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Supporting Bike Master Planning with ArcGIS Desktop

Presenter

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In support of the Maryland State Highway Administration's (SHA) goal to increase the number of miles of bicycle facilities by 2% annually, JMT Technology Group devised a methodology to identify roadways suitable for bicycle facilities and to place proposed bicycle facilities such as bike lanes, bike-related signs, and pavement markings along those roadways. JMT leveraged the ArcGIS desktop linear referencing tools to merge multiple source datasets into a single event table. The event table contains all of the attributes that determine whether a roadway segment is suitable for a bike facility such as traffic statistics and physical roadway characteristics. JMT developed a custom editing toolbar to assist in the visual inspection of aerial photography and pavement imagery to confirm the eligibility of roadway segments. Tools in the editing toolbar automate the placement of proposed locations of bicycle signs and markings along eligible roadways in accordance with SHA's bicycle design guidelines. JMT added functionality to SHA's existing web map application to share existing and proposed bicycle facility locations with stakeholders.

Across the nation, transportation agencies are looking to make communities more bicycle friendly. Attend this presentation to learn about the analysis methods and tools used by the Maryland SHA for bike master planning, understand how these tools could help your organization, and benefit from SHA's lessons learned.

Bio(s):

Niki Miller has 12 years of experience in the GIS industry and is a certified GIS Professional and Project Management Professional. She manages a variety of transportation and utilities GIS projects for the JMT Technology Group.