**Domestic Scan Proposal Form**

AASHTO is now soliciting proposals for a **Calendar Year 2019 US Domestic Scan Program** (NCHRP Panel 20-68A).

Selected scan topics will be investigated by one of three ways: (type 1) site visits to three to six locations for approximately a two week period or less, by webinar; (type 2) peer exchange; or (type 3) conducted by a group of eight to 12 transportation professionals with expertise in the selected topic area. Proposed topics should meet the following criteria:

* Address an important and timely need for information by transportation agencies;
* Are of interest to a broad national spectrum of people and agencies;
* Are complex and also “hands-on,” meaning they lend themselves particularly well to exploration through on-site visits; and
* Are sufficiently focused that the tour participants are able to investigate and understand key issues in the limited time available on the tour.

Before submitting your proposal it is highly recommended that you read [**What Makes a Good Scan Topic Proposal**](http://www.domesticscan.org/what-makes-a-good-scan-topic-proposal)[**http://www.domesticscan.org/what-makes-a-good-scan-topic-proposal**](http://www.domesticscan.org/what-makes-a-good-scan-topic-proposal)

This form is designed to collect the full length of your proposal. Sections requiring essays have unlimited space for you to use. Contact information has some limited text. ***Use your TAB🡪 key to advance to the area where you need to complete information.***

**Proposals should be returned no later than SEPTEMBER 28, 2018.**

**IMPORTANT NOTE on How to save your document**: ***LastNameFirst Initial, underscore\_Organization Acronym \_CY2019.***

***Saved Document Name Example: NgetheP\_AASHTO\_CY2019***

***If you have more than one, add a number after first initial: NgetheP1\_AASHTO\_CY2019***

**Domestic Scan Proposal Contact Information**

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| AASHTO Committee | Committee on Materials & Pavements | Date of submission | 9/28/2018 |

**Title of Proposed Scan****:** Best Practices In Pavement Marking Retroreflectivity Measurement And Management

**Problem Statement** (What topic is to be examined? What drives the need for the scan? Why now?)

The visibility of pavement markings is an important aspect of a safe transportation system as they convey vital roadway warnings and guidance information to the traveling public. According to the Federal Highway Administration (FHWA) Roadway Departure Safety "Nighttime Visibility" web page, more than half of all traffic fatalities occur at night even though three quarters of travel occurs in daylight. Thus, when factoring in miles driven, the fatality rate at night is triple that of the daytime death rate. Although other factors such as alcohol and fatigue cannot be minimized, pavement markings have been shown to facilitate safe nighttime driving, given appropriate visibility, and reduce crashes. Thus, it is beneficial to maintain acceptable visibility levels of markings on pavements under all weather and lighting conditions. To ensure such visibility levels are adequately maintained, the retroreflectivity must be periodically monitored and quantified.

Historically, visibility or retroreflectivity of in-service pavement markings has been measured with handheld devices and visual inspections. However, visual surveys are considered subjective and the handheld measurements are tedious and potentially hazardous to perform. Consequently, considerable attention has been directed towards using non-contact sensor-based technology, which is potentially well suited for assessing pavement markings continuously at highway speeds, providing improved safety and efficiency.

Equally important is that the monitoring data be managed effectively and systematically, utilizing a comprehensive system for pavement marking management. Such a system would provide useful and objective information for more consistent, cost-effective, and data-driven decision-making while ensuring the safety of the traveling public.

**Scan Scope** (What specific subject areas are to be examined? Which cities and states might be visited? Which agencies/organizations (including specific departments or types of staff if applicable)?

The purpose of this scan would be to identify best case examples of network level pavement marking retroreflectivity monitoring technologies and related data management approaches and practices. The scan team might visit transportation agencies in states such as Iowa, Kansas, North Carolina, and Michigan.

The scan team will particularly focus on the following:

• types of technologies used and reasons for their use

• data management approaches and methods

• data collection processes and frequency

• types of pavement markings considered

• data quality assessment

• the purpose(s) and methods for using the data

**Anticipated Scan Results** (What key information is to be gained? What information is to be shared after the scan? Who would the audience be for this information?)

It is anticipated that information documented by the scan team will be of interest to entities that include transportation agencies (ie Safety, Materials, and Maintenance Offices, technologies manufacturers. and service providers), to include the following:

• understanding of current practices for retroreflectivity data collection including related technologies and associated challenges

• existing documented good knowledge of data collection and management practices

• additional needs to assure proper data collection and management

• different approaches to capturing and providing for information needs of various organizational functions such as products approval, construction, maintenance, and safety operations

• nighttime visibility scheme in the overall safety plans

• lessons learned

**Benefits Expected** (Including potential impacts on current technology or procedures)

It is anticipated that information documented by the scan team would would allow, at a minimum, for the following:

• enhanced understanding of pavement retroreflectivity data collection and management including associated technologies and challenges

• compilation of technologies, methods, and processes; and information on best practices and lessons learned

• potential methods to enhance current safety plans, including appropriate assessment of the nighttime visibility

• appropriate retroreflectivity target levels for nighttime visibility for nationwide implementation or obtain information to refine/verify the minimum pavement marking retroreflectivity levels in the MUTCD

• standardization of data collection procedures

• training