

MOVING FORWARD



“He who does not look ahead, remains behind.” (Spanish Proverb)

Ohio Department of Transportation, Office of Research and Development

2007 Volume 2

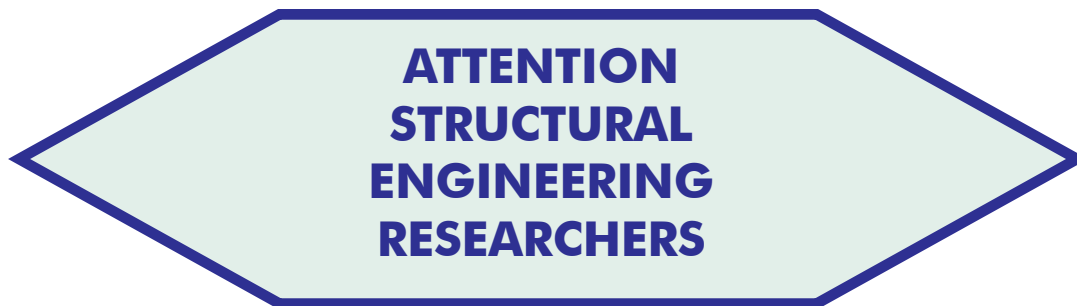
Special Request for Proposals

ODOT's Office of Research and Development is issuing a special Request for Proposals for the following study:

PS – 08-11 Structural Evaluation of LIC-310-0396 Box Beams with Advanced Strand Deterioration

The detailed RFP can be obtained from our website at <http://www.dot.state.oh.us/divplan/research/announcements/announcements.htm>. Formatting and submission guidelines are also available on-line at <http://www.dot.state.oh.us/divplan/research/Forms/forms.htm>. The deadline for submitting a proposal is **4:00 PM (EST) on August 3, 2007**. All submissions must be **received** by this time. ***Absolutely no late proposals will be accepted. No extensions or exceptions will be made to this deadline.*** Non-compliance with the formatting and submission guidelines is cause for the rejection of a proposal. Proposals for studies other than the one listed above are not being considered at this time.

All questions concerning this RFP, including technical clarifications of the project and formatting and submission of proposals, should be directed to the Office of Research and Development at research@dot.state.oh.us or 614-644-8135. Clarifications will be posted to our website as they become available.



NCHRP Revises Contract Liability Statement

Since many state universities and colleges were prohibited by state law from signing contracts with a “hold harmless” clause, they were unable to compete for NCHRP projects. The NCHRP liability statement has recently been updated with these institutions in mind. The new revision states that the “hold harmless” clause “shall apply to the full extent permitted by applicable State law.” For specific details and further information on NCHRP proposal preparation, please visit: <http://www.trb.org/NotesDocs/ProposalPrepNCHRP.pdf>

Fiscal Year 2008 RFP Results

The following proposals have been selected by the ODOT Research Selection Committee and forwarded to the Federal Highway Administration for final approval. Once this approval has been obtained, notification letters will be sent to all principal investigators who submitted a proposal to OPREP 2008 and the FY2008 RFP. Thank you for your interest in Ohio's transportation research program.

- PS-08-01 Benefit Cost Models to Support PMS Decisions - **University of Toledo – Dr. Eddie Chou**
- PS-08-02 Sensitivity of Four-Step versus Activity Based Models to Transportation System Changes
- **University of Texas at Austin – Dr. Chandra Bhat**
- PS-08-03 Identification and Evaluation of Pavement-Bridge Interface Ride Quality Improvement and
Corrective Strategies - **Iowa State University – D. Brent Phares**
- PS-08-04 Development of a TL-3 Deep Beam Tubular Backup Bridge Rail - **Texas Transportation
Institute – Dr. Akram Abu-Odeh**
- PS-08-05 Review of Traffic Monitoring Factor Groupings and Determination of Seasonal Adjustment
Factors for Cars and Trucks - **University of Akron – Dr. Bill Schneider**
- PS-08-06 Access Database for SPR Part II Research Program Management - **Project was
withdrawn. ODOT's Division of Information Technology will conduct this work in-
house.**
- PS-08-07 Evaluation of Cone Penetrometer Testing (CPT) for Use with Transportation Projects -
Ohio State University – Dr. Patrick Fox
- PS-08-08 Effectiveness of Noise Barriers Installed Adjacent to Transverse Grooved Concrete
Pavement - **Ohio University – Dr. Lloyd Herman**
- PS-08-09 Crack Sealing: Database Analysis and Effects on Pavement Serviceability and Life -
Infrastructure Management & Engineering – Dr. Arudi Rajagopal

