



WISCONSIN GUIDE

TRANSPORTATION RESEARCH BOARD

86TH ANNUAL MEETING

January 21-25, 2007

Washington, D.C.

Welcome to the TRB Annual Meeting

We are pleased to provide this Wisconsin Guide to the TRB 86th Annual Meeting. On the following pages we highlight the contributions of WisDOT practitioners and Wisconsin university researchers who will be among this year's presenters and session leaders.

The TRB Annual Meeting provides an opportunity for some 10,000 transportation professionals from around the world to exchange information, knowledge and insights on research that can be put to work for a better transportation system. We hope this guide will facilitate dialogue among Wisconsin participants in the annual meeting, and among all Wisconsin transportation professionals in industry, academia and public agencies.

Many of the papers listed in this guide were made possible by federal and state research funds awarded to the Wisconsin Highway Research Program, the Midwest Regional University Transportation Center, and the Wisconsin Traffic Operations and Safety Laboratory. We note these papers throughout the guide and provide Web links for additional information. On pages 11–12 we group presentations by program: WHRP, MRUTC and TOPS.

Finally, we hope you will join us at the Wisconsin Transportation Reception, hosted by the Transportation Development Association of Wisconsin from 5:30 to 7:30 p.m. Tuesday, an opportunity to relax with fellow Wisconsin transportation professionals. Both presenters and attendees are welcome.

Jim McDonnell

Director, Bureau of
Business Services,
Wisconsin Department
of Transportation

Hussain Bahia

Technical Director,
Wisconsin Highway
Research Program

Teresa Adams

Director, Midwest Regional
University Transportation
Center and National Center
for Freight and Infrastructure
Research and Education

Bin Ran and David Noyce

Co-Directors, Wisconsin
Traffic Operations and Safety
Laboratory

You are invited to the
Wisconsin Transportation Reception
During the TRB Annual Meeting **Tuesday, January 23, 2007**
5:30 p.m. - 7:30 p.m.



HOSTED BY



Marriott Wardman Park Hotel
Mezzanine
2660 Woodley Road, NW
Washington, D.C.

SPONSORED BY

- UW-Madison Department of Civil and Environmental Engineering
- Midwest Regional UTC
- National Center for Freight and Infrastructure Research and Education (C-FIRE)
- UW-Madison Construction & Materials Support Center
- Wisconsin Traffic Operations and Safety Laboratory
- Wisconsin Highway Research Program
- Ayres Associates
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- UW-Platteville
- UW-Superior
- Marquette University
- Great Lakes Maritime Research Institute
- ITE Wisconsin Section
- SmartWays-Wisconsin
- Wisconsin Asphalt Pavement Association
- Wisconsin Concrete Pavement Association
- Wisconsin Department of Transportation



Wisconsin Presenters

The presentations of WisDOT staff, Wisconsin university researchers and others who received Wisconsin support are listed here by day with times, hotel and room locations, and brief summaries. Be sure to check the TRB Final Program for possible room changes. Also see the Interactive Annual Meeting Program at <http://www.trb.org/am/ip/>, where you can search for subjects, organizations or presenters of interest to you.

SUNDAY, JANUARY 21

8:30 a.m. – 12 p.m., Marriott (Washington B2)

Workshop 104: Doctoral Student Research in Transportation Operations and Traffic Control

David A. Noyce (presiding)
University of Wisconsin, Madison

8:30 a.m.: Development of Dynamic Pedestrian Clearance Interval Technology at Signalized Intersections

George Lu
University of Wisconsin, Madison

9:30 a.m.: Development of an Optimal Work Zone Design and Traffic Management Strategy Decision Support System

Yali Chen
University of Wisconsin, Madison

10:30 a.m.: An Artificial Neural Network Approach to Crash Modeling and Prediction

Arup Dutta
University of Wisconsin, Madison

11:30 a.m.: A Dynamic On-Demand All-Red Clearance Interval Extension System for Stochastic Vehicle Arrivals at Signalized Intersections

Tim Gates
University of Wisconsin, Madison

8:30 a.m. – 12 p.m., Shoreham (Hampton)

Workshop 111: Integrating Incident and Emergency Management into Traffic Management Centers and Defining the Homeland Security Research Priorities of State DOTs

8:40 a.m.: A National Unified Goal (NUG) for Traffic Incident Management

John Corbin
Wisconsin Department of Transportation

8:30 a.m. – 12 p.m., Hilton (State)

Workshop 170: Knowledge Management: Meeting Organizations' Every Changing Demand

Overview of NCHRP Synthesis 37-02: Preservation and Use of Institutional Memory

Howard Rosen
University of Wisconsin, Madison

8:30 a.m. – 5 p.m., Marriott (Harding)

Workshop 131: Training New Engineers in Railway Design and Maintenance

1 – 1:30 p.m.: How to Create, Select, and Deliver Continuing Education Programs for Railroad Technical Professionals

Philip R. O'Leary
University of Wisconsin, Madison

1:30 – 5:30 p.m., Shoreham (Ambassador)

Workshop 157: Bridge and Tunnel Security

Mary Lou Ralls (presiding)
Ralls Newman, LLC

Jeffrey L. Western (presiding)
Wisconsin Department of Transportation

5:10 – 5:30 p.m.: Audience Discussion on Issues and Lessons Learned

Jeffrey L. Western
Wisconsin Department of Transportation

4 p.m. – 5:45 p.m., Marriott (Delaware A)

Workshop 179: So You Want to Be a Transportation Professional?

Discussion Panel Member

John Corbin
Wisconsin Department of Transportation

MONDAY, JANUARY 22

8 – 9:45 a.m., Marriott (Delaware A)

Session 201: Corrosion Issues for Cable-Stay, Suspension, and Posttensioned Bridges

Inspection and Corrosion Assessment of Cable and Cable-Stay Bridges

Habib Tabatabai
University of Wisconsin, Milwaukee

8 – 9:45 a.m., Hilton (Georgetown East)

Session 224: Emerging Modeling Methods in Land Use: Transportation Demand Analysis

Tests of Dynamic Extensions to a Family of Trip Table Refinement Methods



Alan J. Horowitz
University of Wisconsin, Milwaukee

Layali Sameer Dajani
University of Wisconsin, Milwaukee

This paper addresses the problem of using traffic counts to ascertain dynamic origin-destination tables when performing dynamic traffic assignments within a traffic window. Researchers propose a family of dynamic OD trip table estimation methods containing two previously unexplored members (single-factor and biproportional) to solve this problem, and test the methods on a traffic network in Milwaukee.

Supported by MRUTC funds for research project 07-03, "A Wisconsin Evaluation of a Tool to Estimate the Economic Development Benefits of Highway Projects." See the final report at <http://www.mrutc.org/research/0703/>.

8 – 9:45 a.m., Hilton (Georgetown West)



Session 236: Transportation Information Revolution: The World at Your Doorstep

Christi Powers (presiding)

Library Connectivity Pooled Fund

Maggie Sacco (presiding)

Library Connectivity Pooled Fund

Engineer Perspective

John M. Corbin

Wisconsin Department of Transportation

Management of the Library Connectivity Pooled Fund is conducted under MRUTC project 06-11. See the project Web site at <http://www.libraryconnectivity.org>.

