

UTC Project Information	
Project Title	MPC-611 – Field Performance of Asphalt Mixtures Based on Flexibility Index Results
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 \$30,000 Utah Department of Transportation \$40,000
Total Project Cost	\$70,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	February 18, 2020 to July 31, 2022
Brief Description of Research Project	This research will document the early performance of selected asphalt pavements in the state of Utah and correlate their performance to the Flexibility Index (FI) values obtained in the lab. Knowing the relation between FI and field performance will allow for the development of asphalt mixtures optimized for all environmental conditions. At the conclusion of this project, it will be possible to establish a limit on the FI to ensure adequate field performance of asphalt mixtures.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The implementation will require an initial evaluation of sections to develop a limit that can eliminate mixtures susceptible to cracking.
Impacts/Benefits of Implementation (actual, not anticipated)	A significant amount of funding is allocated by the transportation agencies to maintain the infrastructure. By being able to eliminate materials with potential poor performance, significant savings can be achieved.
Web Links <ul style="list-style-type: none"> • Reports • Project Website 	<ul style="list-style-type: none"> • MPC Research Report – Field Performance of Asphalt Mixtures Based on Flexibility Index Results • Journal Article – Physicochemical Characterization of Short and Long-Term Aged Asphalt Mixtures for Low-Temperature Performance • Technical Paper – Practicality of Driven Parameters of Semicircular Bending Test at Intermediate Temperature

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| | <ul style="list-style-type: none">• Research Article – Methods to Evaluate Intermediate Temperature Properties of Asphalt Mixtures by the Semi-circular Bending Test• Research Article – A Long-Term Field Study of the Ability to Predict Thermal Cracking of Asphalt Mixtures Tested by the Bending Beam Rheometer• UDOT Report – Balanced Asphalt Concrete Mix Performance in Utah, Phase V: Field Evaluation for Intermediate and Low-Temperature Cracking• UDOT Report – Balanced Asphalt Concrete Mix Performance in Utah, Phase IV: Cracking Indices for Asphalt Mixtures |
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