The RFP for the fiscal year 2009 research program and solicitation for OPREP 2009 will occur in January 2008.

AASHTO RAC Annual Meeting

The 2007 Annual Meeting of the AASHTO Research Advisory Committee (RAC), hosted by the Washington State Department of Transportation, will be held in Seattle, Washington on August 6-9, 2007. The RAC annual meeting provides an opportunity for the committee to conduct its annual business and to network with others interested in transportation research. Discussions will be focused on the status of national transportation research programs and what we need to do today to prepare for the long range future of transportation and transportation research. Specific sessions will cover research partnerships between departments of transportation and universities, research project management, and documenting the value of research. Sessions will also be provided for the AASHTO RAC Task Groups and AASHTO RAC Regions. Posters from University Transportation Centers within the RAC 4 area and from select national programs and RAC 4 will be displayed throughout the meeting. The meeting will conclude with a business meeting. For additional information, including the agenda and registration materials, visit the WA DOT website at www.wsdot.wa.gov/research/ and click on the 2007 AASHTO RAC Meeting link in the lower right-hand corner.

OPREP 2008 Project Selection

Two projects were selected to receive funding during fiscal year 2008 from ODOT's Partnered Research Exploration Program (OPREP).

Field Monitoring of Scour Critical Bridges: A Pilot Study of Time Domain Reflectometry for Real-Time Automatic Scour Monitoring System

Principal Investigator: Dr. Xiong (Bill) Yu

Research Agency: Case Western Reserve University (CWRU)

One out of every twenty five bridges in the United States is classified as scour critical. Between 1961 and 1991, more than 600 bridges have collapsed due to scour. The effectiveness of current scour countermeasures is still unclear. Collecting scour data directly from the field is necessary to improve the current specifications. Most existing field scour measurement equipment is not completely satisfactory for the following reasons: 1) It is not sufficiently rugged for field applications; 2) It does not provide real time monitoring during critical flood events; and 3) It is not automated. The development of an innovative real time scour monitoring system would bring important societal and economic benefits for the transportation community.

This research will develop and deploy a rugged and inexpensive Time Domain Reflectometry (TDR) real time automatic scour monitoring system. Innovations of this system include: 1) It will incorporate recently developed TDR electronics which are inexpensive, rugged, amenable to automation, and require low power consumption; 2) The scour measurement probe will be rugged and can be installed in the field using common installation procedures; 3) The monitoring system is rugged since no electronic components are submerged in water; 4) The system is fully automatic by use of a robust algorithm for scour signal analyses; and 5) The software of the scour monitoring system will feature a user-friendly interface.

GRL Engineers, Inc. will partner with CWRU in this effort.

Smart Sensor for Autonomous Noise Monitoring (SSAM)

Principal Investigator: Dr. Douglas Meegan

Research Agency: Applied Research Associates, Inc. (ARA)

Transportation noise has become a major source of environmental pollution. To establish existing noise levels and evaluate the true impact of roadway or airport modifications, it is necessary to measure and monitor the associated noise carefully and understand the sources and propagation of noise. Existing wayside measurement techniques cannot be used to conduct noise measurements at multiple locations or over extended time periods due to cost and logistical considerations. There is a need for new technologies that will facilitate cost-effective noise measurement and monitoring in multiple scenarios and at multiple locations over extended periods of time.

