

## INSTRUCTIONS:

### General Information and Guidance:

- [Problem Statements](https://www.codot.gov/programs/research/problem-statement) are welcome at any time, and are evaluated twice each year.
- Begin by reviewing the Problem Statement FAQ at <https://www.codot.gov/programs/research/ProbStat>
- Due to a limited research budget, not all submitted problem statements become research projects. Developing a well written problem statement that contains all the requested information will improve the chances of it being selected.
- The problem statement is not a grant application or contract document. Your problem statement may be shared with others in an open Request for Proposal (RFP).
- CDOT and ARIB reserve the right to select any researcher and/or start date to carry out research. However, if a public entity authors a research problem statement, the study panel will consider recommending the funding for that public entity first.
- The problem statement should not exceed **6** pages.
- **All problem statements require a CDOT staff champion.** Each author should identify and discuss their research problem with a CDOT Champion. However, if you do not know of a champion leave this as 'unknown' and we will place this in a location for CDOT staff to access it and volunteer accordingly.

### Selection Criteria:

CDOT Applied Research & Innovation Branch (ARIB) in conjunction with various Research Oversight Teams (OT), and the Research & Implementation Council (RIC) will select projects based on key factors including:

- How well the research addresses critical needs and strategic objectives of CDOT.
- The potential research results are of statewide or regional interest.
- The likelihood that the research objective can be successfully achieved within the constraints of the proposed time and funds.
- The likelihood that the research will produce implementation-ready product(s) that can be used by CDOT.

### If you need assistance or have questions please reach out to ARIB staff:

- Dr. Steve Cohn, Research Program Director, [Steve.Cohn@state.co.us](mailto:Steve.Cohn@state.co.us)
- David Reeves, Engineering and Maintenance Program Manager, [David.Reeves@state.co.us](mailto:David.Reeves@state.co.us)
- Bryan Roeder, Environmental and Planning Program Manager, [Bryan.Roeder@state.co.us](mailto:Bryan.Roeder@state.co.us)
- Thien Tran, Research Engineer, [Thien.Tran@state.co.us](mailto:Thien.Tran@state.co.us)
- Sarah Zepeda, Research Librarian, [Sarah.Zepeda@state.co.us](mailto:Sarah.Zepeda@state.co.us)

### Problem Statement Submission:

Problem statements will be submitted through a Google Form and you will have a chance to upload this problem statement along with a simple 3-5 page presentation file. Please complete this form and a very short presentation file prepared in advance of completing the survey.

1. [Problem Statement Form](https://www.codot.gov/programs/research/problem-statement) (<https://www.codot.gov/programs/research/problem-statement>)
2. [PowerPoint Template](https://drive.google.com/file/d/1xDNJUcLR2biNrBIZpqquhUFsqOAY-f2-d) (<https://drive.google.com/file/d/1xDNJUcLR2biNrBIZpqquhUFsqOAY-f2-d>)
3. **FINAL STEP - Problem Statement Submittal** (<https://forms.gle/LHfEqhAKdjCtfnf49>) Please upload your completed files using this Google Form rather than emailing it to research staff as has been done in the past.

**PROBLEM STATEMENT TITLE:**

*[Name of proposed Research Study]*

**AUTHOR:**

Name:  
Organization:  
Phone:  
E-mail:  
Date Submitted:

**SPONSOR: (to be completed by research staff)**

*[CDOT Branch/Program Manager or Research and Implementation Council (RIC) member who is supporting the Research Study]*

**CHAMPION:**

*[CDOT staff who will lead the research study team and have a major involvement in the study and implementation of the results. No Research Studies will be initiated without a CDOT staff champion. If you do not know of a champion leave this as 'unknown' and we will place this Problem Statement in a location for CDOT staff to access it and volunteer accordingly.]*

**DESCRIPTION OF PROBLEM:**

*[Brief description of the problem to be solved]*

**ABSTRACT:**

*[A concise description of study objectives, proposed research approach, etc.]*

**HAVE YOU PERFORMED A LITERATURE SEARCH OR OTHERWISE INVESTIGATED EXISTING SOLUTIONS?**

*[If yes, describe limitations of prior research that this project would address? If not, consider doing a literature search. The ARIB Library and Librarian are available to help!]*

**BENEFITS OF RESEARCH:**

*[Describe the expected benefits of the research. Are there potential safety improvements, cost savings, efficiencies, improved processes, preparation for future technologies, or other benefits? When will they be realized? How can they be measured and tracked?]*

**ESTIMATED TIME TO COMPLETE RESEARCH:**

[How long do you anticipate this research taking to perform.]

Time Estimate (total months):

Explanation of time estimate:

**COST FOR RESEARCH:**

[If estimates or information about costs is available, please provide an itemized estimate.]

Itemized Cost Estimate:

**LEVERAGE/FEDERAL FUNDS:**

*[Would others (states, local governments, federal, etc.) be interested in this research? Are there already funding partners? Should the researchers or CDOT pursue funding partners?]*

**RESEARCH IMPLEMENTATION PLAN:**

*[Describe how the research findings may be used in the planning, design, construction, maintenance or operation, and safety improvement of Colorado's transportation system. Identify training needs and use cases of products.]*

**SUBJECT AREA:**

[Select the subject area(s) that best fits your problem statement. Ideally one option is selected but on occasion a couple can be selected.]

- Aviation
- Bike & Pedestrian
- Construction Management
- Environmental
- Geotechnical
- Hydraulics
- Maintenance & Operations
- Pavement & Materials
- Planning
- Policy
- Structures
- Transit & Rail
- Traffic & Safety
- Other - Please specify: