**Research Request for Proposal**

**Title:** Enter the Research Needs Statement title.

**Authors(s):** Provide the name(s) of the person(s) developing the research proposal request.

**RFP Number:** To be assigned by the Research Office.

**Problem Statement:**

Provide a clear and concise description of the issue that is to be researched and explain the problem to be addressed by the research. Try to be as specific as possible as this will provide the primary foundation for the research scope the of work outlined in the research proposal.

At a minimum, this section should:

* Describe the problem that needs to be researched and how it affects Tennessee/TDOT.
* Provide background information regarding the problem, noting any significant impact(s).
* Explain the need for this research and describe any adverse effects or consequences of if the research is not performed.

**Research Objectives:**

Describe what the research should achieve. Ensure to be as precise as possible as the research objectives drive the research methodology, including data collection, analysis, and ultimately the recommendations. The objectives serve as the framework for the research project, allowing the researcher to develop the scope of work to address the problem adequately.

When developing research objectives, aim to:

* Keep objectives brief and concise.
* Present them in logical sequence.
* Keep objectives realistic (e.g., achieved within the expected timeframe and cost).
* Use action verbs that are specific enough to be evaluated or measured (e.g., assess, determine, compare, verify, calculate, describe).

**Research Deliverables:**

List all specific deliverables the researcher is expected to provide to TDOT during or at the conclusion of the research project. Example research deliverables: data/dataset, specification, standard drawing, software/product, training/workshop, manual, etc.

A final report and research results presentation is a required deliverable for all research projects and will be included in all proposal requests.

**Benefits and Implementation:**

Explain how TDOT anticipates the research findings to benefit the Department, the state of Tennessee, our partners and/or the traveling public. Describe how the findings are expected to be implemented by TDOT and/or our partners. Providing this information gives researchers insight on how the results will be used by the agency, ensuring that this is considered in the research proposal.

Consider the following questions:

* Why is solving this problem important to TDOT?
* How will this research benefit TDOT? (e.g. cost savings, improve safety, improve agency efficiency, etc.)
* What does TDOT anticipate getting out of this research project?
* How might TDOT implement the findings? (e.g. update policy/procedure, adoption of technology, etc.)
* Could other agencies or states benefit from this research?

**Research Team Requirements:**

Describe the specific expertise needed by the research team to conduct the research. Identify any key disciplines that should be represented on the team, as well as any specific involvement needed from consultants, industry representatives, material suppliers, or other organizations.

**TDOT Assistance:**

List the support TDOT can provide to the research team throughout the duration of the project. For example, TDOT may be able to provide access to datasets, samples for testing, access to equipment/facilities, etc. Only list support TDOT can guarantee as the inability to provide the support can significantly impact the success of the research project, including completing it in the established budget and timeframe.

**Estimated Cost and Project Duration:**

Provide the estimated cost of the completing the research and the estimated timeframe. Keep in mind, the last 3 months of the project are dedicated to reviewing the final report. Most commonly, projects take 18 months to 3 years to complete cost between $100,000 and $250,000.