



# RESEARCH NEED STATEMENT

Call for Projects 2015

Project Research Title: In Service Performance Evaluation of Erosion Prevention Sediment Control ( EPSC) Devices

TDOT Sponsor Director: Jennifer Lloyd

List TDOT Research Team Lead: Ali Hangu

List TDOT Research Team Members:

Darrell Bost, Construction HQ, Specifications Office

Greg Russell, Environmental Division, Comprehensive Inspection Office

Danny Lane, Research Office, Materials and Test Division HQ

Michael Cloud, Maintenance, Operations Division

1. Define the problem or research requested. What is the goal/objective of the research?

The objective of this research is to evaluate the field performance of the current Erosion Prevention and Sediment Control (EPSC) devices. Investigate how often they are being modified during the construction under the Storm Water Pollution Prevention Plan. Determine if the quantities listed on the roadway plans are correct and cost of implementation reflects the estimated costs.

2. Is this research a continuation of a past or present project?

No  Yes

If yes, provide current research project title, RES # and reason for the project continuation.

3. Describe anticipated benefits/expected deliverables.

Research will reveal if our current practices are satisfactory

4. What is your timeline for completion of the research?

One year

5. List the anticipated tasks for this research.

Project selection

Field investigation

Monitoring

Documentation

Recommendations

Final Report

6. Describe how the project results will be implemented?

The results will be implemented in to TDOT policies immediately to correct the identified issues

7. Will this study produce software, web page or other technology that will involve the Information Technology Division?

No  Yes, please describe:

8. Will training be provided to employees as a result of this research?

No  Yes, please describe:

9. Will this research involve equipment or materials purchase?

No  Yes, please describe:

10. Research must support the Long Range Transportation Plan Policy Recommendations **and/or** TDOT Operational Goals and/or Strategic Initiative. *(See attachments for additional information)*

Please indicate which categories the research will support:

Transportation Long Range Plan Policy Recommendations

(A) Accessibility

(B) Safety, Security, and Transportation Resilience

(C) Coordination, Cooperation, and Consultation

(D) Demographic and Employment Changes and Trends

- (E) Freight Logistics and Planning
- (F) Financial
- (G) Mobility
- (H) Travel Trends and System Performance

TDOT Operational Goals and/or Strategic Initiative

- (A) Deliver transportation projects on schedule and within budget
- (B) Maintain the state transportation system to protect the long term investment in our infrastructure assets
- (C) Operate and manage Tennessee's transportation system to provide a high level of safety and service to our customers and workers
- (D) Expanding mobility choices to maximize access
- (E) Dramatically change the paradigm for delivery of transportation products and service to improve the efficiency and effectiveness of Tennessee's transportation network

11. Please explain how the research supports the Long Range Transportation Plan Policy Recommendations **and/or** TDOT Operational Goals and/or Strategic Initiative selected above:

Current the department spends millions of dollars annually on EPSC applications for every roadway project without receiving any feedback from the field. Recent investigations and communications among different divisions revealed that the current practices do need an immediate update. In order to fix what is wrong and how to correct the deficiencies a comprehensive field investigation is needed. This research is supported by the EPSC Policies Committee. Easily accessible and accurate policies will improve efficiency in the transportation network.

For additional information, please contact:  
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