CSS National Dialog Kicks Off in Texas

The Federal Highway Administration, in partnership with CTE, on October 20 convened its first Context Sensitive Solutions (CSS) National Dialog workshop in Austin, TX. Held at the Texas DOT building, the one-day workshop brought together nearly 90 transportation professionals from the region to discuss how CSS is a key strategy to deliver outstanding projects, generate high quality plans, and develop agency-wide programs to improve transportation outcomes.

Participants learn from a panel of experts during the CSS National Dialog in Austin, TX. The workshop brought together transportation professionals from the region to discuss how employing CSS principles can help improve transportation outcomes.

CSS is a collaborative, interdisciplinary approach to planning, designing and implementing transportation facilities. The approach involves all stakeholders in developing infrastructure that fits the physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.

Participants at the Austin workshop represented state, federal and local governments, and the private sector as well as university affiliates and NGOs. CTE associate director James Martin, PE and research associate Ann Hartell welcomed participants and facilitated the program.

Jan Weingart Brown, FHWA Division Administrator for Texas, opened the session and emphasized that CSS is integral to sustainability and better values in transportation solutions.

ICOET Addresses Environmental Changes and Challenges to Transportation

Adapting transportation systems and solutions to a changing environment – including global climate, political and economic challenges – was the focus of the fifth biennial International Conference on Ecology and Transportation (ICOET), held September 13-17, 2009 in Duluth, MN.

Organized and co-sponsored by CTE, ICOET 2009 brought together more than 400 participants from 16 countries to share current knowledge and showcase best practices in transportation and the ecological sciences. This year’s conference program included over 120 technical and poster presentations by transportation and natural resources experts, and featured two field trips conducted by the Minnesota Department of Transportation (Mn/DOT) which co-hosted the event.

Brown encouraged attendees to engage fully in the Dialog. “Successfully building consensus in the decision-making process begins with discussions on how we can partner, how CSS fits in with traditional framework, how it works or doesn’t work,” said Brown.”

David Carlson of FHWA’s Sustainable Transport and Climate Change Team provided an up-to-date overview of CSS from the federal perspective, and served as moderator for the workshop discussions. Carlson reported that CSS efforts are “alive and well” nationally, adding that CSS activities are receiving significant support and funding through the Surface Transportation Environment and Planning Cooperative Research Program (STEP). “CSS is a significant element in sustainability and livability,” said Carlson. “Community livability is enhanced by CSS. It delivers on livability aspects by developing partnerships with Complete Streets and Smart Growth ideas.”

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CTE associate director James Martin, PE (right) thanks Mn/DOT Director of Environmental Services Frank Pafko for his department’s support of ICOET 2009. Martin, Pafko, and Duluth Mayor Don Ness (seated left) welcomed conference participants during the opening session.

More than 20 federal, state, university, non-profit and corporate sponsors supported the conference. The Federal Highway Administration, lead sponsor of ICOET, provided significant financial support in a tight budget year to enable many of the presenters and resource agencies to participate.

Paul Wagner, ICOET 2009 chair and Biology Branch Manager for the
Record National Audience Views Sustainable Communities Webcast

More than 1100 participants from all 50 states and Puerto Rico – a record number for CTE – registered to view the Center’s November 2009 national webinar on the ‘DOT-HUD-EPA Interagency Partnership for Sustainable Communities.’

The live webinar focused on a new and unprecedented partnership between the US Department of Transportation (US DOT), US Department of Housing and Urban Development (HUD), and the US Environmental Protection Agency (EPA). The partnership’s aim is to help families gain better access to affordable housing, more transportation options, and lower transportation costs by establishing ‘livability principles’ that will coordinate policy for federal transportation, environmental protection, and housing investments.

Presented in cooperation with the Federal Highway Administration and Federal Transit Administration, the two-hour program featured expert panelists Elizabeth Wilkins, White House Policy Assistant for Urban Affairs and Mobility and Opportunity; Beth Osborne, US DOT Deputy Assistant Secretary for Transportation Policy; Shelley Poticha, HUD Senior Advisor for Sustainable Housing and Communities; and John Frece, EPA Smart Growth Program Director.

Following their presentations, the panelists addressed questions submitted by email from participants representing federal, state, local, non-government and corporate agencies. Over 200 questions – also a record number – were submitted during the webinar. With limited time to answer questions live, the panelists responded in writing to most questions after the webinar.


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Washington State Department of Transportation, speaking at the Sept. 14 opening session, noted that this year’s conference theme ‘Adapting to Change’ certainly reflected the times for transportation professionals. “The environmental challenges that come with addressing transportation needs seem more urgent and more complex, requiring innovation and adaptation,” said Wagner. “Your participation here at ICOET is an important part of finding and sharing those successful adaptations.”

Conference technical sessions focused on a diverse range of issues including climate change; stakeholder involvement strategies; interagency partnerships; wildlife habitat connectivity, crossings design and prevention of wildlife-vehicle collisions; wetland mitigation and stormwater management, ecological considerations for bridges; and improving methods for data collection, modeling, and monitoring. ICOET also welcomed its first Native American Tribal presentation by Minnesota’s Fond du Lac Band of Lake Superior Chippewa, which presented on vegetation management along its reservation roadways.

Rick Ridgeway, Vice President of Environmental Initiatives for Patagonia Inc., gave keynote remarks on ‘Freedom to Roam,’ a campaign to protect wildlife corridors that connect crucial animal habitats.

Other highlights included the 2009 FHWA Environmental Excellence Awards ceremony, and screening of the documentary film, ‘Division Street’. The field trips showcased Mn/DOT’s progressive work in environmental stewardship including reconstruction of the ecologically sensitive North Shore Scenic Byway along Lake Superior.

