NCHRP Report Addresses Use of Multi-Disciplinary Teams in CSS

The Transportation Research Board in February, 2008, released the report NCHRP Synthesis 373: Multi-Disciplinary Teams in Context-Sensitive Solutions produced by CTE. Leigh Lane, senior research associate headed up the project with contributions from CTE research associates Teresa Townsend, Brian Byfield, Harrison Marshall, and Ann Hartell.

The report focuses on multi-disciplinary teams as a strategy to fully represent community and environmental aspects in the transportation decision-making process. The synthesis documents state DOTs currently using such teams to develop Context Sensitive Solutions (CSS), noting best practices as well as areas for future study.

Results from the synthesis show that states value multi-disciplinary teams and realize tangible benefits of greater public acceptance, shared funding through partnerships, and expedited project delivery. Use of these teams is an effective strategy for a CSS approach to project development and delivery. The complete report is available online from the TRB website at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_373.pdf.

Web Developer Joins CTE Staff

CTE welcomed Nancy Bailey in February, 2008, as its new web developer and technology support analyst. Nancy oversees the CTE website and multiple client sites hosted by the Center. She also works with the Institute for Transportation Research and Education (ITRE) communications staff to support several ITRE websites. Nancy comes to CTE from Johnston Community College where she served as a software developer.

Nancy Bailey

Section of Utah State Route 12, a case study featured in the Synthesis. This project had a complex array of human and natural environmental issues that were addressed through a multi-disciplinary team process.

Photo ©1996 Max Bertola www.so-utah.com

Four case studies in the report showcase projects using multi-disciplinary teams that represent a wide range of stakeholders. These studies provide valuable lessons learned that can be transferred to other state DOT project development processes. Practical information on convening and using a multi-disciplinary team are described, including team composition, how team members are selected, integrating public involvement into team decisions, and the types of project that use multi-disciplinary teams.

CTE Continues NCDOT CSS Training

North Carolina DOT employees continue to benefit from CTE’s Context Sensitive Solutions (CSS) training. In 2008 the Center is conducting CSS training sessions that will reach some 160 NCDOT employees this year.

“Context Sensitive Solutions: A Better Way” is a three-day course developed by CTE for NCDOT. The in-depth training covers CSS approaches for planning, project development, and design through, construction, operations, and maintenance. Emphasis is placed on “quality of life,” which is critical to understanding context.

CTE trains NCDOT employees in CSS, a collaborative process which partners DOT professionals with other stakeholders to develop transportation solutions integrated with the environment and communities they serve.

Course participants learn from lectures, case study presentations, facilitated group discussions, and work on a case study project which exposes them to a variety of consensus-building techniques. This year, course materials were updated to include additional current examples of CSS application to projects in North Carolina.

Since 2003, CTE has delivered over 50 CSS courses to some 1500 NCDOT staff, local agencies and consultant groups. Four courses are on this year’s schedule from April – November. CTE staff James Martin, PE, Ann Hartell, and Walt Thomas provided instruction, course management, and administrative support for the training. At each class, Debbie Barbour, PE, NCDOT director of pre-construction, provides perspective on the importance of CSS to fulfilling the Department’s mission to the state.

For more information on CSS training, contact James Martin, CTE associate director, at jbm@ncsu.edu.

The Center for Transportation and the Environment is a university transportation center that seeks to mitigate the impacts of surface transportation development on the environment.
TRB to Publish CTE Research on Transportation and Social Capital

The research paper Is Inadequate Transportation a Barrier to Community Involvement? Evidence from Social Capital Benchmark Survey, by CTE research associate Ann Hartell, is accepted for publication in an upcoming issue of Transportation Research Record, the journal of the Transportation Research Board (TRB). The paper was previously presented at the 87th Annual TRB meeting in January, 2008.

Using data from a 2000 national survey, Hartell’s analysis finds that female, non-white respondents with household incomes below $30,000 and long commutes to work had increased odds of citing transportation as a barrier. Only 10% of the analyzed sample reported that transportation was a barrier, while most respondents cited other barriers such as inflexible work schedules, inadequate child care and concern for personal safety.

While some types of improvements to transportation systems and transit service could improve access to community activities, Hartell’s research suggests that improvements which seek to dismantle barriers to community involvement will need to be combined with policies and programs that address other types of barriers to achieve a measurable positive effect.

The Transportation Research Record is available online from the TRB website at http://trb.org/news/blurb_detail.asp?id=7420. For more information about this research, contact Ann Hartell at amhartel@ncsu.edu or 919-515-9351.

CTE Contributes to MPO Report on Regional Transit Investments

In May, 2008, the Special Transit Advisory Commission (STAC) released its final report prepared by CTE and the Institute for Transportation Research and Education (ITRE). Convened by the two Metropolitan Planning Organizations (MPOs) in North Carolina’s Research Triangle region, the STAC was tasked to develop transit recommendations for the MPOs’ current long-range transportation planning.

The report recommends enhancing region-wide bus networks, circulator services for major activity centers, and rail connections. It also provides an implementation strategy that addresses funding, linking land use with transit, and a regional decision-making approach to transit. The report positions transit as an important investment in addressing the region’s economic, community, and environmental issues.

Coordination, logistics, and documentation support were provided by the STAC final report lays out a 30-year strategy for regional transit.

CTE’s Ann Hartell and Walt Thomas working in partnership with ITRE. Phil Boyle, PhD, of Leading and Governing Associates, served as facilitator for the process. The final report is available online at www.transitblueprint.org.

CTE Documents High Speed Rail Summit Proceedings on Video

Rail industry leaders and government officials met recently in Raleigh, North Carolina to discuss the future of high speed rail service in east coast rail corridors. CTE provided technical support to document the proceedings on video and DVD.

