ICOET Announces Call for Abstracts for 2009 Conference

The International Conference on Ecology and Transportation (ICOET) has issued its call for abstracts for the 2009 conference, to be held September 13-17 in Duluth, Minnesota. The ICOET program committee is seeking abstracts for technical papers and poster presentations that fit with the conference theme, “Adapting to Change.” Abstracts are being accepted through December 15, 2008.

The timely theme recognizes that transportation systems and ecosystems need to be addressed in the context of global climate change and shifts in transportation funding and priorities. Both natural and built environments are confronting changes that will unfold on multiple scales and impact many interrelated elements. The high degree of interaction between transportation infrastructure and natural systems requires increasingly interdisciplinary, integrated approaches to planning, building, maintaining and monitoring the health of these systems.

The ICOET 2009 program will focus on the challenges ahead as transportation and ecology professionals must adapt for future global climate changes, shifts in transportation demand and patterns, and evolving environmental and transportation policy. Visit www.icoet.net for a complete list of the 2009 topic areas, guidelines for authors, and additional conference information.

ICOET is a multi-disciplinary conference conducted biennially to identify and share quality research applications and best management practices that address wildlife, habitat, and ecosystem issues related to the delivery of surface transportation systems. ICOET is the primary forum for an international gathering of foremost experts in ecology and transportation to showcase effects, issues, and, most importantly, solutions. CTE is the lead organizer for the conference and has been an integral part of ICOET since its inception.

For more information about ICOET, contact James Martin (jbm@ncsu.edu / 919.515.8620), or Eugene Murray (eugene_murray@ncsu.edu / 919.515.8037).

Summer Academy Teaches Students About CSS Principles

CTE, in cooperation with North Carolina DOT, hosted its 2008 Context Sensitive Solutions (CSS) Summer Academy for undergraduate university students June through August. The annual course introduces students to the principles of CSS and teaches them how to apply this concept to transportation planning and project development.

The CSS Academy program is designed to enrich the summer NCDOT internship program and introduce the students to real-world CSS activities. Drs. John Stone and Joe Hummer, both of the Department of Civil, Construction and Environmental Engineering at North Carolina State University (NCSU), are the lead Academy instructors.

The 2008 Academy class consisted of 11 undergraduate juniors, seniors and graduate students from NCSU, North Carolina A&T, and The Citadel, preparing for careers related to transportation and the environment. These students also completed summer internships with NCDOT across the state.

The seven-week course, held at the Institute for Transportation Research and Education (ITRE) in Raleigh, includes classroom instruction as well as field trips to real-life examples of CSS. For their Academy project, the 2008 class investigated CSS activities during the construction phase of a random sample of North Carolina highway projects.

The students conducted interviews with project managers and analyzed construction documents to determine if...
CTE Studies Transportation Project Effects on Communities

In September 2008 the American Association of State Highway and Transportation Officials (AASHTO) released the report “Improved Methods for Assessing Social, Cultural, and Economic Effects of Transportation Projects.” This CTE study identifies existing and emerging community and social impact assessment measures that can be used as indicators of the quality of a community’s life. A range of measures and methods are described and demonstrated, through application to a case study, which can significantly improve the evaluation of community wellbeing. These methods are applicable to long-range planning, project scoping, Community Impact Assessment and NEPA analysis, and post-project evaluation.

The report provides an in-depth, cross-disciplinary literature review and interviews with scholars both outside and within the transportation profession to build on current Community Impact Assessment practice. Extensive notes and documentation on data sources and analysis techniques provide practitioners with a ready reference guide for implementation.

CTE conducted the study for AASHTO’s Standing Committee on Planning, working under subcontract to Cambridge Systematics. CTE researchers Leigh Lane and Ann Hartell produced the report, with additional contributions from Teresa Townsend, and ITRE’s Jeremy Scott and Greg Ferrara. John Suhrbier of Cambridge Systematics provided project oversight. The full report is available from the AASHTO Statewide Planning Website at www.statewideplanning.org/resource.php?id=234

CTE Contributes to NCHRP Research on Temporary Bridging Solutions

In September 2008 NCHRP released Research Results Digest 330, a digest of the report “The Use of Temporary Bridging to Avoid and Minimize Impacts to Waters and Wetlands During Highway Construction.” CTE’s James Martin and Katie McDermott recently prepared a guidebook to accompany the full report in collaboration with Mulkey Engineers and Consultants.

Construction projects over waterways frequently involve traffic detours or temporary construction access built into or completely across a stream. Current construction methods discharge fill, requiring state DOTs to expend significant resources on environmental permitting and compensatory mitigation.

An alternative practice is to use temporary bridging, such as floating or prefabricated bridging, or built-in-place structures. If temporary bridging is practicable in avoiding or minimizing impacts, there is an opportunity to protect the environment and reduce costs.