8 a.m. – 12 p.m., Marriott (Balcony B)

Committee Meeting: Disadvantaged Business Enterprises (DBE)

Committee: Full Committee (AFH80)

Eugene S. Johnson (presiding)

Wisconsin Department of Transportation

9:30 a.m. – 12 p.m., Marriott (Exhibit Hall B South)

Poster Session 237: Beneficial Use of Recycled and Waste Materials in Transportation Infrastructure

Sustainable Construction Case History: Fly Ash Stabilization of Recycled Asphalt Pavement Material

Lin Li

Jackson State University

Craig H. Benson

University of Wisconsin, Madison

Tuncer B. Edil

University of Wisconsin, Madison

Bulent Hatipoglu

University of Wisconsin, Madison

This paper describes the use of Class C fly ash to stabilize recycled pavement material during construction of a flexible pavement in Waseca, Minn. Falling weight deflectometer testing conducted one year after construction showed no degradation in the resilient modulus of the pavement, even though it underwent a freeze-thaw cycle.

Use of Cementitious High-Carbon Fly Ash to Stabilize Recycled Pavement Materials as Pavement Base Material

Haifang Wen

Bloom Consultants, LLC

Jeremy Baugh

University of Wisconsin, Madison

Tuncer B. Edil

University of Wisconsin, Madison

Increasingly stringent environmental policies have increased the amount of residual unburned carbon in fly ash. This paper presents the results of tests using cementitious high-carbon fly ash to stabilize recycled asphalt pavement materials as a base course.

9:30 a.m. – 12 p.m., Marriott (Exhibit Hall B South)

Poster Session 243: Safety Evaluations and New Approaches to Safety Data



System for Digitizing Wisconsin Crash Location Information

Arup Dutta

University of Wisconsin, Madison

Steven Parker

University of Wisconsin, Madison

Xiao Qin

University of Wisconsin, Madison

Zhijun Qiu

University of Wisconsin, Madison

David A. Noyce

University of Wisconsin, Madison

This paper describes a system developed to automate the mapping of crashes on local Wisconsin roads. The location mapping algorithm integrates two WisDOT databases—a crash database of police accident reports and the Wisconsin Information System for Local Roads database, which includes local road data such as traffic information, pavement condition and roadway geometry.



Safety and Operational Effects of Road Diet Conversions in Minnesota

Tim J. Gates

University of Wisconsin, Madison

David A. Noyce

University of Wisconsin, Madison

Vijay Talada

California Department of Transportation

Loren Hill

Minnesota Department of Transportation

This paper describes research into the safety and operational effects of “road diets”—converting four-lane undivided roadways to three

lanes with a center two-way left turn lane. Researchers recommend that these conversions be considered, depending on average daily traffic levels, if a roadway is experiencing safety problems related to conflicts between left-turning traffic and through traffic.



Crash or Carcass Data: Critical Definition and Evaluation Choice

Keith Knapp

Texas Transportation Institute

Craig Lyon

Ryerson University, Canada

Adrian Witte

Midwest Regional University Transportation Center

Cara Kienert

Strand Associates, Inc.

Reported animal-vehicle crashes and deer carcass removals have been used to define the deer-vehicle collision problem, identify problem locations, and evaluate countermeasures. Using data from Iowa roads, this research quantifies and compares the magnitude and patterns of the two data types, which can be dramatically different, and recommends improvements in collection and application of both types of data.

Supported by MRUTC funding for the Deer-Vehicle Crash Information Clearinghouse.

See the project Web site at <http://www.deercrash.com>.

9:30 a.m. – 12 p.m., Shoreham (Blue Room Foyer)

Poster Session 245: Modeling for Forensic Investigations of Roadway Failures



Asphalt Pavement Instrumentation: The Quest for Truth

Nicholas James Hornyak

Marquette University

James A. Crovetti

Marquette University

David Newman

Marquette University

Jay Schabelski

Romus, Inc.

This paper presents the results of calibration experiments conducted for a variety of pavement sensors on an instrumented section of perpetual hot-mix asphalt pavement, including subgrade moisture sensors, subgrade and base pressure plates, and asphalt strain sensors.

Supported by WHRP funds for WisDOT research project 0092-06-01, “Perpetual

Pavement Instrumentation for the Marquette Interchange Project.” See project updates at http://www.whrp.org/Research/Flex/flex_0092-06-01/.

9:30 a.m. – 12 p.m., Hilton (International Center)

Poster Session 248: Asset Management: Extending the Paradigm with Tools and Concepts

Jason Bittner (presiding)
University of Wisconsin, Madison

10:15 a.m. – 12 p.m., Shoreham (Empire)

Session 277: Aesthetics for the Workhorse Bridge

Context-Sensitive Approach to Workhorse Bridges Within St. Croix River Crossing Project

Michael Fitzpatrick
TY Lin International

Val Svensson
Minnesota Department of Transportation

Dave Hall
Minnesota Department of Transportation

William Dreher
Wisconsin Department of Transportation

10:15 a.m. – 12 p.m., Shoreham (Congressional)

Session 279: Biometrics: State of the Technology

Advancing the State of the Art in Identification and Verification: Biometric and Multibiometric Systems

Yuko J. Nakanishi
Nakanishi Research and Consulting

Jeffrey L. Western
Wisconsin Department of Transportation

Biometric technologies are used in applications such as border crossings, transportation worker credentials, real IDs, and facility and computer access control. This paper discusses current and planned biometrics deployment, and gives an overview of existing and emerging technologies, including multibiometric systems and their design issues.

10:15 a.m. – 12 p.m., Hilton (Hemisphere)

Session 285: Assessing the Impact of Gas Prices on Transit Ridership and Enhancing Regional Transit Planning

Edward Beimborn (presiding)
University of Wisconsin, Milwaukee

1:30 – 3:15 p.m., Hilton (Georgetown West)

Session 321: Application of Advanced Information Technology to Support Creation and Use of Traffic Data Archives



WisTransPortal Volume, Speed, and Occupancy Application Suite

Steven Parker
University of Wisconsin, Madison

Michael Runnels
University of Wisconsin, Madison

Shan Di
University of Wisconsin, Madison

Changxuan Pan
Parsons Brinckerhoff Quade & Douglas, Inc.

Douglas Dembowski
Wisconsin Department of Transportation

This paper provides an overview of the WisTransPortal V-SPOC Application Suite, a Web-based application for analyzing traffic detector volume, speed and occupancy data from WisDOT’s ITS network. Features include a detector database query selection tool, data visualization and export capabilities, data quality reporting, and integration with other ITS data sets.

1:30 – 3:15 p.m., Hilton (Georgetown East)

Session 327: Spatial Analysis of Transportation Networks



GPS-Based Arterial Roadway Network Travel Time and Delay Data Collection Method

Changxuan Pan
Parsons Brinckerhoff Quade & Douglas, Inc.

Jiangang Lu
ESRI

Dawei Wang
Reinisch-Westfalische Technische Hochschule Aachen

Bin Ran
University of Wisconsin, Madison

This paper proposes a GPS-based method for collecting historical travel time data, including link travel time and intersection signal delay information, for arterial roadway networks. The method uses a post-trip map-matching algorithm to project GPS data onto an existing arterial roadway network. Results are compared with data from electronic distance measuring instruments.