The approach developed in this study could provide simultaneous noise measurements at hundreds or thousands of locations, providing more data at a fraction of the cost. This will be accomplished by distributing small, inexpensive wireless smart sensors at points of interest. The sensors will be programmed to periodically (e.g. hourly) report the noise metrics to a central receiving station. The objectives of this work are to design, fabricate, and test a set of prototype SSAM devices and successfully demonstrate their use and advantages as compared to existing methods of traffic noise monitoring.

The National Cooperative Highway Research Program (NCHRP) Innovations Deserving Exploratory Analysis (IDEA) Program will partner with ARA in this effort.

For more information on the OPREP program, please refer to chapter 3 of the RD&T² Manual of Procedures.

Evaluation of Effectiveness of Strategic Initiative 9 Pilot Bridge Concepts

By: Dr. Richard Miller, University of Cincinnati

The US Interstate Highway System is celebrating its 50th anniversary. In the past 50 years, the Interstate System has created a vital lifeline for the nation. Each year, the amount of vehicle traffic and commercial traffic increases. After 50 years, the Interstate System is now at a point where many sections need expansion, repair and/or replacement. Closing sections of the Interstate Highways is not an option and even restricting one or more lanes for repair causes major traffic difficulties. The operative words in highway repair are “maintenance of traffic” (MOT).

Bridges are a significant challenge to MOT. They are usually more difficult to repair, replace or widen than pavements and, as a result, bridges are usually critical path items. The American Association of State Highway and Transportation Officials (AASHTO) established a Technology Implementation Group (TIG) to study and implement rapid bridge construction techniques (see www.aashtotig.org).

The Ohio Department of Transportation funded the study “Evaluation of the Effectiveness of Strategic Initiative 9 Pilot Bridge Concepts” to find better ways to construct bridges. Strategic Initiative 9 (SI-9) identified six innovative construction concepts and six innovative contracting methods which could reduce the amount of time a bridge under construction was closed or was under lane restrictions. While this research is progressing, the possibility exists that ODOT Districts might identify additional concepts. The main goal of this research consists of studying six pilot projects, which will determine if some of these concepts are feasible, cost effective, and capable of achieving a significant reduction in the down time of the bridge. Another goal of the project is to improve bridge construction techniques so there would be less of a need to repair or replace bridges in the future. This project is a joint effort between the University of Cincinnati, E. L. Robinson Engineers, HNTB, Inc., and Ohio Ready Mixed Concrete Association.

The pilot bridge construction projects are: GUE-513-01.80, PIC-22-16.98, CLI-730-17.90, MOT-70-14.21, FAI-22-15.88, and HAN-75-15.99. Following are highlights of the research.



GUE-513-01.80 located in Quaker City, Ohio

This bridge was a superstructure replacement. The contractor had to meet a tight schedule as reconstruction had to take place between the end of the school year and the start of summer school classes in July. The bridge also needed to be completed before the Ohio Hills Folk Festival, which is held each July and is a major revenue source for the town. The contractor was able to complete the bridge in just 19 days.

SI9 Pilot Bridge Concepts - Continued from page 4

The bridge is a unique design. It is a precast, post-tensioned two span slab bridge. Composed of 12 individual panels (6 in each span), the bridge had two 30-foot long, 44-foot wide spans. The individual panels were cast as reinforced elements with both longitudinal and lateral post-tensioning ducts. Post-tensioning strand was used. After grouting the joints, the panels were laterally post-tensioned together to achieve transverse continuity. Precast barriers were post-tensioned to the fascia panels at this time. The panels were then longitudinally post-tensioned together to create a continuous for live load, two span bridge.

PIC-22-16.98 located in Circleville, Ohio, on Route 22 over the Scioto River and an adjacent flood plain

This bridge is a six-span, slab-on-steel-stringer bridge with a deck width of 44' supported by five girders. It was estimated that conventional methods would have required from 12 to 18 months of construction. Using accelerated methods, ODOT estimated that the bridge could be reconstructed with a closure period of 45 days. The contract allowed for a closure period of 60 days and included liquidated damages ranging from \$20k to \$50k per day for being late, but also provided an incentive of \$50k per day, up to a maximum of \$500k, for being early. The original estimate for the project was \$5M but the winning bid came in at \$2.7M. To accelerate the project, the design team elected



to use existing foundations but removed the existing concrete piers by saw-cutting and replacing them with prefabricated steel piers. The abutments of the structure are integral. One of the innovative construction technologies implemented was to incorporate High Performance Steel girders that were simply supported for dead loads but were made continuous for live loads through the use of a continuous slab. By having all parties committed to minimizing the impact on the local community, the bridge was replaced with a closure period of only 50 days, the contractor was awarded the full contract incentive, and ODOT had a successful project.

