UTC Project Information	
Project Title	Impact of Deicing Salts on Corrosion Rates of MSE Reinforcement
University	Texas Tech University
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Funding Source(s) and Amounts Provided (by each agency or organization)	SPTC: $63,322 Texas Tech University: $64,272
Total Project Cost	$127,594
Agency ID or Contract Number	DTRT13-G-UTC36 SPTC14.1-36
Start and End Dates	June 1, 2014 – May 31, 2016
Brief Description of Research Project	**PROBLEM**: The service life of mechanically stabilized earth (MSE) wall systems is estimated based on assumed rates of soil reinforcement corrosion that correspond to mild or moderate corrosive conditions in the soil backfill. The assumption is deemed valid when certain electrochemical properties of the soil backfill, namely electrical resistivity, pH, chloride and sulfate contents, are within specified limits. This approach relies on evaluation of the soil backfill in its initial condition but does not account for changes that may occur in the electrochemical properties of the soil backfill when it is exposed to deicing salts under service conditions. **PROPOSED SOLUTION**: This research will evaluate corrosion rates in steel MSE reinforcement and embedded MSE backfill materials under different levels of exposure to deicing chemicals. This will be accomplished by conducting a detailed laboratory test program that will include applicable material characterization tests and corrosion tests. The test program will examine a range of backfill materials. Special emphasis will be placed on

	coarse graded backfill recommended for use in high salt exposure environments.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • Reports • Project website	