

<b>UTC Project Information</b>	
Project Title	MPC-641 – Design and Evaluate Coordinated Ramp Metering Strategies for Utah Freeways
University	University of Utah
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, Office of the Assistant Secretary for Research and Technology \$70,000  Utah Department of Transportation (\$40,000) University of Utah (\$60,000)
Total Project Cost	\$170,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	October 30, 2020 to July 31, 2022
Brief Description of Research Project	During the past decades, ramp metering (RM) control has been widely implemented in many states of the U.S., including Utah. In practice, it can reduce overall freeway congestion by managing the amount of traffic entering the freeway and by breaking up platoons that make it difficult to merge onto the freeway. RM controllers can be implemented as coordinated or uncoordinated systems. When operating an uncoordinated RM, the metering rate and on/off statuses will be determined by local traffic conditions. Uncoordinated RM strategies include fixed, local, and corridor-responsive systems. Despite the improvements to the operational efficiency of mainline flows, RM will inevitably create additional delays to the ramp flows. As traffic demand for a freeway facility increases, mitigating mainline congestion could go beyond the capability of uncoordinated RMs. Recognizing such limitations, the proposed research aims to assist the on-going and future efforts to deploy coordinated RM systems and evaluate the performance of deployed systems. The research can benefit the transportation community by helping 1) understand potential ramp delays to achieve a target mainline congestion level; 2) identify the locations that would benefit from coordinated RMs; and 3) evaluate the system performance from both operational and safety aspects.
Describe Implementation of Research Outcomes (or why not implemented)	
Place Any Photos Here	

Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none"><li>• Reports</li><li>• Project Website</li></ul>	