The day-long summit entitled “High Speed Rail for the East Coast – It’s Time,” held in October, 2007, focused on the connection between passenger and freight rail in east coast corridors. Discussion panels throughout the day featured national and international rail transportation experts who examined technical, policy and funding issues related to these corridors.

Syndicated columnist Neal Peirce, and Wisconsin Secretary of Transportation Frank Busalacchi, were among 20 speakers participating in the event attended by over 200 transportation professionals and interested public. US Reps. David Price (D-NC), James Oberstar (D-MN) and John Mica (R-FL) participated by video and audio conference from Washington, DC.

CTE’s Eugene Murray worked with the Women’s Transportation Seminar North Carolina Triangle Chapter, lead organizer of the summit, to plan technical logistics, provide video recording services, and archive the proceedings for DVD and web streaming.
CTE/NCDOT Environmental Research Project Profiles

CTE assists North Carolina DOT with communication of its environmental research results to the transportation and environmental community. Final reports for the following projects have been released and are available from the CTE website at www.cte.ncsu.edu/cte/research. Additional information is found on the NCDOT website at www.ncdotorg/doh/preconstruct/tpb/research/program.html.

Evaluation of Herbicides and Application Timing for Control of Japanese Knotweed
Principal Investigator: Stratford H. Kay, PhD, Crop Sciences, NC State University

Japanese knotweed, native to eastern Asia, was introduced to the United Kingdom in 1825 and on into North America in the late 19th century. It is a common and serious perennial invader of terrestrial and riparian habitats in the eastern US. Herbicide application is the only known practical technique for large-scale management of J. knotweed, particularly along highway rights-of-way. This project examines several herbicides used for control of J. knotweed, including foliar and dormant season treatments. Efficacy of the herbicides, timing of application, and an alternative application method (Burch Wet Blade) are evaluated. Link to the final report at http://cte.ncsu.edu/cte/downloads/research/Kay-2002-18.pdf.

Evaluation and Implementation of BMPs for NCDOT’s Highways and Industrial Facilities
Principal Investigators: Jy S. Wu, PhD, P.E., Civil Engineering, and Craig J. Allan, PhD, Geography & Earth Sciences, University of North Carolina at Charlotte
Project Period: July, 2002 – March, 2006

This research provides scientific observations to validate the pollutant removal performance of three highway BMP types: grass filter strip, filtration swale, and grassed shoulder. The report presents recommendations for developing pollution prevention plans for vehicular maintenance facilities. Treatment technologies for borrow pit wastewater also are discussed, including pump capacity curves for sizing and operation of stilling basins, a cost analysis calculator for the polymer injection treatment system, and chemical/physical treatment alternatives. Link to the final report at http://cte.ncsu.edu/cte/downloads/research/Wu-2003-19.pdf.

CTE Supports Washington State Wildlife Crossings Field Course

In June, 2008, CTE’s Eugene Murray traveled to Roslyn, WA to provide documentation support for the Washington Wildlife Crossings Field Course. Organized by the Southern Rockies Ecosystem Project, the three-day course attracted over 100 participants from universities, state DOTs, resource agencies, wildlife advocacy groups, and consultants. The course provided a constructive forum for sharing expertise and exploring new ideas in creating successful wildlife crossings.

Presentations addressed the complex issues of planning, design, funding and monitoring of crossings. The program included a field tour of Washington State DOT’s I-90 Snoqualmie Pass East project. CTE provided video recording, photography, and publishing of the course proceedings on the Web.

The event marked the third such field course documented by CTE. Past courses were conducted in Payson, AZ and Alberta, Canada. Videos, photos, and information about each of the field courses are available online at http://cte.ncsu.edu/CTE/gateway/home.asp.

CTE Researcher Participates in International Summer Program

CTE’s Ann Hartell was invited to Vienna, Austria, to participate in the Fulbright Summer School May 30–June 4, 2008. The school is hosted by the Research Institute for Spatial and Real Estate Economics at Vienna University. This year’s program theme was the intersection of urban and regional development and real estate research. Hartell’s presentation was titled An Exploration of Home Mortgage and Business Loan Data for Transportation Project Impact Analysis.

Fulbright Summer School participants experienced Vienna’s comprehensive public transit system, which uses electric-powered railcars, buses, and the city’s famous red streetcars. Here, two streetcars approach a main transit hub on the city Ring.

Graduate students, post-docs, and young scholars from the US and Europe attended. Also participating were faculty from the University of North Carolina at Chapel Hill. The school provided an opportunity for young scholars to present their work and engage in discussion on their theories, research methods, and findings to improve their research and yield further insights.

The program included a study tour of a Vienna city district. Participants visited a major redevelopment project under construction and a new shopping center located near a recently extended U-Bahn (rail) line. The group also visited a neighborhood that has recently undergone renovation and gentrification. The tour included presentations and discussions on each of the projects.
What’s Coming Up?

October 5-8, 2008
America Public Transportation Association (APTA) Annual Meeting,
San Diego, CA
www.apta.com

October 16-20, 2008
AASHTO Annual Meeting,
Hartford, CT
www.transportation.org

November 3-6, 2008
Southeastern Regional Stream Restoration Conference,
Asheville, NC
www.bae.ncsu.edu/programs/extension/wqg/srp/conference.html

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

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

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as Director of Web Services and Online Marketing. She holds bachelor’s and master’s degrees in Library Science and web development certification. Nancy has more than ten years of Web programming experience and is a member of the International Webmasters Association. Contact Nancy at nbailey@ncsu.edu or 919.515.8657.

CTE Web Developer Nancy Bailey

The Center for Transportation and the Environment at North Carolina State University is a program group within the Institute for Transportation Research and Education. Funding for the Center is provided in part by the North Carolina Department of Transportation and the US Department of Transportation.

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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