NCHRP 20-68A
“US Domestic Scan Program”

Domestic Scan 15-01
Developing And Maintaining
Construction Inspection Competence

Findings, Conclusions and Recommendations
Domestic Scan 15-01

“Developing And Maintaining Construction Inspection Competence”

• This scan is being conducted as a part of NCHRP Project 20-68A, the U.S. Domestic Scan program

• The program was requested by the American Association of State Highway and Transportation Officials (AASHTO) Subcommittee on Construction (SOC), with funding provided through the National Cooperative Highway Research Program (NCHRP)
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AASHTO / NCHRP
U.S. Domestic Scan Program
Scan 15-01 Team Members Home State and Invited Agency States

- Team Member Home State
- Host Agency State

Key:
- Green: Team Member Home State
- Orange: Host Agency State

States:
- CA (SME)
- FL
- MD (AASHTO re:source)
- DC (FHWA)

Team Members:
- OR
- CA
- NV
- UT
- AZ
- CO
- NM
- TX
- OK
- LA
- MO
- IL
- WI
- MN
- WA
- MI
- IN
- OH
- PA
- NY
- TN
- MS
- AL
- GA
- SC (SME)

Host Agency:
- VT
- NH
- ME
- MA
- RI
- CT
- NJ
- DE
- MD (AASHTO re:source)
- DC (FHWA)
- AK
- HI
- AK
“This scan will investigate such programs, focusing particularly on leading states, counties, metropolitan areas, municipalities and other transportation agencies adoption of teaching and learning methods such as the following examples:

- Mentoring programs
- Hands on training
- Online training
- Just-in-time training
- Video training
- Public private training partnerships
- Innovative hiring practices
- Certification testing
- Pay for qualifications”
Developing And Maintaining Construction Inspection Competence

- Meeting Overview
- Findings
- Conclusions
- Recommendations
The number of consultant inspectors used by agencies varies widely.

Presenting states developing and converting content for online delivery.

Presenting states use a broad mix of delivery methods.

Programs vary by structure, content and internal versus external.

Overview

Findings

Conclusions

Recommendations
<table>
<thead>
<tr>
<th>Instructors</th>
<th>Creation of an instructor certification program for SMEs is critical for competency development.</th>
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<tbody>
<tr>
<td>Manuals/Publications</td>
<td>Manuals and guidance publications are shared electronically and in print.</td>
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<tr>
<td>Mentoring</td>
<td>Incorporate mentor programs into performance management/employee development program/cycles.</td>
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<tr>
<td>Partnerships</td>
<td>Industry groups and vendors are a good source for training. For example, Roadtec partners with ALDOT to train on milling, sweeping, tack, good paving practices.</td>
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</tbody>
</table>
Sustainable programs require stable resources.

Internal staffing for the valleys and use of consultants to address the peaks is a proven strategy.

Learner response systems are widely accepted.

Exam questions should test for experiential knowledge not just for data recall.
Developing And Maintaining Construction Inspection Competence

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Presenting states were divided on the topic of training consultants.

A well defined scope, audience analysis, defined learning objectives needed.

Demonstrated success using video training through YouTube or other delivery means.

NETTCP is an example of a successful framework for a regional certification program.

Overview  Findings  Conclusions  Recommendations
Utilizing field (field experience) SMEs (in-house or within industry demonstrated to be effective and more beneficial for the student.

States use both electronic and hard copy versions for effective development efforts.

Most presenting states support mentoring as a method for inspector development.

Value in joint training with industry, consultants, local personnel to ensure equivalent competencies.

Overview  Findings  Conclusions  Recommendations
Overview

Insufficient resources to meet the challenge of developing competencies of construction inspectors.

Success in recruiting and hiring construction inspectors from colleges and universities from internship programs reported.

Funding and IT policies/security issues are two resources that limit use of state of the art technologies.

Success reported when exams measure knowledge application rather than data recall.

Findings

Conclusions

Recommendations
Developing And Maintaining Construction Inspection Competence

- Meeting Overview
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✓ Encourage state transportation agencies to partner with industry and academia because of demonstrated successes – to leverage resources.
Leverage technology wherever feasible to increase the effectiveness, efficiency and quality of training.

Leverage technology in the development and delivery of training.
States define construction inspector qualifications and/or certifications required to perform the job.

Establish effective training programs to develop and certify qualified construction inspectors.

Appropriate screening and hiring practices to ensure aptitude.
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Full Report can be found at www.domesticscan.org

Professional development leads to career opportunities and that is how we develop tomorro worms leaders.

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