

AMERICAN ASSOCIATION  
OF STATE HIGHWAY AND  
TRANSPORTATION OFFICIALS

# AASHTO

## Transportation Vanguard Award Nomination Form

**2016**

**INFORMATION ON NOMINEE:**

Last Name: Schopman	First Name: Katherine	Date: July 15, 2016	
Email: kschopman@pa.gov		Position Title: Senior Civil Engineer Bridge	
Department: PA Department of Transportation		Phone: 717-214-8916	
Street Address: 400 North Street	City: Harrisburg	State: PA	Zipcode: 17105
AASHTO Committee Membership (optional) AASHTO Bridge Rating and Design User Group (RADBUG)			

**NOMINATOR INFORMATION:**

Last Name: Christie	First Name: R. Scott	Date: July 15, 2016	
Email: rchristie@pa.gov		Position Title: Deputy Secretary for Highway Administration	
Department: PA Department of Transportation		Phone: 717-787-6875	
Street Address: 400 North Street	City: Harrisburg	State: PA	Zipcode: 17105
Endorsement of Member Department Secretary/Director: 			

**INSTRUCTIONS:**

Using a maximum of 2 additional single-sided pages, please provide reasoning as to why this individual should be selected as the Transportation Vanguard Award recipient. Please include as much specific information about the candidate as possible, including special projects, personal attributes, dedication, etc.

Send nominations by **Monday, July 25, 2016**, via e-mail to [mvitale@ashto.org](mailto:mvitale@ashto.org). Nominations must be submitted as a single file in MS Word format using **TVA2016\_Nomination\_Nominee\_Name.doc** as the file name.

**American Association of State Highway and Transportation Officials**  
**Transportation Vanguard Award Nomination: Katherine Schopman**  
**Pennsylvania Department of Transportation**

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Katherine Schopman's drive and dedication to excellence are reflected in her many achievements in just a short time with the Pennsylvania Department of Transportation (PennDOT). After joining PennDOT and completing the requirements of her 15-month trainee program in just 12 months, Katie has displayed extraordinary work ethic, job knowledge, organizational ability, and a consistent willingness to perform at levels beyond her assigned classification. She has made substantial contributions to many PennDOT initiatives in the areas of design, use of software, bridge planning, bridge programming, and data analysis.

Katie is lead engineer in the data collection project for the Federal Highway Administration (FHWA) *Long-Term Bridge Performance Program*. She also leads the national *SHRP2 100 Year Service Life of Bridges* initiative on behalf of PennDOT, evaluating concrete properties for durability of material and investigating possible options for improving concrete mix designs.

Recently, Katie managed a special project performing extensive data analyses on potential list of bridges to be included in the nationally-recognized *P3 Rapid Bridge Replacement Project*. She was responsible for the evaluation of various contributing factors including bridge condition, bridge appraisal items, environment, traffic, and geometric elements.

Katie possesses exceptional public speaking skills, and is adept at presenting highly technical topics to senior bridge staff. She organized a cross-Departmental team tasked with the management of bridge-related documents across numerous PennDOT systems, and also led a development team formed to connect data to assets.

Her driven approach to research often extends beyond PennDOT's own resources. She completed a data analysis comparison of bridge weight/posting practices of other states to that of PennDOT. Katie's analysis was key to formalizing a policy resulting in over 900 bridge restrictions to improve safety and extend the service life of structurally deficient bridges.

Katie's expertise in utilizing software has also been a tremendous asset to the Department, and she has repeatedly deployed tools and software for innovative real-world applications. For example, Katie employed the UTBridge software (developed by the University of Texas) to evaluate girder stability during various stages of construction on major bridge projects.

Her technical savvy doesn't stop there. She validated the Mechanically Stabilized Earth wall spreadsheet for PennDOT, and completed a detailed evaluation of complex bridge members utilizing UT bridge software related to the stability of the bridge members. She led successful software acceptance testing for BAR7 as related to the analysis of pony truss bridges, and also led a detailed investigation into issues with PennDOT steel design software for lateral torsional buckling.

She is the lead technical expert for the development of the new *S-Number System* for the retention of plan records, and maintains PennDOT's Design Manual, Part 4 for use by PennDOT Districts and consultants. Additionally, she is lead technical expert for the AASHTO BrR software used for the load rating analysis of all steel curved girder bridges in Pennsylvania; Katie will be the technical contact for 11 District Offices and various consultants.

Additional roles and duties Katie has absorbed include: analysis of thermoplastic pipes for statewide acceptance and use; parametric study related to vehicle impact load on retaining walls; data analysis regarding the planning and programming of bridges for the Governor's performance targets; and design review for bridge designs developed by consultants to ensure quality, constructability, and cost effectiveness.

Despite being employed full-time by the Department, Katie is pursuing a Master's Degree in Civil Engineering at Pennsylvania State University. In her spare time, she is an active member of a local soccer league.