



FY 2025 Annual Program Research Project Statement 25-091

Title:	Analyze Operational and Safety Improvements Associated with Implemented Innovative Intersections in Texas
The Problem:	Innovative intersection designs (e.g., diverging diamond interchanges [DDIs], displaced left turns [DLTs], median U-turns [MUTs], and restricted crossing U-turns [RCUTs]) and modern roundabouts have been used successfully to remove conflict points and redistribute turning traffic from traditional intersections. Texas has a limited number of innovative intersections partially due to its unfamiliarity with these alternative designs. There is a need to increase the use of these innovative intersections throughout the state.
Technical Objectives:	<p>The objectives of this project are:</p> <ul style="list-style-type: none"> • Conduct a literature review and summarize state-of-the practice and key findings. • Identify innovative intersection sites in Texas. • Conduct safety analysis of the identified sites, as data are available. • Conduct operational analysis at select sites, including collecting after data (video data, vehicle travel times, pedestrian & bicyclists travel time/conflicts) at select sites. • Develop case studies from within the state. <p>The expected technology readiness level (TRL) for this project is 8.</p>
Anticipated Deliverables:	<ol style="list-style-type: none"> 1. Technical memorandum for each task completed. 2. Monthly progress reports. 3. Project Summary Report 4. Research report documenting the findings of this research, including: <ul style="list-style-type: none"> • Better understanding of the value of innovative intersections on traffic operations and safety for pedestrians and bicyclists. • Case studies of implemented innovative intersections in Texas. • Recommended revisions to the TxDOT Roadway Design Manual. • Value of Research (VoR) that includes both qualitative and economic benefits.
Proposal Requirements:	<ol style="list-style-type: none"> 1. RFP#1 Q&A Deadline: 12:00 p.m. Central Time, Tuesday, February 20, 2024. 2. Proposal Deadline: 12:00 p.m. Central Time, Thursday, March 21, 2024. 3. Use the current “ProjAgre” and “PA Forms” templates located at the RTI Forms webpage. 4. 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. 5. Proposals should be submitted by the University Liaison in PDF format; (1) PDF file per proposal. File name should include project name and university abbreviation. 6. This project will be tracked during the life of the project using the Technology Readiness Level (TRL) scale. 7. 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 RTIMAIN@txdot.gov. Universities that have not submitted a completed and signed TSQ one week after award will be considered non-compliant and unable to participate in the Program.