

Hearing on the Oversight of the Highway Bridge Program and the National Bridge Inspection Program

On July 21, 2010, the U.S. House of Representatives' Committee on Transportation and Infrastructure Subcommittee on Highways and Transit held a hearing to examine oversight by the Federal Highway Administration (FHWA) of the Federal Highway Bridge Program (HBP) and the National Bridge Inspection Program (NBIP). A summary of the subject matter, witness testimonies, and a video of the hearing are available online.

<http://transportation.house.gov/hearings/hearingDetail.aspx?NewsID=1268>

Impact of Overhang Construction on Girder Design

The Center for Transportation Research at the University of Texas at Austin has released a report that explores bridge behavior due to the unbalanced loading of overhang construction and to identify critical factors affecting girder behavior.

http://www.utexas.edu/research/ctr/pdf_reports/0_5706_1.pdf

Determining More Effective Approaches and Materials for Grouting Shear Keys

The Pennsylvania Department of Transportation (PennDOT) has released a report that explores design and construction practices that may reduce shear key grout failure (cracking) in PennDOT precast box beam bridges.

ftp://ftp.dot.state.pa.us/public/pdf/BPR_PDF_FILES/Documents/Research/Complete%20Projects/Improving%20Pennsylvania%20Bridges/Approaches%20for%20Grouting%20Shear%20Keys%20of%20Adjacent%20Box%20Beams.pdf

Research Pays Off: Creating Environmentally Sound Specifications for Culvert Rehabilitation: Virginia Applies Findings for Cured-in-Place Pipe Repair

Styrene, a common component in cured-in-place pipe (CIPP), can be toxic to aquatic species and is classified as a potential carcinogen by the Environmental Protection Agency (EPA); however, the potential environmental impacts of CIPP repair have been little investigated. The Virginia Department of Transportation (DOT) tasked the Virginia Transportation Research Council (VTRC) to evaluate the impacts of styrene-based CIPP repair on water quality. The research confirmed that discharges of styrene into the environment were occurring during styrene-based CIPP installations. The findings highlighted the need for more stringent controls of the installation process to prevent impacts to aquatic species and associated violations of water quality. The research findings also served as a foundation for candid discussions with industry representatives in the search for achievable process modifications that would satisfy environmental requirements.

Follow-up research revealed that lack of control over cure variables increased the chances of inadequate liner cure, potentially jeopardizing the structural strength and durability of the finished product. The research and the actions taken by Virginia DOT have generated attention from other states with similar concerns about styrene-based CIPP and other pipe repair technologies and have prompted several transportation agencies to review their pipe repair specifications more closely.

<http://onlinepubs.trb.org/onlinepubs/trnews/trnews268RPO.pdf>

Determining More Effective Approaches for Grouting Shear Keys of Adjacent Box Beams

The Pennsylvania Department of Transportation (PennDOT) has released a report that explores design and construction practices that have the potential to reduce shear grout failure (cracking) in PennDOT precast box beam bridges.

ftp://ftp.dot.state.pa.us/public/pdf/BPR_PDF_FILES/Documents/Research/Complete%20Projects/Improving%20Pennsylvania%20Bridges/Approaches%20for%20Grouting%20Shear%20Keys%20of%20Adjacent%20Box%20Beams.pdf

Inspection Methods to Determine Non-Visible Corrosion of Prestressing Strands in Concrete Bridge Components: Task 3 – Forensic Evaluation and Rating Methodology

The Pennsylvania Department of Transportation has released a report that explores whether visual inspection techniques or currently available non-destructive testing technologies will allow for accurate identification of non-visible corrosion of prestressing strands.

ftp://ftp.dot.state.pa.us/public/pdf/BPR_PDF_FILES/Documents/Research/Complete%20Projects/Improving%20Pennsylvania%20Bridges/Non%20Visible%20Task3-Report-09-10.pdf

Feasibility Study of Mobile Scanning Technology for Fast Damage Detection of Rural Bridge Using Wireless Sensors

The Upper Great Plains Transportation Institute at North Dakota State University has released a report that explores the feasibility of using wireless sensors as a means to detect damage to rural bridges.

<http://www.mountain-plains.org/pubs/pdf/MPC10-219.pdf>