CLI-730-17.90 located in Wilmington, Ohio; MOT-70-14.21 located on Interstate 70 at Dayton International Airport; FAI-22-15.88 located in Lancaster Ohio

All three sites are adjacent prestressed concrete box girder bridges; and the goal was to improve the performance of these box girders. Adjacent box girder bridges are economical and provide a favorable span-to-depth ratio. However, shear keys between adjacent girders may leak due to cracks. To combat shear key cracking and leakage, the boxes were laterally post-tensioned, as is the practice in many states. These bridges also use integral wearing surfaces, created by placing additional concrete on the top of the boxes rather than using an asphalt surface.

- Continued on Page 7: SI9 Pilot Bridge Concepts -

TRB's Transportation Research Records Online

The Transportation Research Board's (TRB) Transportation Research Record (TRR) Journal contains technical papers prepared by researchers that are peer-reviewed by TRB committee members. Selected papers from TRB annual Meetings, along with papers from other sources and conferences can be found in the journal. The TRR Journal Online website now provides electronic access to the full text of over 7,600 papers that have been published as part of the TRR Journal series since 1996. The website includes enhanced search and analysis technology, refined navigation capabilities, e-mail and RSS alerting. The site is also regularly updated as new TRR Journal papers become available.



Anyone is eligible to use this resource to review the abstracts of any paper in the database. However, to access the full text of papers, you must be a subscriber or an employee of an organizational TRB sponsor. Employees of state departments of transportation and other organizational sponsors of TRB receive free access to the full text of every paper as part of their organization's sponsorship package. The system provides access to this group of users through the authentication of their Internet Protocol or IP address. Therefore, free access to the full text of papers is only provided to employees when they are working from a computer that is part of their organization's network. Employees working from home will be able to search and view abstracts of papers, but they will not have access to the full text of the papers unless they are on a virtual network of the TRB sponsoring organization.

TRB E-newsletter

To keep you informed of new releases, TRB announces new publications in the TRB weekly e-newsletter along with a link to the documents. Nearly every TRB publication is posted on their website as soon as it is released. To begin receipt of the e-newsletter, send an e-mail to rhouston@nas.edu with "TRB E-Newsletter" in the message's subject field. You may also search for past E-Newsletter items by keyword, function, or mode at <http://trb.org/news/default.asp>. Hard copies of publications may be obtained from the TRB Publications Sales Department at TRBSales@nas.edu or 202-334-3213.

OTEC 2007

The Ohio Transportation Engineering Conference (OTEC) is a two-day conference attended by over 2,400 people from across the state of Ohio. OTEC 2007 marks the 61st annual meeting of this statewide conference. Co-sponsored by the Ohio Department of Transportation and The Ohio State University, OTEC addresses current issues in transportation policy, planning, design, construction, maintenance, operations, local government, and management of transportation resources.

The theme for OTEC 2007 is: "The Ohio Transportation Network: A Gateway to Economic Growth." It goes without saying that an efficient transportation system is a catalyst for attracting business and industry within a region. As Ohio's transportation system continues to grow and improve, it will no doubt attract and retain organizations that desire to take full advantage of well-planned interstates, numerous ports and railroads and aviation centers around the state. Sessions related to this theme will be highlighted at the conference. Other sessions covering Structures, Pavements & Materials, Traffic/Safety, Administration & Management, Multi-Modal Planning & Environmental Issues, Construction, GeoTechnical and Infrastructure Assurance will also be offered. The results of several ODOT research projects will be showcased in many of these sessions.

