



# Research Project Statement 24-031 FY 2024 Annual Program

<b>Title:</b>	Develop an Analysis Method for Identifying Candidate Pavement Safety Improvement Projects
<b>The Problem:</b>	<p>Safety-related pavement condition data are collected annually for TxDOT's roadway network through the automated/semi-automated pavement condition survey. Additionally, skid resistance data are collected using in-house resources. These data are available in TxDOT's pavement management system. To reduce the risk of traffic crashes and fatalities on public roads, there is a need to develop a method for analyzing safety-related pavement condition data to identify and design candidate pavement safety projects, including cross-slope improvement projects and flushing treatment projects.</p> <p>Currently, there is no comprehensive method for analyzing safety-related pavement condition data to inform project selection and design processes. The primary objective of this project is to develop a proactive method to aid in selecting and designing optimal pavement safety improvement projects.</p>
<b>Technical Objectives:</b>	<p>This project will reduce the risk of traffic incidents by aiding TxDOT districts in identifying and designing optimal pavement safety improvement projects. To meet the project objectives, the research team shall:</p> <ul style="list-style-type: none"> <li>• Mine safety-related pavement data for TxDOT's roadway network.</li> <li>• Develop a proactive method for assessing pavement safety risks and identifying or designing candidate pavement safety improvement projects.</li> </ul> <p>The expected technology readiness level (TRL) for this project is 8.</p>
<b>Anticipated Deliverables:</b>	<ol style="list-style-type: none"> <li>1. Technical memorandum for each task completed.</li> <li>2. Monthly progress reports.</li> <li>3. Value of Research (VoR) that includes both qualitative and economic benefits, to be included in the final research report. This is not a stand-alone deliverable.</li> <li>4. Research report documenting the findings of this research, including methods and tools that will be developed as part of this project, and a demonstration of the application of the methods at the network level.</li> <li>5. Project Summary Report.</li> </ol>
<b>Proposal Requirements:</b>	<ol style="list-style-type: none"> <li>1. Project duration shall not exceed 36 months.</li> <li>2. Proposal Deadline: 12:00 p.m. Central Time, <b>Monday, March 6, 2023.</b></li> <li>3. RFP#1 Q&amp;A Deadline: 12:00 p.m. Central Time, <b>Wednesday, February 1, 2023.</b></li> <li>4. Use the current "ProjAgre" and "PA Forms" templates located at the <a href="#">RTI Forms webpage</a>.</li> <li>5. 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 <a href="#">University Handbook</a>.</li> <li>6. Proposals should be submitted in PDF format; (1) PDF file per proposal. File name should include project name and university abbreviation.</li> <li>7. This project will be tracked during the life of the project using the Technology Readiness Level (<a href="#">TRL</a>) scale.</li> <li>8. The 2021 Texas Legislative Session requires that universities be in compliance with Senate Bill 475 by submitting a completed and signed TxDOT Security Questionnaire (TSQ) to <a href="mailto:RTIMAIN@txdot.gov">RTIMAIN@txdot.gov</a> in advance of a proposal submission. Universities found to not submit a completed and signed TSQ in advance of proposal submitting will be held in non-compliance and unable to participate in the Program.</li> </ol>