The NCHRP research provides a detailed look at state DOT practices in the use of temporary bridging, including results of a national Web-based survey and follow-up interviews with selected states to provide further context for the analysis of the survey responses.

As a companion to the report, the guidebook produced by CTE incorporates key information from the survey to present a straightforward set of criteria to assist decision-makers in their selection and use of temporary bridging for traffic detours or construction access. The guidebook provides an overview of the main types of temporary bridging, factors that influence their selection, a decision matrix for determining the applicability of temporary bridging types to various conditions, state examples of lessons learned, and recommendations for the future. A list of resources and contacts for more information is provided for additional reference at the end of the guidebook.

The guidebook and final report are scheduled for release by the Transportation Research Board in the coming months. Research Results Digest 330 is available on the TRB Website: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_330.pdf.

CTE News & Notes

Chart from the AASHTO report illustrating a Conceptual Framework for Community/Social Wellbeing Indicator. The report organizes the interactions that make up community wellbeing into three, overlapping domains: physical health, economic wellbeing, and social capital, defined as the social networks through which norms of reciprocity and trustworthiness develop.
CTE/NCDOT Environmental Research Project Profiles

CTE assists North Carolina DOT 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 recently released and is online at the CTE Website at www.cte.ncsu.edu/cte/research. Additional research information can be found on the NCDOT Website: www.ncdot.org/doh/preconstruct/tpb/research.

Ecological, Morphological, Micromorphological and Molecular Analyses of the Species in the Hexastylis Heterophylla Complex

Principal Investigator:
Zack E. Murrell, Ph.D.
Department of Biology
Appalachian State University; Boone, N.C.
Project Period: July 2001 – June 2003

Hexastylis, commonly known as Wild Gingers or Little Brown Jugs, is a group of eight species of perennial, stemless herbs found in loamy soils, especially on woodland slopes. Three species in the subgroup Heterophylla complex have been recognized by field biologists to have considerable morphological overlap. One such species, Hexastylis naniflora, is a federally threatened species found in the rapidly growing western Piedmont area of North and South Carolina. This project conducted field investigations across the range of the three species in the Heterophylla complex. Researchers performed an intraspecific analysis of Hexastylis naniflora based on analysis of soil, ecology, molecular characters and morphology, comparing populations in the Broad-Pacolet, Catawba, and Yadkin River drainages. This analysis provides information that can be used in future conservation and management efforts for H. naniflora. Link to the final report at http://cte.ncsu.edu/cte/downloads/research/Murrell-2002-04.pdf.

CTE Provides Web Streaming for Air Quality Videos

CTE recently provided Web streaming and archiving services for two U.S. Environmental Protection Agency Office of Air Quality Planning and Standards video broadcasts. Both programs are aimed at professionals in state, local, and Tribal air-pollution control agency personnel.

“Climate and Air Quality: Applications for Air Quality Professionals” explores possible impacts of climate change on air quality and how emissions of criteria pollutants may impact climate.

“Air Quality Data & Tools for Ozone Season & Beyond” focuses on new tools for conducting technical analyses and in communicating air quality information.

The EPA broadcasts are available from the CTE Website at: http://cte.ncsu.edu/cte/TechTransfer/Teleconferences/epabroadcasts.asp.

Awards and Accolades

In June 2008 NC State University’s Transportation Department presented its 2008 NCSU Pack Leader in Innovation award. Ann Hartell, CTE research associate, was recognized along with three ITRE co-workers, for her work with the Research Triangle Region Special Transit Advisory Commission. Co-honorees were Joe Huegy, ITRE program director for Travel Demand Modeling and Forecasting; and the Public Transportation Group co-director, Tom Cook, along with senior research associate, Jud Lawrie. The award was presented at the 2008 “Kick Gas Celebration” recognizing individuals and organizations for their efforts to promote alternative forms of transportation, Travel Demand Management programs, and workplace sustainability efforts.

(Awards, continued on Page 4)
What’s Coming Up?

December 15, 2008
Deadline for Abstracts: ICOET 2009
Conference Date: September 13-17, 2009
www.icoet.net

January 11-15, 2009
Transportation Research Board
88th Annual Meeting
Washington, D.C.
www.trb.org

May 3-6, 2009
NAEP Annual Conference
Scottsdale, Arizona
www.naep.org

May 5-8, 2009
12th National Mitigation and Ecosystem Banking Conference
Salt Lake City, Utah
www.mitigationbankingconference.com

For more information:
www.cte.ncsu.edu/cte/events

(Awards - continued from Page 3)

Ms. Hartell also was nominated for an NCSU 2008 Award for Excellence by the University’s Office of Research and Graduate Studies, and recognized at a March luncheon.

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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