

UTC Project Information	
Project Title	MPC-661 – Environmentally Sustainable Accelerated Partial Bridge Deck Removal Methods
University	Utah State University
Principal Investigator	Andrew Sorensen, Ph.D. Shuna Ni, Ph.D.
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Funding Source(s) and Amounts Provided (by each agency or organization)	<p>USDOT, Office of the Assistant Secretary for Research and Technology \$80,000</p> <p>Utah LTAP \$80,000</p>
Total Project Cost	\$160,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	August 24, 2021 to July 31, 2024
Brief Description of Research Project	<p>Recently, significant advances have been made in the development of rapid setting cementitious materials for partial depth bridge deck repair. The rapid set times of these materials allow for traffic to be re-opened on to the bridge deck in a number of hours versus days once the material has been placed. While this is a substantial improvement in reducing the traffic closure time a large amount of time is still spent on the removal of damaged and degraded bridge deck concrete and in prepping the cutouts for placement of the rapid set material. Partial deck removal is a much more delicate process than full deck or pavement removal as the soundness of the concrete surrounding and below the cut out must be maintained. Additionally, some removal and preparation methods have more of an environmental impact than others. This projects seeks to study different techniques to accelerate the preparation process for partial depth replacement as well as evaluate the environmental sustainability of those techniques.</p>

<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>The implementation of this research will reduce lane closure times and improve the sustainability of partial depth concrete repair.</p>
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>The benefits of this project are reduced lane closure time and decreased environmental impact from partial depth concrete repair.</p>
<p>Web Links</p> <ul style="list-style-type: none"> • Reports • Project Website 	<ul style="list-style-type: none"> • MPC Final Report – Improved Sustainability and Efficiency of Partial-Depth Concrete Bridge Deck Repair