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Southeastern Transportation Research,
Innovation, Development and Education Center

2017 Project Abstract

Project Title: Improving Work Zone Planning, Designing, and Operations (Project J)

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ABSTRACT: This project consists of a series of tasks intended to yield results that will better inform transportation agencies in their planning, design, and operations of work zones. A selected set of freeway lane closure scenarios across a wide range of traffic volumes and vehicle mixes will be modeled using microscopic traffic simulation. The modeling effort will produce key measures of effectiveness such as travel time, delay, and queue lengths so that the impact of these common lane closure scenarios across a range of traffic conditions will be documented. Additionally, a range of lane merge configurations will also be examined. Data archives from previous research on freeway work zone mobility by some of the team members will be utilized to describe driver behaviors and extend freeway work zone modeling efforts. Driver behaviors and actions under a range of traffic conditions and roadway geometric configurations will be examined. Also, additional modeling needs identified during the study will be supported using an extensive traffic data archive from previous research.