Proceedings of the conference, videos of presentations, and additional information from ICOET 2009 are available on the conference website at www.icoet.net/ICOET2009.asp.
**CTE/NCDOT Environmental Research Project Profile**

CTE assists the North Carolina Department of Transportation with promotion and distribution of its environmental research results to the transportation and environmental community at large. NCDOT funds one of the largest environmental research programs in the country. A final report for the following research project has been released and is available online.

**Platinum and Lead Markers as Indicators of Transportation Impact**

**Principal Investigators:** Dr. W. Gregory Cope, Dr. Thomas J. Kwak, and Dr. Damian Shea, North Carolina State University

**Project Period:** July 2006 – June 2009

The intent of this study was to provide information necessary to characterize the present concentrations of an emerging transportation related contaminant, the Platinum Group Metals (PGM), and to provide background information necessary to explore the potential uses of these metals as a specific marker of transportation related contamination that results from the discharge of road runoff into streams. Thirty-seven road crossings were evaluated in the Atlantic Slope of central North Carolina. Mussel tissue and sediment samples were collected from upstream and downstream of each road crossing. Samples were analyzed for Platinum (Pt), as well two other common transportation pollutants, Lead (Pb) and Cadmium, and a common atmospheric pollutant, Mercury. The enrichment of pollutants (downstream concentration – upstream concentration) was compared to the number of vehicles crossing the stream. Local stream environmental variables and landscape scale variables were used to model the concentration of Pt in mussel tissue. Two 28-day laboratory toxicity tests, one with Pt and one with Pb, were conducted to assess the potential threat that current concentrations of these metals pose to native mussel fauna. The correlation of enrichment of the metals at bridge sites was weak for all metals studied. We hypothesize that complex hydrologic alteration caused by highway crossing structures was responsible for increased variation in downstream samples. Multiple samples taken from a single stream over an 8 km stream reach indicated that Pt concentrations in mussel tissue and sediment was enriched downstream of a road crossing, but the enrichment was not uniform and enrichment does not peak for several kilometers downstream from the source. Results from the 28-day tests indicated that PGM may not pose an immediate threat to adult mussels and that mussels are a good sentinel species for studying PGM. The final report is available online at [www.ncdot.org/doh/preconstruct/tpb/research/download/2007-03finalreport.pdf](http://www.ncdot.org/doh/preconstruct/tpb/research/download/2007-03finalreport.pdf).

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Four case studies from the surrounding region were presented as examples of effective application of CSS principles. These included presentations by the City of Duncanville, TX, the Nevada Department of Transportation, the Capital Area Metropolitan Planning Organization, and the City of Austin. The four studies were selected from over 90 submissions to the Dialog received from 30 states, demonstrating a breadth and depth of understanding about CSS principles and growing expertise in applying those principles across the country.

CTE and FHWA are planning additional CSS workshops for the coming months at locations in Oregon, North Carolina, New Jersey, and Minnesota. The workshops are being fully documented on the Dialog’s website to facilitate an ongoing exchange of ideas and build momentum for wider implementation of CSS in the transportation industry. Future workshops also will be webcast live to enable broader participation.

To participate in the CSS National Dialog, and for more information, visit the project website [www.cssnationaldialog.org](http://www.cssnationaldialog.org) and contact CTE at 919-515-9351 or cssnationaldialog@ncsu.edu.

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**CTE Studies Innovative Public Art-In-Transit Partnership**

An engaging public art program enriches a community’s quality of life. Public art and public transit have been combined for decades and can be beneficial to the local arts community and to the transit agency, improving the visibility and images of both groups. When cost, space and other requirements for a large-scale public art program are out of reach for smaller cities and transit agencies, there are alternative strategies that can be effective.

CTE research associate Ann Hartell recently completed a case study of an ‘Art-On-The-Move’ program in Raleigh, NC. ‘Art-On-The-Move’ is a partnership between the city bus transit provider, Capital Area Transit System (CAT), and the city of Raleigh Arts Commission. The program displays original artwork by local artists as vinyl wraps on city buses. Art selected for wraps must meet guidelines on content acceptable for the CAT advertising program, and are displayed on the vehicles for a six-month period. The arts commission pays the artist stipends and all wrap costs.

Hartell’s study demonstrates how a transit agency can leverage its existing advertising program to establish a public art-in-transit program, even
What’s Coming Up?

CSS National Dialog Workshops
February 4, 2010 in Charlotte, NC
March 16, 2010 in Piscataway, NJ
April 22, 2010 in St. Paul, MN
www.cssnationaldialog.org

March 25, 2010
CTE Webcast on “Best Practices in Addressing NPDES and Other Water Quality Issues”
www.cte.ncsu.edu

June 6-10, 2010
TRB Environment and Energy Research Conference
Raleigh, NC
www.cte.ncsu.edu/cte/EEConference

For more information and future events, visit www.cte.ncsu.edu/cte/events.

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under strict local and state regulations. The study also illustrates a successful interagency partnership on which an expanded public art-in-transit program can be built in the future. Cities should consider this approach in their efforts to promote the city’s image, the local arts program, the visibility of transit, and the visual quality of their streetscapes.

The paper of the case study has been accepted for presentation at the TRB Annual Meeting in January, 2010, and is available online at www.itre.ncsu.edu/ITRE/research/documents/cte/ArtOnTheMove.pdf.

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CTE News & Notes is an update of the Center’s activities and other significant happenings in the area of transportation and the environment. For more information, or to submit material for this publication, contact:
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