**Domestic Scan Proposal Form**

AASHTO is now soliciting proposals for a **Calendar Year 2018 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 29, 2017.**

**IMPORTANT NOTE on How to save your document**: ***LastNameFirst Initial, underscore\_Organization Acronym \_CY2017.***

***Saved Document Name Example: VitaleM\_AASHTO\_CY2017***

***If you have more than one, add a number after first initial: VitaleM1\_AASHTO\_CY2017***

**Domestic Scan Proposal Contact Information**

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| AASHTO Committee | Maintenance | Date of submission | 9/1/2017 |

**Title of Proposed Scan****: *Successful Approaches For Maintenance Support Facility Layout And Operation.***

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

Maintenance practices of highway agencies have evolved over time to respond to changing conditions, new responsibilities, and equipment. At the same time maintenance support facilities have not kept pace. Multi-functional equipment with a variety of attachments and configurations have become commonplace and are necessary to optimally fulfill both summer and winter maintenance operations. The equipment fleet to support maintenance operations has become larger and longer over the years to provide increased production with limited human resources. New materials have been developed to achieve the maintenance mission such as the use of liquid deicers and blended liquids, herbicides, crack fillers, line striping and retro-reflective materials each with unique storage requirements to comply with Occupational Safety and Health, and environmental stewardship policies and regulations. Best practices and low-cost alternatives have evolved as maintenance forces have adapted their aging maintenance support facilities to accommodate changing maintenance mission objectives, new and larger equipment, and the materials necessary to achieve their mission objectives. As right of way becomes harder to acquire, opportunities for the development of shared use facilities with other public works agencies becomes more desarible.

Environmental stewardship has become increasingly important particularly with older maintenance support facilities that, in many cases, do not have the necessary design features for compliance. Experiences in fleet preventative maintenance activities such as equipment washing, managing the storm water runoff from material stockpiles, and anti-icing equipment and brine production, will benefit maintenance operations across the nation. Best practices in applying The Clean Water Act, National Pollutant Discharge Elimination System (NPDES) program and requirements associated with Municipal Separate Storm Sewer System (MS4) permits must be an integral element of any new or existing site layout and operational plans for maintenance support facilities.

**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)?

This scan would look at maintenance support facilities from the following perspectives:

1) Retrofits of existing facilities to accommodate new and larger equipment and materials storage.

2) Advances in the utilization of alternative solutions to traditional structures such as salt domes, fabric enclosures, modular or temporary facilities, or multi-jurisdictional facilities.

3) Leading practices to safely remove, attach, and store multi-functional equipment attachments, such as lifts, racks, or self-supporting frames.

4) Successful approaches to address equipment washing and storm water management requirements for maintenance facilities, and

5) Operational layouts to promote safe and efficient movements throughout the maintenance support facility.

6) Best practices in the development and utilization of multi-agency shared use facilities.

7) Successful approaches to funding both the development and long term operational costs associated with the facilities.

Each element would be examined in light of compliance with OSHA, NPDES, and MS4 requirements.

To document these innovative and promising approaches, the scan team would first conduct a virtural scan to identify successful practices and innovative approaches. Once this is completed the scan team would visit a variety of DOTs and municipalities who have demonstrated commitments to efficient maintenance support facility organization, operations, and storm water prevention encompassing maintenance support facilities. For the scan team to fully grasp the best practices and successful approaches employed they should interact with the maintenance personnel who have to utilize the facility, architects who have developed best practices in facility retrofits, and environmental specialists who have developed best practices in storm water management for maintenance support facilities. Potential agencies might include:

• Nevada DOT

• Virginia DOT

• Massachusetts DOT: facilities at Braintree and Andover, MA

• Johnson County Secondary Roads - Main Facility/Shop, Iowa City, Iowa.

• Others (total of 4-5 states covering all AASHTO regions and 1 or 2 municipalities)?

**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?)

Successfully completing this scan will identify for transportation agencies new ideas and leading practices that agencies have developed to cope with aging facilities and garages as their operations have transformed through the use of larger, multi-functional equipment and storage of new materials while, at the same time, responding to evolving health and safety and environmental regulation.

As agencies struggle with limited resources to improve their support facilities, these very facilities greatly influence their ability to perform mission critical work. This scan will Identify best practices and innovative solutions to problems common to all agencies with outdated facilities to improve their safety, effectiveness, and efficiency, in addition to opportunities to address the environmental stewardship required.

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

Documenting the collection of successful approaches to the operation of maintenance facilities will advance the state of the practice for all maintenance organizations dealing with new regulations and aging facilities. Employing innovative solutions to maintenance support facilities will enhance an agencies ability to deliver services in a safe efficient way. Successful solutions to meet environmental and other storm water requirements will benefit not only worker safety and efficiency but will advance environmental stewardship and compliance with environmental regulations.