1:30 – 5:30 p.m., Shoreham (Governors)

Committee Meeting: Critical Transportation Infrastructure Protection Committee (ABE40)

Jeffrey L. Western (presiding)
Wisconsin Department of Transportation

2:30 – 5 p.m., Hilton (International Center)

Poster Session 343: Planning Mega Session



Tests of Dynamic Extensions to Family of Trip Table Refinement Methods

Alan J. Horowitz
University of Wisconsin, Milwaukee

Layali Sameer Dajani
University of Wisconsin, Milwaukee

Supported by MRUTC funds for research project 07-03, “A Wisconsin Evaluation of a Tool to Estimate the Economic Development Benefits of Highway Projects.” See the final report at <http://www.mrutc.org/research/0703/>.

2:30 – 5 p.m., Hilton (International Center)

Poster Session 344: Social and Economic Factors of Transportation



Ethical Considerations in the Transportation Sector: Progress, Need, and Value

Jennifer Blonn
Wisconsin Transportation Center

Jason Bittner
University of Wisconsin, Madison

This paper discusses the role of ethics in transportation and the application of Caux Round Table ethical principles for effective transportation decision-making. The authors suggest increasing focus on health and safety, quality of life, and sustainability to better meet CRT principles, and recommend means for incorporating CRT principles into transportation planning.

Supported by MRUTC funding for the Transportation Management & Policy Graduate Certificate Program.

3:45 – 5:30 p.m., Marriott (Virginia A)

Session 354: Radical Concepts for Increasing DBE Participation on Large Projects: Government and Industry Perspectives of Wisconsin Department of Transportation's Model

Make It, Take It, Respond, and Deliver: How State DOTs, DBEs, and Industry Can Work Together to Achieve Goals on Mega Projects

Reggie Newson
Wisconsin Department of Transportation

Delivering on the Promises: The Madness, the Magic, the Method

Michele Carter-Rutledge
Wisconsin Department of Transportation

When You Go to Battle, Position Yourself to Win

Thomas L. Burse
Buveck Consultants LLC

Value of Open, Continuous Dialogue in Gaining Agency-Industry Consensus on Achievable Project Goals for Mega Projects

Thomas Walker
Wisconsin Transportation Builders Association

3:45 – 5:30 p.m., Shoreham (Executive)

Session 362: Developments in Ferry Design, Safety, and Management

Supported by MRUTC Economic Impact Analysis of Ferry Operations in Wisconsin

Teresa Adams
University of Wisconsin, Madison

Raine Gardner
University of Wisconsin, Madison

Bob Gollnik
University of Wisconsin, Madison

Mark Ray
University of Wisconsin, Madison

Judith Ruetsche
University of Wisconsin, Madison

David Sokolowski
University of Wisconsin, Madison

Dennis Leong
Wisconsin Department of Transportation

Liat Lichtman
Wisconsin Department of Transportation

Robert Russell
Wisconsin Department of Transportation

David Scheler
Wisconsin Department of Tourism

This paper presents economic analyses of selected ferry operations in Wisconsin. A cost and time analysis compares travel by ferry versus highway from the traveler's perspective. An economic impact analysis quantifies the baseline estimates of direct, indirect and induced output and total jobs supplied that can be attributed to ferry operations.

Supported by MRUTC funding for the Transportation Management & Policy Graduate Certificate Program, Practicum Course.

3:45 – 5:30 p.m., Hilton (International West)

Session 370: Asset Management: Lessons from the Domestic Scan, Executive Session, and Best Practices

Supported by MRUTC Improving Conceptual Model of Transportation Asset Management: Lessons Learned from Local Level

Vincent Louis Bernardin
Northwestern University

Pablo Luis Durango-Cohen
Northwestern University

This paper presents a conceptual transportation asset management model that evolved from a study of asset management at the local level. The model draws on local agencies' experience with achieving efficiency in management strategies, and incorporates the importance of institutional learning.

Supported by MRUTC funds for research through the Transportation Asset Management Pooled Fund Research Program, project 05-01, "Transportation Asset Management Threshold Levels." See the final report at <http://www.mrutc.org/research/0501/>.

7:30 – 9:30 p.m., Marriott (Salon 1)

Session 391: Warm-Mix Asphalt

Laboratory Study of Warm-Mix Asphalt Additives

Kunnawee Kanitpong
Asian Institute of Technology, Thailand

Samak Sonthong
Department of Highways, Thailand

Kitae Nam
Washington State University

Wilfung Martono
University of Wisconsin, Madison

Hussain U. Bahia
University of Wisconsin, Madison

To evaluate the applicability of warm-mix asphalt in Thailand, this paper presents

research on the fundamental properties of asphalt binders modified with a commonly used additive, Sasobit. Researchers evaluated viscosity, rheological properties, rutting, and fatigue resistance, and investigated mixture compactability to determine whether mixes can reach the desired density at lower temperatures.

7:30 – 9:30 p.m., Shoreham (Blue Room)

Session 392: Concrete Pavement Materials

Performance of Drained and Undrained Rigid Pavements in Long-Term Pavement Performance SPS-2 Experiment

Kathleen Theresa Hall
Consultant

James A. Crovetti
Marquette University

This paper describes the findings from NCHRP Project 1-34D, in which data from the LTPP SPS-2 (rigid) pavement design experiment were used to assess whether pavements with subsurface drainage systems performed differently from pavements without them. Data analyzed included International Roughness Index, faulting, cracking, and deflection data from the LTPP database, as well as drainage system flow time measurements obtained from field testing.

TUESDAY, JANUARY 23

8 – 9:45 a.m., Marriott (Virginia C)

Session 416: Investment and Scheduling Considerations for Preservation of Highway Infrastructure

Supported by MRUTC Ranking Procedure Based on Statistical Hypothesis Testing

Richard M. Weed
Consultant

Robert Schmitt
University of Wisconsin, Platteville

Sam Owusu-Ababio
University of Wisconsin, Platteville

Erik V. Nordheim
University of Wisconsin, Platteville

This paper describes a statistical procedure for creating an ordered ranking of highway segments that are most in need of repair. The procedure can also be used to provide a graphical display of the statistical results that serves as a visual snapshot of the condition of

the highway system. The procedure performs the equivalent of multiple hypothesis tests to establish the rankings.

Supported by MRUTC funds for research project 06-04, "Development of a Guide to Statistics for Maintenance Quality Assurance Programs in Transportation." See the final report at <http://www.mrutc.org/research/0604/>.

Supported by MRUTC Impact of Investment on Maintenance Condition

Emil Juni
University of Wisconsin, Madison

David Sokolowski
University of Wisconsin, Madison

Teresa Adams
University of Wisconsin, Madison

Researchers evaluated the impact of investment on pavement maintenance condition by relating the amount of money spent each year to the maintenance backlog percentage, and then analyzing the trends that occurred. They concluded that when pavement condition is allowed to deteriorate, significantly larger expenditures are needed in subsequent years to keep the backlog constant.

Supported by MRUTC funds for research project 06-10, "Compass 2005 Data Analysis and Reporting." See the final report at <http://www.mrutc.org/research/0610/>.

8 – 9:45 a.m., Marriott (Cotillion North)
Session 419: Soil Setup Effects on Bearing Capacity of Driven Piles

Hani H. Titi (presiding)
University of Wisconsin, Milwaukee

8 a.m. – 12 p.m., Hilton (Independence)
Committee Meeting: Public Transportation Planning and Development Committee (AP025)

Edward Beimborn (presiding)
University of Wisconsin, Milwaukee

9:30 a.m. – 12 p.m., Marriott (Exhibit Hall B South)
Poster Session 452: Research Advances in Transportation Statistics and Methodology

Supported by TOPS Spatial Statistical Approach to Identifying Snow Crash-Prone Locations

Xiao Qin
University of Wisconsin, Madison

Ghazan Khan
University of Wisconsin, Madison

David A. Noyce
University of Wisconsin, Madison

This paper presents a new approach to identifying and prioritizing snow-prone highway segments that could benefit from a road weather safety audit. Researchers used a grid-based structure to aggregate snow-related crashes and calculated a relative crash rate for each section, identifying highway segments with the greatest need for safety analysis.

