

Accelerating the Rate of Innovation Among State DOTs—Tracing Domestic Scan Impacts

MEMORANDUM

Findings for Scan 11-02 Best Practices Regarding Performance of ABC Connections in Bridges Subjected to Multihazard and Extreme Events

Prepared for:

National Cooperative Highway Research Program
U.S. Domestic Scan Program

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SPECIAL NOTE: This report **IS NOT** an official publication of the National Cooperative Highway Research Program, Transportation Research Board, National Research Council, or The National Academies.

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Disclaimer

The opinions and conclusions expressed or implied are those of the research agency that performed the research and are not necessarily those of the Transportation Research Board or its sponsoring agencies. This report has not been reviewed or accepted by the Transportation Research Board Executive Committee or the Governing Board of the National Research Council.

Overview

Developed by AASHTO and administered by NCHRP, the U.S. Domestic Scan Program (<http://www.domesticscan.org/>) facilitates technology transfer among transportation agency staff by creating opportunities for face-to-face information exchange on selected timely topics. Scan 11-02—Best Practices Regarding Performance of Accelerated Bridge Construction (ABC) Connections in Bridges Subjected to Multihazard and Extreme Events (<http://www.domesticscan.org/11-02-performance-of-abc-connections>) is one in a series of scans conducted since 2007.

Tracing Domestic Scan Impacts is a companion effort that seeks to assess how well the U.S. Domestic Scan Program is meeting its goals of broad information dissemination and accelerated implementation of new transportation technologies and best practices.

For scan 11-02, CTC & Associates conducted an online survey of scan team participants to collect feedback on the scan and gauge its impact on practitioners. We collected responses from three of six members of the scan team. A seventh member is no longer with the state DOT he represented on the scan.

Survey findings

1. CONDUCT OF THE SCAN. How important to you were the following scan program features in contributing to the overall value of this scan tour?

Scan Feature	Responses					Average
	1— Not important	2— Somewhat important	3— Important	4— Very important	5— Extremely important	
Preparatory materials and meetings in advance of the scan tour				3		4.0
On-site visits to observe the subject technology or practice			1	2		3.7
Face-to-face technical exchange with host state personnel and other scan participants				2	1	4.3
Final report of scan findings				2	1	4.3
Post-scan consultation with host state personnel and other scan participants			2	1		3.3

2. OUTCOMES OF THE SCAN. How important to you were the following scan program outcomes in contributing to the overall value of this scan tour?

Scan Outcome	Responses					Average
	1— Not important	2— Somewhat important	3— Important	4— Very important	5— Extremely important	
<i>Introduction to a new technology or practice</i>			2	1		3.3
<i>Clearer understanding of a new technology or practice</i>				3		4.0
Identification of one or more individuals <i>at a host state</i> to call on as a future resource			1	2		3.7
Identification of one or more individuals <i>on the scan team</i> to call on as a future resource			1	2		3.7
Information with which to <i>begin implementation</i> of a technology or practice at your agency			1	2		3.7
Information with which to <i>continue implementation</i> of a technology or practice at your agency				3		4.0

3. SHARED INFORMATION WITH OTHERS. Following the scan tour, if you shared information about one or more of the technologies, practices or policies identified through the scan, please describe how. (Check all that apply.)

Type of Information Sharing	Number responding	Percent responding
Shared information with peers or subordinates at my agency	3	100%
Presented findings to senior management or agency executives	2	67%
Presented scan findings at a state or regional meeting	0	0%
Presented scan findings national or international meeting	1	33%
Wrote a paper or journal article about the scan findings	2	67%
Recommended state or national research based on the scan findings	3	10%

If you checked any of the boxes above, please provide details (conference name and date, title of presentation, webinar or paper, etc.)

- Submitted paper to *ASCE Practice Periodical on Structural Design and Construction*.
- Seventh National Seismic Conference presentation and paper. The paper will also be presented at the 2013 FHWA U.S.-Japan Workshop.

4. BARRIERS TO INFORMATION SHARING. Please describe the barriers you encountered to sharing the scan findings after the scan tour. (Check all that apply)

Barrier to Information Sharing	Number responding	Percent responding
Insufficient time for information sharing activities	1	33%
Insufficient interest/support from management	0	0%
Lack of presentation materials	0	0%
Lack of expertise to communicate scan findings	0	0%
Insufficient funding to attend meetings	3	100%
Insufficient technology to present scan findings via the Web (videoconferencing or webinars)	0	0%
Other (<i>free response</i>)	0	0%

What additional support can the Domestic Scan Program provide to disseminate scan findings more broadly?

- (No responses)

5. IMPLEMENTED SCAN FINDINGS. If you used information from the scan to make or recommend a change to practices at your organization, please indicate how. (Check all that apply)

Type of Implementation	Number responding	Percent responding
Proposed implementation	2	67%
Planned implementation	2	67%
In-progress implementation	1	33%
Completed implementation	0	0%

If you checked any of the boxes above, please provide details on the implementation.

- Caltrans has developed research proposals for seismic connections for ABC applications; is involved nationally through TRB and AASHTO; is funding research through the department; and is in the process of developing standardized details for ABC implementation in high seismic regions.

6. BARRIERS TO IMPLEMENTATION. Please describe the barriers that you encountered to implementing the scan findings at your agency. (Check all that apply)

Barrier to Implementation	Number responding	Percent responding
Insufficient interest/support from management	0	0%
Solutions observed on the scan tour are not applicable at my agency	0	0%
My agency's policies/practices/technologies are more advanced than those observed on the tour	0	0%
Regulatory or legislative barriers to implementation	0	0%
Insufficient time to pursue implementation	0	0%
Insufficient funding	0	0%
Insufficient expertise	1	33%
Other (free response)		
<ul style="list-style-type: none">• Scan involved complex subjects that will take significant time to coalesce. Subjects need more national development (as indicated in the scan report) for implementation on a nationwide basis. This should come in time for the states.	1	33%

What additional support can the Domestic Scan Program provide to help agencies implement scan technologies and practices?

- (No responses)

7. WEBSITE. Prior to receiving this survey request, were you aware of the U.S. Domestic Scan Program website, domesticscan.org?

	Number responding	Percent responding
Yes	1	33%
No	2	67%

8. OTHER COMMENTS. Please use this space to provide any additional comments about the scan tour or your use of the findings.

- The Scan was a great starting point to get the ball rolling on ABC and multihazard. It was an important “vehicle” to get some momentum to get these complex subjects more developed through time.