



FY 2025 Annual Program Research Project Statement 25-069

Title:	Develop Countermeasures to Lower Operating Speeds and Collisions on Arterial Roadways, and Reduce Vulnerable User Injuries
The Problem:	While roads defined as arterials need to maintain an acceptable level of traffic capacity, there are trade-offs with respect to speed. Roadway features that provide greater capacity (e.g., wider lanes, larger turning radii, and channelized right-turn lanes) can encourage higher operating speeds, resulting in safety challenges for vulnerable users (e.g., pedestrians and bicyclists). A key to addressing the increasing number of severe pedestrian and bicyclist collisions is to properly manage operating speeds on arterials.
Technical Objectives:	<p>The objectives of this project are:</p> <ul style="list-style-type: none"> • Conduct a literature review focused on arterial speed management. • Investigate the effectiveness of select speed management countermeasures that are appropriate for arterial streets. <ul style="list-style-type: none"> ○ Identify effective countermeasures that can aid in reducing the number of pedestrian collisions and in reducing the severity level of pedestrian collisions. ○ Effectiveness could be measured by decrease in operating speed, change in traffic operations, change in safety, etc. • Create an arterial speed management toolkit informed by background research and including analysis on implementation and feasibility. <ul style="list-style-type: none"> ○ What countermeasures are available to manage speed on arterials? ○ How effective are these countermeasures on reducing operating speeds? ○ Are there safety trade-offs associated with these countermeasures? ○ Shall assist in making departmental decisions on: <ul style="list-style-type: none"> ▪ Planning and capital improvements that are data driven, ▪ Communicating effectively to internal stakeholders and the general public. ▪ Making transportation infrastructure decisions that effectively manage operating speed and are safer for vulnerable users. <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. Arterial Speed Management Toolkit, to include: <ul style="list-style-type: none"> • Toolkit implementation strategies 4. Project Summary Report. 5. Research report documenting the findings of this research, including: <ul style="list-style-type: none"> • Findings of effective countermeasures, and • 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.