9:30 a.m. – 12 p.m., Hilton (International Center)
Poster Session 458: Environment and Energy

Agencies, Consultants, and Section 106: Working Together to Achieve a Common Goal

Robert Stephen Newbery
Wisconsin Department of Transportation

10:15 a.m. – 12 p.m., Hilton (International West)
Session 493: Validation Issues in Statewide Models

Wisconsin Passenger and Freight Statewide Model: Case Study in Statewide Model Validation

Kimon Prousaloglou
Cambridge Systematics, Inc.

Yasasvi Popuri
Cambridge Systematics, Inc.

Dan Tempesta
Cambridge Systematics, Inc.

Krishnan Kasturirangan
Northwestern University

David Cipra
Wisconsin Department of Transportation

This paper describes the model validation process for statewide passenger and freight models developed for WisDOT. These policy-sensitive planning models are used to understand and quantify passenger and freight flows in Wisconsin and to support system planning analyses at a statewide level, allowing planners to test the impact of proposed projects.

1:30 – 3:15 p.m., Marriott (Salon 3)
Session 506: Understanding Traffic Signal Dilemma-Zone Control

Supported by TOPS Comprehensive Analysis of Driver Behavior in the Dilemma Zone at Signalized Intersections

Tim J. Gates
University of Wisconsin, Madison

David A. Noyce
University of Wisconsin, Madison

Luis Laracuente
University of Puerto Rico

Researchers evaluated the behavior of drivers approaching intersections during the yellow interval, focusing on the stopping characteristics of vehicles 2.0 to 5.5 seconds upstream of the intersection at the start of yellow (the "dilemma zone"). The research evaluated deceleration rates and brake-response times for first-to-stop vehicles, and identified differentiating characteristics between first-to-stop and last-to-go vehicles.

1:30 – 3:15 p.m., Shoreham (Blue Room)
Session 514: Moving Microbes: How Global Public Health Epidemics Affect the World of Transportation

Jeffrey L. Western (presiding)
Wisconsin Department of Transportation

1:30 – 3:15 p.m., Hilton (Jefferson West)
Session 526: The Built Environment and Travel Behavior, Part 1

Effect of the Built Environment on Motorized and Nonmotorized Trip Making: Substitutive, Complementary, or Synergistic?

Jessica Y. Guo
University of Wisconsin, Madison

Chandra R. Bhat
University of Texas, Austin

Rachel Copperman
University of Texas, Austin

This research assesses the expected impact of built environment improvements on the substitutive, complementary, or synergistic use of motorized and nonmotorized transportation modes, and examines how the effects of these improvements differ for different population groups and for different travel purposes.

2:30 – 5 p.m., Marriott (Exhibit Hall B South)

Poster Session 529: Asphalt Binder Characterization

Effects of Aggregates' Surface and Water on Rheology of Asphalt Films

Dong-Woo Cho
University of Wisconsin, Madison

Most tests for moisture damage require compacted asphalt mixtures. This research developed a new experimental design test using a Dynamic Shear Rheometer, a method that provides a more basic understanding of the bonding characteristics at the asphalt-aggregate interface than many mechanical tests commonly used to observe the bulk properties of mixtures.

2:30 – 5 p.m., Marriott (Exhibit Hall B South)

Poster Session 534: Characterizing Hot-Mix Asphalt

Laboratory Evaluation of Hydrated Lime Application Process in Asphalt Mixture for Moisture Damage and Rutting Resistance

Tebid Joshua Atud
School of Civil Engineering, Cameroon

Kunnawee Kanitpong
Asian Institute of Technology, Thailand

Wilfung Martono
University of Wisconsin, Madison

This research evaluated the performance of asphalt mixtures using two different lime application processes, and compared an asphalt mixture modified with hydrated lime to a polymer-modified asphalt mixture. The results indicated that the ability of asphalt mixtures modified with hydrated lime to resist moisture damage and rutting is related to the lime application process.

Compaction and Tenderness of HMA Mixtures: Laboratory Study

Ahmed Fatin Faheem
University of Wisconsin, Madison

Nabil Kamel
Asphalt Research and Technical Services, Inc., Canada

Hussain U. Bahia
University of Wisconsin, Madison

This study evaluated the influence of binder viscosity, compaction temperature, compaction pressure, and binder content on the densification of asphalt mixtures produced using process-modified asphalt and polymer-modified asphalt. Results included that mixes

vary in their sensitivity to compaction level and compaction temperature, and that there is a high level of interaction between compaction pressure and temperature.

2:30 – 5 p.m., Marriott (Exhibit Hall B South)

Poster Session 535: Driver Behavior at Intersections

 Evaluating Impact of Two Allowable Permissive Left-Turn Indications

Michael A. Knodler
University of Massachusetts, Amherst

David A. Noyce
University of Wisconsin, Madison

Donald L. Fisher
University of Massachusetts, Amherst

This paper presents the results of research that tested whether driver comprehension of the circular green permissive left-turn indication was altered after exposure to the flashing yellow arrow permissive indication. Initial evidence indicates that implementation of the flashing yellow arrow may not impact driver comprehension of the circular green permissive indication.

2:30 – 5 p.m., Marriott (Exhibit Hall B South)

Poster Session 537: Perspectives on Driver Behavior

Modeling Alcohol-Related Crashes for Wisconsin Counties

Sam Owusu-Ababio
University of Wisconsin, Platteville

This study applied a recursive modeling approach to predict alcohol-related traffic crashes for Wisconsin counties based on a set of hypotheses. The hypotheses examined relationships among factors including population density, liquor license availability, drinking while driving, Operating While Intoxicated arrests, OWI convictions, availability of driver safety plans, and number of offenders completing plans.

2:30 – 5 p.m., Shoreham (Blue Room Foyer)

Poster Session 543: Freight Transportation and Logistics and Trucking Research: Meet the Author

 Regional Approach to Improving Freight Transportation

Teresa Adams
University of Wisconsin, Madison

Sam Van Hecke
University of Wisconsin, Madison

Ernie Wittwer
Wittwer Consulting

Peter S. Lindquist
University of Toledo

Todd Daniel Szymkowski
University of Wisconsin, Madison

This paper describes research efforts funded by the Upper Midwest Freight Corridor Coalition, including developing a knowledge bank of regional freight transportation data and identifying priority initiatives for meeting freight demand, regional data needs, and technology opportunities.

Supported by MRUTC funds for research project 06-09, "Upper Midwest Freight Corridor Study—Phase II." See the project Web site at <http://www.uppermidwestfreight.org/>.

