

UTC Project Information	
Project Title	MPC-640 – Testing of Field Cores to Determine Performance of Asphalt Mixture Performance Parameter
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 \$17,000 Utah Department of Transportation \$20,000
Total Project Cost	\$37,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	November 6, 2020 to July 31, 2022
Brief Description of Research Project	The objective of this research is to obtain field cores and test them to correlate the observed performance of the mixtures to the values obtained in the lab. Knowing the relation between lab tested field cores and field performance will allow for the development of asphalt mixtures optimized for all conditions. At the conclusion of this project, it will be possible to establish cracking parameter to ensure adequate field performance of asphalt mixtures at low and intermediate temperatures.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	Further studies are required to determine the limits of the test and better understand its variability
Impacts/Benefits of Implementation (actual, not anticipated)	Adoption of performance related tests will reduce the number of early failures observed in many pavements thus significantly reducing maintenance costs.
Web Links <ul style="list-style-type: none"> • Reports • Project Website 	<ul style="list-style-type: none"> • 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 • Research Article – Methods to Evaluate Intermediate Temperature Properties of Asphalt Mixtures by the Semi-circular Bending Test

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