4.1.2   **Updating the Urban Boundary and Functional Classification of New Jersey Roadways using 2010 Census data**

Presenter   **Co-Presenter**

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The Federal-Aid Highway Act of 1973 required the use of functional highway classification to update and modify the Federal-Aid highway systems. This legislative requirement is still effective today. Accordingly, the functional classification system must be updated every ten years.

GIS was used to analyze the urban boundary and current functional classifications of New Jersey highways and revisions were made based on the changes occurring to the system since the previous update. These revisions called for edge-matching, topology, dynamic segmentation of best available Census data, roadway geometry and attributes, and base map datasets. A Straight Line Diagram (SLD) Data manager tool was developed to manage data and perform validation to verify data integrity and conformance to Federal Highway Administration (FHWA) guidelines for functional classification and federal aid systems. Interim and final GIS data and mapping materials were reviewed with each of New Jersey Metropolitan Planning Organizations (MPOs) for acceptance prior to New Jersey Department of Transportation (NJDOT) submission to FHWA.

MPO comments were tracked on a project SharePoint site and revisions to NJDOT's functional classification and federal aid event tables were incorporated into NJDOT's Straight Line Diagram (SLD) database for use with their SLD applications.

This presentation will cover key FHWA concepts and how NJDOT addressed these concepts to meet the objectives of the State and the stakeholder community. Attendees will also learn about solutions to some of the challenges encountered throughout the process.

Bio(s):
Mr. Locke has led a wide range of projects that involve automated data collection, LiDAR, linear referencing, and application development. Mr. Locke currently serves as the Supervisor of GIS mapping and analysis in Baker's Hamilton, NJ office.