2:30 – 5 p.m., Hilton (International Center)

Poster Session 555: Public Transportation Planning and Development

Edward Beimborn (presiding)
University of Wisconsin, Milwaukee

2:30 – 5 p.m., Hilton (International Center)

Poster Session 557: Transit Management and Allocation of Resources

 Single-Stage Mixed Integer Programming Model for Transit Fleet Resource Allocation

Snehamay Khasnabis
Wayne State University

Tom V. Mathew
Indian Institute of Technology, Bombay

Sabyasachee Mishra
Wayne State University

This paper was developed from previous work under MRUTC research project 02-02, "Optimal Resource Allocation for the Purchase of New Buses and the Rebuilding of Existing Buses as a Part of a Transit Asset Management Strategy for State DOTs." See the final report at <http://www.mrutc.org/research/0201/>.

3:45 – 5:30 p.m., Marriott (Cotillion South)

Session 563: Timing Parameters, Signaling Operations, and Pedestrians: Providing Safe and Effective Control for Intersection Users

David A. Noyce (presiding)
University of Wisconsin, Madison



Evaluation of Driver Comprehension for Solid Yellow Indications Resulting from Implementation of Flashing Yellow Arrow

Michael A. Knodler
University of Massachusetts, Amherst

David A. Noyce
University of Wisconsin, Madison

Kent C. Kacir
Siemens ITS

Chris Brehmer
Kittelson & Associates, Inc.

This research quantified the impact of exposure to the flashing yellow arrow permissive left turn indication on driver comprehension of the solid yellow arrow. The results showed no evidence that the flashing yellow arrow permissive indication would negatively affect drivers' understanding of the solid yellow arrow.

3:45 – 5:30 p.m., Marriott (Salon 1)

Session 564: Innovations in Bridge Construction



Accelerated Construction of Bridges: The Path Toward a Holistic Decision-Making System

O. Salem
University of Cincinnati

Richard Alan Miller
University of Cincinnati

Abhijeet Deshpande
University of Cincinnati

Tejas Arurkar
University of Cincinnati

Most state DOTs use initial cost as a primary factor in determining whether to use accelerated or traditional construction techniques on a bridge project. This paper presents initial research into developing a holistic decision-making system that includes factors such as cost, flow of traffic, safety, and impact on local communities.

Supported by MRUTC funds for research project 05-04, "Accelerated Construction

Decision-Making Process for Bridges." See the final report at <http://www.mrutc.org/research/0504/>.

3:45 – 5:30 p.m., Hilton (Georgetown East)

Session 581: China: Public Transport and Nonmotorized Transport

Mobility of Chinese Urban Poor: Case Study of Hefei City

Zhong-Ren Peng
University of Wisconsin, Milwaukee

Yi Zhu
University of Wisconsin, Milwaukee

Shunfeng Song
University of Nevada, Reno

This paper addresses the mobility challenges of the urban poor in the city of Hefei, China. Researchers present travel behaviors, transportation costs and commuting problems; discuss urban transportation policy implications and trends; and recommend policy changes to improve the mobility of the urban poor.

3:45 – 5:30 p.m., Hilton (Jefferson East)

Session 591: Transportation Ecology Research and Practices

Past and Present Landscapes and Plant Cover of the Kimmes-Tobin Mitigated Wetlands, Foxboro, Douglas County, Wisconsin

Donald William Davidson
University of Wisconsin, Superior

Richard Gitar
Fond du Lac Tribal Reservation

William Bajjali
University of Wisconsin, Superior

Derek S. Anderson
University of Wisconsin, Superior

This paper describes the history of the Kimmes-Tobin Wetlands, a mitigation project that replaced wetlands lost through construction projects on three Wisconsin highways. Created from farmland in 1993, the wetlands are now mature and are managed by a university foundation.

7:30 – 9:30 p.m., Hilton (Chevy Chase)

Committee Meeting: TRB Transit Planning Conference Subcommittee, AP025(1)

Edward Beimborn (presiding)
University of Wisconsin, Milwaukee

Brendon Hemily (presiding)
Consultant

7:30 – 9:30 p.m., Marriott (Lincoln 2)

Committee Meeting: Freeway Operations Committee (AHB20)

Wisconsin Statewide TOC Functionality and Role in Statewide Agency Incident Notification

Kelly Langer
Wisconsin Department of Transportation

7:30 – 9:30 p.m., Marriott (Maryland B)

Session 595: Evaluation of Work Zone Speed Control Tools



Evaluation of Strategies to Manage Speed in Highway Work Zones

Yali Chen
University of Wisconsin, Madison

Xiao Qin
University of Wisconsin, Madison

David A. Noyce
University of Wisconsin, Madison

Chanyoung Lee
University of Wisconsin, Madison

This study evaluated the performance of several speed control strategies in long-term highway work zones to identify the most effective strategies for specific work zone conditions.

7:30 – 9:30 p.m., Marriott (Salon 1)

Session 596: Flexible Pavement Density and Performance



Calibration of Non-Nuclear Density Gauge Data for Accurate In-Place Density Prediction

Chetana Rao
Applied Research Associates, Inc.

Harold L. Von Quintus
Applied Research Associates, Inc.

Robert Schmitt
University of Wisconsin, Platteville

This paper presents the results of a field evaluation of three non-nuclear density gauges. Researchers recommend using a calibration factor with non-nuclear gauges based on 10 calibration points to yield non-nuclear density measurements that are statistically equivalent to those from nuclear gauges.

Supported by WHRP funds for WisDOT research project 0092-05-10, "Non-Nuclear Density Testing Devices and Systems to Evaluate In-Place Asphalt Pavement Density." See the final report at http://www.whrp.org/Research/Flex/flex_0092-05-10/.

7:30 – 9:30 p.m., Marriott (Virginia C)

Session 597: Highway Safety Management Research

Road Weather Safety Audit Program Development and Initial Implementation

Xiao Qin

University of Wisconsin, Madison

David A. Noyce

University of Wisconsin, Madison

Zylkia Martin

University of Wisconsin, Madison

Ghazan Khan

University of Wisconsin, Madison

This study developed a pragmatic safety audit process for proactively addressing weather-related issues during roadway design and planning. The authors created five road safety audit checklists for project stages from development to completion, and developed a quantitative method to assist auditors in evaluating the severity of road weather safety problems.

7:30 – 9:30 p.m., Hilton (Monroe West)

Session 606: Advancing Urban Data

State of the Art and Practice: Cellular Probe Technology Applied in Advanced Traveler Information Systems

Zhijun Qiu

University of Wisconsin, Madison

Jing Jin

University of Wisconsin, Madison

Peng Cheng

Tsinghua University, China

Bin Ran

University of Wisconsin, Madison

This paper describes recent advances in wireless location technology; summarizes existing simulation work and field tests; proposes a general system architecture for a cellular probe traffic system; presents several critical issues in developing such a system and preliminary test results from one operational system; and provides suggestions and recommendations for system deployment.

7:30 – 9:30 p.m., Hilton (Jefferson West)

Session 615: Value of Travel Time

Revealed Parking Choices and Value of Time

Donald John Harmatuck

University of Wisconsin, Madison

This study used UW–Madison parking applications to model lot choice in terms of parking prices and walking distances and to determine how parkers value their walking times. The study found that choice is relatively inelastic with respect to distance and more elastic with respect to price. Researchers used choice models to estimate the effects of two possible parking lot price changes.

WEDNESDAY, JANUARY 24

8 – 9:45 a.m., Marriott (Virginia C)

Session 625: Motorcycle Safety and Use

Scooters on Campus: Responding to Sudden Growth in Use of New Vehicle at University of Wisconsin, Madison

Robert Dawson Kennedy

University of Wisconsin, Madison

This research describes and analyzes the unprecedented growth in the number of scooters on the UW–Madison campus. The study included a survey of moped counts and policies at 25 other colleges and universities, and research into the demographic characteristics and habits of moped operators at UW.

