

Title:	Developing Guide Signing for Long Term Work Zones
The Problem:	<p>Part 6 of the Texas Manual on Uniform Traffic Control Devices provides standards and guidance for work zone devices, including signing. Section 6F.55 states that temporary guide signs shall have a black legend on an orange background.</p> <p>In 2017, TxDOT issued new standard sheets for Temporary Large Roadside Signs, including details on how to construct crashworthy skirts for large guide signs. In practice, a variety of temporary large guide sign designs are seen on long term construction projects on freeways. A variety of fonts, font sizes, sign sizes, route marker plaque designs and text designations, arrow designs, and placement standards are seen. Many of these projects last for multiple years.</p> <p>Suggested sign design and placement recommendations are needed to create uniformity for the traveling public. In addition to freeway guide signs, temporary guide signs on conventional highways are sometimes needed as well. The main benefit of this research will be improved operations thru work zones as drivers will be better able to identify their required exit or turn and maneuver into the correct lane in advance. This will lead to reduced crashes in work zone areas.</p>
Technical Objectives:	<p>The researchers shall address the following:</p> <ol style="list-style-type: none"> 1. Document current state of the practice and clearly document constraints to fabricating temporary large guide signs: cost of signs, lack of space to install signs, and minimal value added due to duration of project. 2. Investigate what signs may potentially be omitted, when font sizes may be reduced, and when placement locations may be adjusted to accommodate project conditions. 3. Establish minimum signing standards to serve the traveling public for the project duration, while considering the impact signing has on construction schedules and work spaces. 4. Develop signing options and test in the laboratory and work zones in the field to get feedback from both drivers and contractors.. <p>The expectation of this project is that the end product will obtain a TRL level 8.</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 a standard sheet showing sign designs for advance guide signs, exit signs, and exit gore signs for freeways and destination (D1) signs, distance (D2) signs, and street name signs (D3) for conventional highways. This standard sheet will also detail how route markers and arrows will be designed, as well as recommended placements for these signs. 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.