



RESEARCH NEED STATEMENT

Call for Projects 2015

Project Research Title: Bicycle and Pedestrian Safety at Railroad Crossings

TDOT Sponsor Director: Liza Joffrion

List TDOT Research Team Lead: Jessica Wilson

List TDOT Research Team Members: Casey Langford, Erik Anderson

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

At grade railroad crossings present a safety challenge for bicycle and pedestrian users. Safely traversing these crossings can be a challenge even for experienced cyclists. With a growing number of non-motorized trips, safety at these crossings must be addressed. A particular concern arises with crossings for two-way cycle tracks. This project will evaluate current practices for such crossings, based documented crashes or the potential for crashes, and will make recommendations for best practices in Tennessee. The research will consider both one-way and two-way crossings (i.e. shared-use paths, two-way cycle tracks, etc.).

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.

n/a

3. Describe anticipated benefits/expected deliverables.

The deliverable will be a report analyzing best practices with regard to user safety.

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

2 years

5. List the anticipated tasks for this research.

- Review of current 'best' practices and examples in Tennessee and similar locations.
- Detailed assessment of each practice in regard to user safety or potential for crashes.
- Development of best practices in Tennessee.

6. Describe how the project results will be implemented?

The final report will shape the future design of bicycle and pedestrian facilities at railroad crossings.

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

☒ No ☐ Yes, please describe:

n/a

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

☒ No ☐ Yes, please describe:

n/a

9. Will this research involve equipment or materials purchase?

☒ No ☐ Yes, please describe:

n/a

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:

The research topic is of concern for the safety of both bicycle and pedestrian users and railroads. The results will help plan and design safer crossings, promoting mobility by providing safe facilities.

For additional information, please contact:

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