8 – 9:45 a.m., Shoreham (Ambassador)

Session 633: Flexible Pavement Performance and Measurements

Performance of Drained and Undrained Flexible Pavements in Long-Term Pavement Performance SPS-1 Experiment

Kathleen Theresa Hall

Consultant

James A. Crovetti

Marquette University

This paper describes the findings from NCHRP Project 1-34D, in which data from the LTPP SPS-1 (flexible) pavement design experiment were used to assess whether pavements with subsurface drainage systems performed differently from pavements without them. Data analyzed included International Roughness Index, rutting, cracking, and deflection data from the LTPP database, as well as drainage system flow time measurements obtained from field testing.

9:30 a.m. – 12 p.m., Shoreham (Blue Room Foyer)

Poster Session 653: Freight Systems and Marine Groups: Meet the Author

Prince Rupert to Twin Cities: Potential Value Added of New Intermodal Freight Service

Richard D. Stewart

Great Lakes Maritime Research Institute

Xiubin Wang

University of Wisconsin, Superior

Adolph Ojard

Duluth Seaway Port Authority

This paper examines the potential impact on the Minneapolis–St. Paul metropolitan region of a new Canadian container port being developed in Prince Rupert, British Columbia. The paper examines the effects of several issues on two proposed gateways, including transit time, terminal availability, drayage, corridor congestion, asset utilization, interest inventory costs, freight rates, and growth potential.

9:30 a.m. – 12 p.m., Hilton (International Center)

Poster Session 658: Vehicular Traffic Flow: Advances in Mathematical Modeling and Solution Techniques

Parameter Analysis for Route Travel Time Estimation System Based on New Generation of Wireless Location Technology Traffic Monitoring Solutions

Jing Jin

University of Wisconsin, Madison

Zhijun Qiu

University of Wisconsin, Madison

Bin Ran

University of Wisconsin, Madison

4:30 – 6 p.m., Hilton (Georgetown East)

Session 737: Progress in Microsimulation and Synthetic Population Generation

Population Synthesis for Microsimulating Travel Behavior

Jessica Y. Guo

University of Wisconsin, Madison

Chandra R. Bhat

University of Texas, Austin

This paper discusses problems with the conventional approach to synthesizing the base year population in activity-based travel demand forecasting, and presents a new population synthesis procedure that addresses these limitations.

Cross-Reference Guide

This section shows presentations listed in the guide that are supported with WHRP, MRUTC and TOPS research funds. See the individual listings on pages 3–10 for more information on many of these papers.

Supported by WHRP

Monday, 9:30 a.m. – 12 p.m., Shoreham (Blue Room Foyer)

Poster Session 245: Modeling for Forensic Investigations of Roadway Failures

Asphalt Pavement Instrumentation: The Quest for Truth

**Nicholas James Hornyak,
James A. Crovetti & David Newman**
Marquette University

Jay Schabelski
Romus, Inc.

Tuesday, 7:30 – 9:30 p.m., Marriott (Salon 1)

Session 596: Flexible Pavement Density and Performance

Calibration of Non-Nuclear Density Gauge Data for Accurate In-Place Density Prediction

Chetana Rao & Harold L. Von Quintus
Applied Research Associates, Inc.

Robert Schmitt
University of Wisconsin, Platteville

Supported by MRUTC

Monday, 8 – 9:45 a.m., Hilton (Georgetown East)

Session 224: Emerging Modeling Methods in Land Use: Transportation Demand Analysis

Tests of Dynamic Extensions to a Family of Trip Table Refinement Methods

Alan J. Horowitz & Layali Sameer Dajani
University of Wisconsin, Milwaukee

Monday, 8 – 9:45 a.m., Hilton (Georgetown West)

Session 236: Transportation Information Revolution: The World at Your Doorstep

**Christi Powers & Maggie Sacco
(presiding)**
Library Connectivity Pooled Fund

Engineer Perspective

John M. Corbin
Wisconsin Department of Transportation

Supported by MRUTC (cont.)

9:30 a.m. – 12 p.m., Marriott (Exhibit Hall B South)

Poster Session 243: Safety Evaluations and New Approaches to Safety Data

Crash or Carcass Data: Critical Definition and Evaluation Choice

Keith Knapp
Texas Transportation Institute

Craig Lyon
Ryerson University, Canada

Adrian Witte
Midwest Regional University Transportation Center

Cara Kienert
Strand Associates, Inc.

Monday, 2:30 – 5 p.m., Hilton (International Center)

Poster Session 343: Planning Mega Session

Tests of Dynamic Extensions to Family of Trip Table Refinement Methods

Alan J. Horowitz & Layali Sameer Dajani
University of Wisconsin, Milwaukee

Monday, 2:30 – 5 p.m., Hilton (International Center)

Poster Session 344: Social and Economic Factors of Transportation

Ethical Considerations in the Transportation Sector: Progress, Need, and Value

Jennifer Blonn
Wisconsin Transportation Center

Jason Bittner
University of Wisconsin, Madison

Monday, 3:45 – 5:30 p.m., Shoreham (Executive)

Session 362: Developments in Ferry Design, Safety, and Management

Economic Impact Analysis of Ferry Operations in Wisconsin

**Teresa Adams, Raine Gardner,
Bob Gollnik, Mark Ray, Judith Ruetsche
& David Sokolowski**
University of Wisconsin, Madison

**Dennis Leong, Liat Lichtman
& Robert Russell**
Wisconsin Department of Transportation

David Scheler
Wisconsin Department of Tourism

Monday, 3:45 – 5:30 p.m., Hilton (International West)

Session 370: Asset Management: Lessons from the Domestic Scan, Executive Session, and Best Practices

Improving Conceptual Model of Transportation Asset Management: Lessons Learned from Local Level

**Vincent Louis Bernardin
& Pablo Luis Durango-Cohen**
Northwestern University

Tuesday, 8 – 9:45 a.m., Marriott (Virginia C)

Session 416: Investment and Scheduling Considerations for Preservation of Highway Infrastructure

Ranking Procedure Based on Statistical Hypothesis Testing

Richard M. Weed
Consultant

**Robert Schmitt, Sam Owusu-Ababio
& Erik V. Nordheim**
University of Wisconsin, Platteville

Impact of Investment on Maintenance Condition

**Emil Juni, David Sokolowski
& Teresa Adams**
University of Wisconsin, Madison

Tuesday, 2:30 – 5 p.m., Shoreham (Blue Room Foyer)

Poster Session 543: Freight Transportation and Logistics and Trucking Research: Meet the Author

Regional Approach to Improving Freight Transportation

**Teresa Adams, Sam Van Hecke
& Todd Daniel Szymkowski**
University of Wisconsin, Madison

Ernie Wittwer
Wittwer Consulting

Peter S. Lindquist
University of Toledo

Supported by MRUTC (cont.)