- Continued on Page 7: OTEC 2007 -

SI9: Pilot Bridge Concepts - Continued from Page 5

HAN-75-15.99 located over I-75 in Findlay, Ohio

This was a 170-foot long, single span, steel stringer bridge. The innovative feature was the use of precast, prestressed deck panels. The 10-foot wide panels were cast as reinforced elements and then longitudinally post-tensioned prior to shipment (the panels were placed with their longitudinal axis perpendicular to traffic). Once shipped to the site, the panels were erected in one evening on temporary shims on top of the girders. After grouting all of the joints between the panels, the panels were laterally post-tensioned (this post-tensioned the panels in the direction of traffic). Strain gages in the joints showed that all of the joints compressed by the amount expected by the design engineer. The panels were held to steel beams using studs in grout pockets cast into the panels. The grout pockets and the haunches beneath the panels were grouted after the post-tensioning operations were complete. The deck was ground to profile. Subsequent load testing showed that the panel behaved as composite with the steel beams.



Recent inspection showed that no cracks had occurred in the joints.

One of the most important findings in this research is that building bridges faster, smarter and better is not just a matter of technology, but also a matter of changing the long held ideas of personnel and Department policies. On some of the projects, the ODOT site engineer was given much greater latitude to make decisions without the need to go back to the District or Central Office. Because of this, critical decisions were made quickly and without impact on the construction schedule. ODOT and the contractors also formed successful partnering relationships which contributed to the success of many of the projects. Changes in ODOT procedures also helped. In the post-tensioning jobs, allowing field approval of the post-tensioning process meant that the post-tensioning could be accomplished in one day without sacrificing quality.

SI-9 has had many successes. It shows that with the correct application of technology, contractor incentives and changes in attitudes and policies, it is indeed possible to “Build Bridges Smarter, Faster and Better.”

OTEC 2007 - Continued from page 6

This year’s Conference marks the eighth edition of the successful Student Sponsorship Program, which matches Ohio college/university students from transportation-related disciplines with leading organizations throughout the Ohio transportation industry. During the Conference, students “shadow” representatives of sponsoring organizations, learning about the roles and contributions of the sponsoring organization in the transportation industry. In addition, the student can attend OTEC sessions with his/her sponsor, as well as visit the exhibit displays from over 200 commercial exhibitors and Ohio universities to gain a first-hand look at how the various aspects of the industry interact and support each other.

For more information on OTEC 2007, visit the conference website at <http://www.otecohio.org/>.

University Transportation Center Program

The vision of the University Transportation Center (UTC) Program is to create internationally recognized centers of excellence, fully integrated within institutions of higher learning, that serve as vital sources of leaders who are prepared to meet the nation's need for safe, efficient and environmentally sound movement of people and goods. The program strives to advance U.S. technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research and technology transfer at university-based centers of excellence.

Goals of the program include:

1. Education: a multi disciplinary program of course work and experiential learning that reinforces the transportation theme of the Center.
2. Human Resources: an increased number of students, faculty and staff who are attracted to and substantively involved in the undergraduate, graduate and professional programs of the Center.
3. Diversity: students, faculty and staff who reflect the growing diversity of the U.S. workforce and are substantively involved in the undergraduate, graduate and professional programs of the Center.
4. Research Selection: an objective process for selecting and reviewing research that balances multiple objectives of the program.
5. Research Performance: an ongoing program of basic and applied research, the products of which are judged by peers or other experts in the field to advance the body of knowledge in transportation.
6. Technology Transfer: availability of research results to potential users in a form that can be directly implemented, utilized or otherwise applied.

Four Universities in Ohio have been designated as Tier II centers, receiving a \$500,000 per fiscal year earmark in fiscal years 2006 – 2009:

University of Toledo

Intermodal Transportation Institute

Partners: Bowling Green University and Wayne State University

Theme: Transportation for Economic Security & Development: Alternate Energy, Infrastructure Utilization, & Supply Chains

Safe, secure, and efficient transportation systems are essential to the economic viability, quality of life, and strength of our nation. If the U.S. economy is to reach new heights, the transportation system must be capable of moving people and goods safely, quickly, and efficiently. This Center focuses on three critical elements in the transportation system: alternate energy for transportation, infrastructure utilization, and supply chain management. The University of Toledo and the UT Intermodal Transportation Institute specifically, will play a regional leadership role in developing improved intermodal supply-chain systems and alternative transportation methods and technologies such as hybrid-electric, fuel cell and bio-diesel technologies.

