UTC Project Information	
Project Title	MPC-569 – Traffic Performance Modeling and Planning of Emergency Medical Response in Rural Areas
University	Colorado State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, Research and Innovative Technology Administration $60,000 Colorado State University $60,000
Total Project Cost	$120,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	June 27, 2018 to July 31, 2022
Brief Description of Research Project	This study will conduct a probabilistic simulation of the traffic performance for emergency medical response in a typical rural region. This project will develop a basic framework to model EMS traffic performance in a typical traffic network in a rural region under several major hazardous events by considering infrastructure interdependency and uncertainties, which can help EMS planning, such as prioritizing the EMS traffic dispatch and strategic selection of location of EMS centers, etc. In the future, more people may be saved due to the more efficient and optimized EMS traffic planning strategy under different hazardous conditions.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The research outcome has been shared through publications and conferences.
Impacts/Benefits of Implementation (actual, not anticipated)	This project has offered new modeling techniques in terms of EMS planning and performance considering post-hazard disruptions. The new technique offers potential on being applied in future emergency response planning to save more lives.
Web Links • Reports • Project Website	• MPC Research Report – Traffic Resilience Modeling and Planning of Emergency Medical Response • Journal Article – Post-earthquake Resilience Assessment and Long-Term Restoration Prioritization of Transportation Network

	• Journal Article – Resilience Modeling of Traffic Network in Post-earthquake Emergency Medical Response Considering Interactions between Infrastructures, People, and Hazard