Tuesday, 2:30 – 5 p.m., Hilton (International Center)

Poster Session 557: Transit Management and Allocation of Resources

Single-Stage Mixed Integer Programming Model for Transit Fleet Resource Allocation

**Snehamay Khasnabis
& Sabyasachee Mishra**
Wayne State University

Tom V. Mathew
Indian Institute of Technology, Bombay

Tuesday, 3:45 – 5:30 p.m., Marriott (Salon 1)

Session 564: Innovations in Bridge Construction

Accelerated Construction of Bridges:
The Path Toward a Holistic Decision-
Making System

**O. Salem, Richard Alan Miller,
Abhijeet Deshpande & Tejas Arurkar**
University of Cincinnati

Supported by TOPS

Monday, 9:30 a.m. – 12 p.m., Marriott (Exhibit Hall B South)

Poster Session 243: Safety Evaluations and New Approaches to Safety Data

System for Digitizing Wisconsin Crash Location Information

**Arup Dutta, Steven Parker, Xiao Qin,
Zhijun Qiu & David A. Noyce**
University of Wisconsin, Madison

Safety and Operational Effects of Road Diet Conversions in Minnesota

Tim J. Gates & David A. Noyce
University of Wisconsin, Madison

Vijay Talada
California Department of Transportation

Loren Hill
Minnesota Department of Transportation

Monday, 1:30 – 3:15 p.m., Hilton (Georgetown West)

Session 321: Application of Advanced Information Technology to Support Creation and Use of Traffic Data Archives

WisTransPortal Volume, Speed, and Occupancy Application Suite

**Steven Parker, Michael Runnels
& Shan Di**
University of Wisconsin, Madison

Changxuan Pan
Parsons Brinckerhoff Quade & Douglas, Inc.

Douglas Dembowski
Wisconsin Department of Transportation

Supported by TOPS (cont.)

Monday, 1:30 – 3:15 p.m., Hilton (Georgetown East)

Session 327: Spatial Analysis of Transportation Networks

GPS-Based Arterial Roadway Network Travel Time and Delay Data Collection Method

Changxuan Pan
Parsons Brinckerhoff Quade & Douglas, Inc.

Jiangang Lu
ESRI

Dawei Wang
Reinisch-Westfälische Technische Hochschule Aachen

Bin Ran
University of Wisconsin, Madison

Tuesday, 9:30 a.m. – 12 p.m., Marriott (Exhibit Hall B South)

Poster Session 452: Research Advances in Transportation Statistics and Methodology

Spatial Statistical Approach to Identifying Snow Crash-Prone Locations

Xiao Qin, Ghazan Khan & David A. Noyce
University of Wisconsin, Madison

Tuesday, 1:30 – 3:15 p.m., Marriott (Salon 3)

Session 506: Understanding Traffic Signal Dilemma-Zone Control

Comprehensive Analysis of Driver Behavior in the Dilemma Zone at Signalized Intersections

Tim J. Gates & David A. Noyce
University of Wisconsin, Madison

Luis Laracuente
University of Puerto Rico

Tuesday, 2:30 – 5 p.m., Marriott (Exhibit Hall B South)

Poster Session 535: Driver Behavior at Intersections

Evaluating Impact of Two Allowable Permissive Left-Turn Indications

Michael A. Knodler & Donald L. Fisher
University of Massachusetts, Amherst

David A. Noyce
University of Wisconsin, Madison

Tuesday, 3:45 – 5:30 p.m., Marriott (Cotillion South)

Session 563: Timing Parameters, Signaling Operations, and Pedestrians: Providing Safe and Effective Control for Intersection Users

Evaluation of Driver Comprehension for Solid Yellow Indications Resulting from Implementation of Flashing Yellow Arrow

Michael A. Knodler
University of Massachusetts, Amherst

David A. Noyce
University of Wisconsin, Madison

Kent C. Kacir
Siemens ITS

Chris Brehmer
Kittelson & Associates, Inc.

Tuesday, 7:30 – 9:30 p.m., Marriott (Maryland B)

Session 595: Evaluation of Work Zone Speed Control Tools

Evaluation of Strategies to Manage Speed in Highway Work Zones

**Yali Chen, Xiao Qin, David A. Noyce
& Chanyoung Lee**
University of Wisconsin, Madison

Tuesday, 7:30 – 9:30 p.m., Marriott (Virginia C)

Session 597: Highway Safety Management Research

Road Weather Safety Audit Program Development and Initial Implementation

**Xiao Qin, David A. Noyce, Zylkia Martin
& Ghazan Khan**
University of Wisconsin, Madison

Tuesday, 7:30 – 9:30 p.m., Hilton (Monroe West)

Session 606: Advancing Urban Data

State of the Art and Practice: Cellular Probe Technology Applied in Advanced Traveler Information Systems

Zhijun Qiu, Jing Jin & Bin Ran
University of Wisconsin, Madison

Peng Cheng
Tsinghua University, China

Wednesday, 9:30 a.m. – 12 p.m., Hilton (International Center)

Poster Session 658: Vehicular Traffic Flow: Advances in Mathematical Modeling and Solution Techniques

Parameter Analysis for Route Travel Time Estimation System Based on New Generation of Wireless Location Technology Traffic Monitoring Solutions

Jing Jin, Zhijun Qiu & Bin Ran
University of Wisconsin, Madison

TRB Committee Members

WisDOT

Balu Ananthanarayanan, DTSD

NCHRP Project Panels on:

Visibility Performance Requirements for Vehicular Traffic Signals

Traffic Signal State Transition Logic Using Enhanced Sensor Information (Chair)

Guidelines for Roadway Lighting Based on Safety Benefits and Costs

Sandra Beaupre, DTIM

NCHRP Project Panel on Development of a Statewide Corridor Planning Guidebook

Scot Becker, DTSD

NCHRP Project Panels on:

Effective Slab Width for Composite Steel Bridge Members

Heat-Straightening Repair of Damaged Steel Bridge Girders: Fatigue and Fracture Performance

Bridge Deck Design Criteria and Testing Procedures

David Cipra, DTIM

Committee on Freight Demand Modeling: A Conference on Tools for Public-Sector Decision Making

John Corbin, DTSD

NCHRP Project Panels on:

Emergency Traffic Operations Management

Transportation Response Options: Scenarios of Infectious Disease, Biological Agents, Chemical, Biological, Radiological, or Nuclear Exposure

A Guide to Emergency Response Planning for Transportation (Chair)

Philip DeCaboote, DTSD

NCHRP Project Panel on Guide for Multistate Transportation Operations Programs

Susie Forde, DTIM

Committee on Statewide Transportation Data and Information Systems

Shiv Gupta, DTSD

NCHRP Project Panel on Developing an Asset Management Plan for the Interstate Highway System

Thomas Huber, DTIM

NCHRP Project Panels on:

Methodology to Predict the Safety Performance of Urban and Suburban Arterials

Multimodal Arterial Level of Service

Eugene Johnson, DTSD

Construction Section

Committees on:

Disadvantaged Business Enterprises (DBE) (Chair)

Peter Kemp, DTSD

NCHRP Project Panel on Procedures for Testing and Evaluating Detectable Warning Systems (Chair)

Steven Krebs, DTSD

Committee on Subsurface Drainage

NCHRP Project Panel on Endurance Limit of Hot Mix Asphalt Mixtures to Prevent Fatigue Cracking in Flexible Pavements (AASHTO Monitor)

David Larson, DTSD

NCHRP Project Panels on:

Secure Communication Infrastructure (Chair)

Methods for Determining Transportation and Economic Consequences of Terrorist Attacks (Chair)

Wendy Maves, DTSD

NCHRP Project Panel on TRAC PAC2—A Hands-on Educational Program

William McDaniel, DTSD

NCHRP Project Panel on Protocols for Collecting and Using Traffic Data in Bridge Design