Youngstown State University

Center for Transportation & Materials Engineering

Early interest was expressed in pursuing materials engineering and advanced manufacturing, but this center is still in the process of defining its strategies.

Cleveland State University

Cleveland State University Transportation Center

Theme: Highway Work Zone Safety & Efficiency

The UTC for Work Zone Safety at Cleveland State University provides training, education, and research focused on highway construction safety. From training certification courses for industry to transportation-related degree programs for the future engineering workforce, the UTC strives to be the primary resource for preparing transportation personnel to effectively and safely rehabilitate our nation's highway infrastructure.

University of Akron

Ohio Transportation Consortium

Partners: University of Cincinnati, Ohio University, University of Dayton, Case Western Reserve University, Central State University, Ohio State University

Theme: Transportation Mobility & Infrastructure Management

This consortium was organized to optimize Transportation Mobility and Infrastructure Management by pooling the excellence of knowledge and expertise currently existing at institutions of higher learning in Ohio.

University Transportation Center Program - Continued

Other UTCs with Ohio based partners include:

Region VI Center: Purdue University

Theme: Integrated Solutions for Mobility, Safety and Infrastructure Renewal

Major Partners: Ohio State University and University of Illinois at Urbana-Champaign

Partners: Martin University, University of Wisconsin at Platteville, Wayne State University, IUPUI, Illinois Institute of Technology

The NEXTRANS Center vision is to foster a new generation of paradigms and a highly qualified workforce that can develop innovative and integrated solutions for mobility, safety, and infrastructure renewal with a special emphasis on intermodal freight transportation to address regional needs and economic opportunities.

University of Detroit Mercy

Theme: Alternate Energy and System Mobility to Stimulate Economic Development

Michigan-Ohio University Transportation Center

Partners: University of Toledo, Bowling Green University, Wayne State University & Grand Valley State University.

MI-OH UTC will employ a strategy of “transportation as a vehicle for economic development” through the development of knowledge, education and technology transfer. The Center’s initial three focal areas are:

1. Alternate Energy: Continuing dependence on high-cost, non-renewable fossil fuels imported from politically unstable regions of the world is a threat to the future development, security and effective use of the transportation network in the U.S. The UTC will focus on research and commercialization to develop and distribute renewable, homegrown, low-polluting energy sources to support transportation.
2. Infrastructure Utilization: Growing demand for transportation is stretching current infrastructure to, and in many cases beyond, its capacity. By 2020, the demand for moving freight is expected to increase by more than 50%. Expanding infrastructure, by itself, may not be an effective solution because it is expensive and consumes valuable land that could be used for agriculture, recreation and commerce.
3. Supply Chains: The emergence of supply chains and sophisticated distribution systems is placing new demands on transportation. Understanding transportation’s role in this new paradigm and adapting the transportation systems to meet the needs of suppliers, manufacturers and customers is fundamentally important for economic development.

AASHTO RAC Member Survey Results

The American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Research (SCOR) and its Research Advisory Committee (RAC) maintain a website that serves as a reference tool to document operational procedures, membership rosters, coming events, links to other sites, and current committee activities. One very useful tool that can be found there is a link to AASHTO RAC member survey results. Any RAC member may submit a survey to all other RAC members. Many of the results are summarized and posted by general subject area at <http://research.transportation.org/?siteid=55&pageid=859>. When the ODOT Office of Research and Development receives these surveys, they are forwarded to the appropriate subject matter experts for response. To those who have contributed in the past, we thank you for your submissions, and we encourage all who receive these requests to continue to respond in order to ensure the ongoing success of this program. Anyone who wishes to submit a brief survey to the AASHTO RAC may do so through the Office of Research and Development.



