

Research Need Statement 568

I. Need Statement Champions and Information

I.A. Need Statement Champion Information

I.A.1. First and Last Name of Research Champion: **Amber Dallman**

I.A.2. Research Champion's Office: **MnDOT OTAT**

I.A.3. Research Champion's Phone Number: **651-366-4189**

I.A.4. Research Champion's Email: **amber.dallman@state.mn.us**

I.B. Research Co-Champion

I.A.1. First and Last Name of Research Co-Champion: **Sonja Piper**

I.A.2. Research Co-Champion's Office: **MnDOT OSOM**

I.A.3. Research Co-Champion's Phone Number: **651-234-7376**

I.A.4. Research Co-Champion's Email: **Sonja.Piper@state.mn.us**

I.C. Research Needs Title (115 Characters): **Pedestrian Engineering and Enforcement at Signalized Intersections**

I.D. Project Sponsor: **Joint MnDOT and Local Road Research Board**

II. Research Need Background and Description

II.A. Research Need Background

II.A.1. Describe the problem or opportunity. **The "Stop For Me" campaign in St Paul has proven successful to improve driver yielding rates at unsignalized intersections. Our most serious pedestrian crash problems occur at signalized intersections.**

II.A.2. If applicable, describe how this project will build on previous research. **This study would look to expand the model that was studied for unsignalized intersections and apply it to signalized areas.**

II.A.3. If applicable, include the title/s or previous research.

Evaluation of Sustained Enforcement, Education, and Engineering Measures on Pedestrian Crossings ([Project 2016-072](#))

Advancing pedestrian safety using education and enforcement efforts in pedestrian focus cities and states: North Carolina, University of North Carolina, Chapel Hill

<http://www.nhtsa.gov/staticfiles/nti/pdf/812286-PromotingPedSafetyEdu-NC.pdf>

Watch for Me NC: bicycle and pedestrian safety, education, and enforcement campaign: 2014 program summary, University of North Carolina, Chapel Hill

http://www.watchformenc.org/wp-content/themes/WatchForMeNC_Custom/documents/WFM_FinalReport_2014.pdf

II.A.4. What is the **objective** of the proposed research?

Evaluate how to improve compliance with cross-walk law and subsequent reduction of pedestrian-vehicle crashes at signalized intersections through education and enforcement. In addition the project should:

- **Identify challenges for people walking at signalized intersections.**
- **Identify challenges for people driving near pedestrians at signalized intersections (e.g., no right turn on red, free-rights at signals)**

III. Strategic Priorities, Benefits, and Expected Outcomes

Section III. is for MnDOT sponsored and co-sponsored projects only; all LRRB projects proceed to section IV.

III.A. MnDOT Strategic Priorities

Instructions: Briefly describe how the project aligns with the following MnDOT Research Strategic Priorities. Complete all that apply.

III.A.1. Innovation & Future Needs: **Improve signal timing for people walking. This is in alignment with a current MnDOT working group reviewing emerging trends and recommendations to improve signal timing for people walking.**

III.A.2. Advancing Equity: **Improving pedestrian safety would positively affect groups (such as low-income and disabled) who are more dependent on walking and public transportation**

III.A.3. Asset Management:

III.A.4. Safety: Improve pedestrian safety by reducing pedestrian fatalities and injuries

III.A.5 Climate Change & Environment:

III.B. Expected Outcomes

Instructions: Check all expected direct outcomes of this research.

- New or improved technical standard, plan, or specification
- New or improved manual, handbook, guidelines, or training
- New or improved policy, rules, or regulations
- New or improved business practices, procedure, or process
- New or improved tool or equipment
- New or improved decision support tool, simulation, or model/algorithm (software)
- Evaluation of a new commercial product
- New or improved technical standard, plan, or specification
- Other. Please specify below:

Note that recommended training could include law enforcement agencies

III.C. Expected Benefits

Instructions: Select all expected benefits that may be realized if the findings and recommendations from this research is adopted or implemented

III.C.1. Construction Savings Choose an item.

III.C.2. Decrease Engineering/Administrative Costs Choose an item.

III.C.3. Environmental Aspects Other environmental impact. Please describe below.
Encouraging walking as a safe, convenient transportation mode, which supports MnDOT's multimodal mission and increased sustainability.

III.C.4. MnDOT Policy Changed or inform a policy
Coordinate with working group reviewing recommendations for improved signal timing for people walking, and findings may affect updates to crosswalk guidance.

III.C.5. Lifecycle Choose an item.

III.C.6. Operations and Maintenance Savings Choose an item.

III.C.7. Reduce Risk Other reduced risk. Please describe below
Reduce pedestrian risk of injury or fatality due to pedestrian-vehicle crashes

III.C.8. Reduce Road User Cost Other reduced road user cost. Please describe below.
Reduce pedestrians-vehicle crashes

III.C.9. Safety Reduction of crash frequency

III.C.10. Technology Choose an item.

III.C.11. Other, please describe below:

IV. Technical Advisory Panel

Instructions: Please list the name and affiliation of individuals to consider for the Technical Advisory Panel.

Amber Dallman, MnDOT OTAT
Sonja Piper, MnDOT OTE
Michelle Pooler, MnDOT OTAT
Melissa Barnes, MnDOT Metro
Jeremy Ellison, St. Paul Police Department
Ethan Fawley, City of Minneapolis, Vision Zero
Move Minnesota
Brad Estochen, Ramsey County Public Works
Sue Zarling, MnDOT OTE, Signals & Lighting
David Tsang, District 6 Signals
Dan Erickson / Julie Dresel, MnDOT Metro State Aid
Department of Public Safety OTS
Department of Health Injury Prevention

Your assigned Project Advisor is available to answer questions and provide guidance (assigned by the Office of Research & Innovation).

Your Project Advisor is: Beth Klemann (651)366-3771 beth.klemann@state.mn.us