Nina McLawhorn, DBM

Committee on Library and Information Science for Transportation

Donald Miller, DTSD

NCHRP Project Panel on Effects of Incentive and Disincentive Contract Provisions on Highway Construction Duration and Quality (Chair)

Robert Newbery, DTSD

Committee on Transportation History

Paul Nilsen, OGC

Committee on Emerging Technology Law

Thomas Notbohm, DTSD

NCHRP Panel on Development of Guidelines to Improve Safety During Nighttime Construction or System Preservation Work

William Oliva, DTSD

NCHRP Project Panels on:

Development of Portable Scour Monitoring Equipment

Effects of Debris on Pier Scour at Bridges (Chair)

Effects of Fractured or Degradable Rock on Pier Scour at Bridges (Chair)

Karen Olson, DTSD

NCHRP Project Panel on Highway Capacity Manual: Applications Handbook

Robert Pearson, DTSD

Committee on Waste Management and Resource Efficiency in Transportation

Cari Anne Renlund, OGC

Committee on Contract Law

WisDOT Acronyms

DBM

Division of Business Management

DTIM

Division of Transportation Investment Management

DTSD

Division of Transportation System Development

OGC

Office of General Counsel

TRB Committee Members

Judie Ryan, DTSD

NCHRP Project Panel on Improved Test Procedure for Determining the Moisture Damage Susceptibility of Bituminous Pavements

James Thiel, OGC

Legal Resources Group

Committees on:

Environmental Issues
in Transportation Law

Transit and Intermodal
Transportation Law

NCHRP Project Panel on Legal Problems
Arising Out of Highway Programs (Chair)

Randall Wade, DTIM

Committee on Intercity Rail
Passenger Systems

NCHRP Project Panel on Cost Allocation
Methods for Shared-Use Passenger and
Freight Rail Operations (Chair)

Jeffrey Western, DTSD

Policy and Organization Group

Transportation Policy Section

Committees on:

Information Systems
and Technology

National Transportation Data
Requirements and Programs

Critical Transportation
Infrastructure Protection (Chair)

NCHRP Project Panels on:

Surface Transportation
Security Research

AASHTO Guide to Risk Management of
Multimodal Transportation
Infrastructure (Chair)

Mark Wolfram, DTIM

NCHRP Project Panels on:

Analytic Tools Supporting
Transportation Asset Management
(Chair)

Financial Management for
Effective Program Delivery

University of Wisconsin, Madison

Teresa Adams

Committee on Information Systems
and Technology

NCHRP Project Panel on Demonstrating
the Value of Research

Hussain Bahia

Committees on:

Characteristics of Bituminous
Materials

Characteristics of Nonbituminous
Components of Bituminous Paving
Mixtures

Characteristics of Bituminous-
Aggregate Combinations to Meet
Surface Requirements

NCHRP Project Panel on Superpave
Support and Performance Models
Management

Jason Bittner

Committee on Conduct of Research

Peter Bosscher

NCHRP Project Panel on Development
of Portable Scour Monitoring Equipment

Tim Gates

Committee on Traffic Control
Devices (Young Member)

Jessica Yingchieh Guo

Committees on:

Transportation Demand Forecasting

Task Force on Moving Activity-
Based Approaches to Practice

Robert Kennedy

Committee on Motorcycles and Mopeds

David Noyce

Committee on Traffic Control Devices

NCHRP Project Panels on:

Communicating Changes in
Horizontal Alignment (Chair)

Safety of U-Turns at Unsignalized
Intersection/Median Openings

Michael Oliva

NCHRP Project Panel on
Evaluation of CIP Reinforced
Joints for Full-Depth Precast
Concrete Bridge Decks

Xiao Qin

Committee on Statistical
Methodology and Statistical
Computer Software in
Transportation Research

Bin Ran

Committee on Information Systems
and Technology (Secretary)

Howard Rosen

Committee on Transportation History

Jeffrey Russell

NCHRP Project Panel on Best Practices
on Accelerating Project Delivery:
Conception to Completion

Janille Smith

Committee on International
Activities (Young Member)

Donald Walker

Committee on Winter Maintenance
(Emeritus Member)

Gary Whited

Committee on TRB Long-Term
Pavement Performance (LTPP)

NCHRP Project Panels on:

Performance-Related
Specifications for Hot-Mix
Asphalt Construction

Issues Involving Delays in
Completing Federal-Aid Highway
and Bridge Projects

Barbara Wolfe

TCRP Project Panel on Cost Benefit
Analysis of Providing Non-emergency
Medical Transportation Benefits

Joy Zedler

Committee on the St. Lawrence Seaway:
Options to Eliminate Introduction of
Nonindigenous Species into the Great
Lakes, Phase II

TRB Committee Members

University of Wisconsin, Milwaukee

Edward Beimborn

Public Transportation Group

Committee on Public Transportation
Planning and Development (Chair)

TCRP Project Panel on Transit-Oriented
Joint Development: State of the
Practice, Future

Michael Greenwald

Committee on Transportation and Land
Development

Zhong-Ren Peng

Committee on Geographic Information
Science and Applications

Hani Titi

Committees on:

Foundations of Bridges
and Other Structures

Exploration and Classification
of Earth Materials

Soil and Rock Properties

NCHRP Project Panel on AASHTO LRFD
Design-Construction Specifications of
Shallow Foundations for Highway and
Bridge Structures

University of Wisconsin, Superior

Richard Stewart

Committee on Ports and Channels

Xiubin Wang

Committee on New Public
Transportation Systems and Technology

Marquette University

James Croveti

Committee on Rigid Pavement Design

Alexander Drakopoulos

TRB Information Services Committee

Ronald Sonntag

Committee on Freeway Operations
(Emeritus Member)

NCHRP Project Panels on:

Analysis of Freeway Weaving
Sections

Low-Cost Improvements for
Recurring Freeway Bottlenecks



University Transportation Center

2006 Student of the Year in Transportation

Nicholas Hornyak

Marquette University

Award to be presented at the Council of University Transportation Centers
Tenth Annual Awards Banquet

Saturday, January 20, 2007

Palladian Ballroom, Omni Shoreham Hotel

Nicholas Hornyak is a graduate student at Marquette University pursuing a Ph.D. in civil engineering. Nick's research interests include pavement materials, instrumentation and structural mechanics, and he is part of a research team working on a flexible pavement instrumentation project on Interstate 43 just north of Milwaukee. Funded by WHRP, the project involves recording real-time data from a variety of embedded sensors to characterize the pavement's structural behavior.

Nick received bachelor's and master's degrees in civil engineering from Marquette University in 2003 and 2005, respectively. His master's degree thesis involved studying self-consolidating concrete and its effects on the development of steel reinforcement.

Nick has many years of construction experience in the concrete industry, and intends to pursue a career in teaching at the university level. He is involved in community service work with Habitat for Humanity and Cathedral Preparatory School in Erie, Pa., and traveled to Guatemala as part of Marquette's International Service Learning Program. While there he played a significant role in the design and construction of a concrete bridge in a small village.

Nick is the primary author of a paper in Poster Session 245 on Monday, January 22: "Asphalt Pavement Instrumentation: The Quest for Truth."



www.dot.wisconsin.gov



www.whrp.org



www.mrutc.org



www.topslab.wisc.edu



cfire.wistrans.org