Final Reports Available on the WWW

Final reports for research projects completed since 2000 are available on our website. Visit <http://www.dot.state.oh.us/research/default.asp> to get a copy of the following reports received since the last newsletter and many others:

Hydraulics

Topic 7: *A Streamflow Statistics (StreamStats) Web Application for Ohio*, USGS (October 2006)

Maintenance

Topic 3: *Effectiveness of RWIS Bridge Temperature Simulators*, Ohio University (May 2007)

Materials

Topic 15: *Evaluation of High Absorptive Materials to Improve Internal Curing of Low Permeability Concrete*, Cleveland State University (March 2007)

Topic 16: *A Comparative Evaluation of Corelok Device in Determining Reliable Bulk Gravity and Maximum Gravity Test Results*, Infrastructure Management & Engineering, Inc. (April 2007)

Pavements

Topic 44: *Evaluation of Pavement Performance on DEL-23*, Ohio University (March 2007)

Topic 45: *Use of Dynamic Cone Penetrometer in Subgrade and Base Acceptance*, Ohio University (April 2007)

Topic 46: *Evaluation of Drainable Bases Under Asphalt Pavement*, University of Akron (May 2007)

Planning

Topic 13: *Upper MidWest Freight Corridor Study - Phase 2*, University of Wisconsin-Madison (March 2007)

Safety

Topic 7: *Crash Reduction Factors for Education and Enforcement Strategies in Ohio*, Ohio University (May 2007)

Structures

Topic 51: *Predicting Fatigue Lifetime From Strain Histograms Observed in an Abbreviated Time Window*, Case Western Reserve University (December 2006)

Topic 52: *Monitoring of Bridge Abutment Walls at S.R. 33 Over E. State Street (Athens, Ohio)*, Ohio University (March 2007)

Topic 53: *Dynamic Pile Testing Technology: Validation and Implementation*, University of Akron (May 2007)

Traffic

Topic 18: *Axial Force History in End Web Diagonal (kips) Investigation of the Dayton IR 75 Sign Truss Failure of 9/11/06*, Case Western Reserve University (March 2007)



CRS 2007
August 30, 2007
See insert for details

Calendar of Events

July - 2007

July - Quarterly progress reports due for all active research projects

July 2 - Strategic research plan update due to ODOT R&D

July 4 - Independence Day - ODOT Closed

July 27 - Deadline for non-PDF paper submittal to 2008 TRB Annual Meeting - For more information visit <http://www.trb.org/meeting/>

August - 2007

August 1 - Deadline for PDF paper submittal to 2008 TRB Annual Meeting - For more information visit <http://www.trb.org/meeting/>

August 3 - Deadline for proposal submission to special RFP for PS-08-11 (4:00 PM EDST)

August 6-9 - AASHTO RAC Annual Meeting, Seattle, WA - For more information visit www.wsdot.wa.gov/research/

August 30 - Cooperative Research Seminar 2008, Columbus, Ohio - For more information contact ODOT R&D at research@dot.state.oh.us

September - 2007

September 3 - Labor Day - ODOT Closed

September 5-6 - TRB Staff Annual Field Visit to ODOT

October - 2007

October - Quarterly progress reports due for all active research projects

October - FY 2009 RFPs for RSC consideration due to ODOT R&D (*Internal Submissions Only*)

October 8 - Columbus Day - ODOT Closed

October 9-19 - Research Project Review Sessions - For more information contact Omar Abu-Hajar at research@dot.state.oh.us

October 23-24 - OTEC 2007, Columbus, Ohio - For more information visit <http://www.otecohio.org/schedule.htm>

November - 2007

November - RSC meets to select and prioritize research needs for fiscal year 2009

November 1-2 - AASHTO SCOR Meeting, Las Vegas, NV

November 12 - Veterans' Day ODOT Closed

November 22 - Thanksgiving Day - ODOT Closed

December - 2007

December - Program offices submit revised RFPs to ODOT R&D for annual solicitation in January

December 25 - Christmas Day - ODOT Closed

For information on TRB Sponsored Conferences and Workshops go to <http://trb.org/calendar>



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