Title:	Re-Examine Minimum Reinforcement Requirements for Shear Design
The Problem:	Minimum shear reinforcement requirements in the AASHTO LRFD Bridge Design Specifications are based on tests conducted on reinforced concrete panels and beams. The extension of these requirements to prestressed concrete beams introduced significant conservatism in the current LRFD provisions for shear design. More accurate provisions are necessary to better predict the shear strength of pre-stressed beams.
Technical Objectives:	This research will investigate the validity of the minimum shear reinforcement requirements. The work to be performed shall include: 1. Perform literature review and outreach to identify previous load tests performed. 2. Conduct full-scale tests to comprehensively re-examine the minimum reinforcement requirements of AASHTO LRFD Bridge Design Specifications. 3. Develop design specifications for the minimum reinforcement requirements based on a comprehensive dataset. The expectation of the project end product(s) shall attain a Technology Readiness Level of 7.
Anticipated Deliverables:	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; not a stand-alone deliverable. 4. Research report documenting the findings of the research, including new/revised minimum shear reinforcement design guidelines. 5. Project Summary Report
Proposal Requirements:	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.