce peak water storage requirements (Fig. 3) and water flow estimates in some cases. This has resulted in cost-saving measures to either reduce proposed culvert sizes or increasing water capacity to double, or even triple, former load rates for small existing culverts which have no history of significant flooding.
Illinois Height Modernization Program
crystal.isgs.uiuc.edu/nsdihome/webdocs/ilhmp/

ISGS Co-Principal Investigator
Sheena Beaverson
217-244-9306
sbeavers@illinois.edu

IDOT Co-Principal Investigator
Amy Eller
217-782-4748
amy.eller@illinois.gov

Illinois State Geological Survey -- www.isgs.illinois.edu
Illinois Natural Resources Geospatial Data Clearinghouse -- crystal.isgs.uiuc.edu/nsdihome/
Illinois Department of Transportation -- www.dot.state.il.us