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Application of GIS for a Managed Use Lane Study

Presenter

Feng Lu
Lead Planner/GIS Analyst
Parsons Brinckerhoff
lufe@pbworld.com

Co-Presenter

Managed Use Lane (MUL) is a concept that focuses on pricing, vehicle eligibility, and access control in order to proactively manage and operate traffic lanes, thereby improving the efficiency of existing highway networks. Since demand has rapidly outpaced infrastructure capacity within many metropolitan areas, MUL strategies have become an ideal solution.

New York State DOT is currently conducting a feasibility study to assess the implementation of MUL strategies on the National Highway System (NHS) in New York City and surrounding Nassau and Westchester counties. GIS is used to integrate and manage databases from various resources; it is employed as a tool to analyze and identify MUL corridors; and it is used to provide a visual presentation of analysis results.

In particular, the author explains the use of GIS in identifying high priority candidate corridors based on congestion, speed, safety, and transit demand criteria.