

Title:	Evaluation of Corrosion Prevention and Mitigation Approaches Used On Texas Bridges
The Problem:	<p>Corrosion of steel has been causing millions of dollars of loss in infrastructure in Texas. Besides the use of corrosion-resistant reinforcement in structures and painting of steel elements, the use of weathering steel, metalizing on steel and concrete elements, and cathodic protection (sacrificial anode) have also been applied on TxDOT bridges.</p> <p>The performances of different approaches vary with different bridges in different geographic areas; i.e., cold, arid, and humid districts. It is imperative for TxDOT to have a decision tool to conduct effective corrosion prevention for new construction and corrosion mitigation for maintenance.</p>
Technical Objectives:	<p>The researchers shall address the following:</p> <ol style="list-style-type: none"> 1. Conduct a synthesis of worldwide field investigations of the performance of corrosion mitigation. 2. Perform field evaluations statewide to investigate the effectiveness of corrosion mitigation instrumented in the past. 3. Perform lab tests, as necessary, to verify findings and to obtain a better understanding of corrosion mitigation approaches. <p>The expectation of this project is that the end product will obtain a TRL level 5.</p>
Desired Deliverables:	<ol style="list-style-type: none"> 1. Technical memorandum for each task completed. 2. Monthly progress reports. 3. Value of Research (VoR) that includes both qualitative and economic benefits, to be included in the final research report. 4. Research report documenting the findings of the research, including appropriate and cost effective corrosion prevention approaches for new bridge construction and corrosion mitigation approaches for bridge maintenance. 5. Project Summary Report.
Proposal Requirements:	<ol style="list-style-type: none"> 1. Utilize the "Proj/Agre" and "PA_Form" templates located at the TxDOT RTI website. 2. Proposals will be considered non-responsive and will not be accepted for technical evaluation if they are not received by the deadline or do not meet the requirements stated in RTI's University Handbook, which is also located at the RTI website. 3. Proposals should be submitted in PDF format, 1 PDF file per proposal. File name should include project name and university abbreviation. 4. This project will be tracked during the life of the project using a Technology Readiness Level (TRL) scale. For more information about the use of a TRL, click.