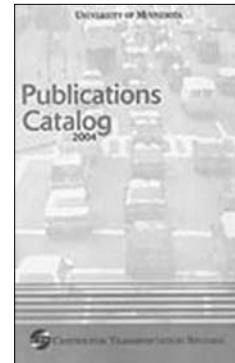


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This 2006 update supplements the *CTS Publications Catalog* published in 2004 and subsequent annual updates. A complete listing of all publications available from CTS and ordering information may be found online at:

www.cts.umn.edu/publications

Research Reports

Transportation and the Economy

Cost/Benefit Study of Spring Load Restrictions

David Levinson, Mihai Marasteanu, Vaughan Voller, Ioana Margineau, Brian Smalkowski, Maryam Hashami, Ning Li, Mike Corbett, Erland Lukanen
Report no. Mn/DOT 2005-15
www.lrrb.org/pdf/200515.pdf
(3.1 MB PDF) 317 pp., \$45

Development of a Web-Based Economic Impact Calculator for Small and Medium Size Airports

William Gartner, Daniel Erkkila, Jo Hyunkuk
Report no. Mn/DOT 2005-19
www.lrrb.org/pdf/200519.pdf
(3.3 MB PDF) 46 pp., \$19

Distillate Usage Patterns in Minnesota: Development of Data and Tools To Analyze Policies Affecting Biodiesel Usage

Douglas Tiffany
Report no. Mn/DOT 2005-08
www.lrrb.org/pdf/200508.pdf
(220 KB PDF) 46 pp., \$19

The Financial Benefits of Early Acquisition of Transportation Right of Way

Gary Barnes, Sarah Watters
Report no. Mn/DOT 2005-35
www.lrrb.org/pdf/200535.pdf
(540 KB PDF) 52 pp., \$20

Minnesota State Road Taxes in 2030: Will Revenues Keep Pace With Inflation?

Barry Ryan, Thomas Stinson
Report no. Mn/DOT 2005-26
www.lrrb.org/pdf/200526.pdf
(620 KB PDF) 71 pp., \$22

Route Preferences and the Value of Travel-Time Information for Motorists Driving Real-World Routes

Kathleen Harder, John Bloomfield, David Levinson, Lei Zhang
Report no. Mn/DOT 2005-20
www.lrrb.org/pdf/200520.pdf
(1.0 MB PDF) 62 pp., \$21

User Perspectives on Location Efficient Mortgages and Car Sharing

Kevin Krizek
Report no. Mn/DOT 2005-24
www.lrrb.org/pdf/200524.pdf
(900 KB PDF) 148 pp., \$30

Transportation Safety and Traffic Flow

Adaptive Cruise Control System Design And Its Impact on Traffic Flow

Rajesh Rajamani, David Levinson, Panos Michalopoulos, J. Wang, K. Santhanakrishnan, Xi Zhu
Report no. CTS 05-01
www.cts.umn.edu/pdf/CTS-05-01.pdf
(5.5 MB PDF) 167 pp., \$31

Advanced Portable Wireless Measurement and Observation Station

John Hourdakis, Ted Morris, Panos Michalopoulos, Praseon Sinha
Report no. CTS 05-07
www.cts.umn.edu/pdf/CTS-05-07.pdf
(4.0 MB PDF) 80 pp., \$23

Development of a Tracking-Based Monitoring and Data Collection System

Harini Veeraraghavan, Stefan Atev, Osama Masoud, Grant Miller, Nikolaos Papanikolopoulos
Report no. Mn/DOT 2005-40
www.lrrb.org/pdf/200540.pdf
(4.3 MB PDF) 56 pp., \$21

DGPS-Based Gang Plowing

Lee Alexander, Alec Gorjestani, Craig Shankwitz
Report no. Mn/DOT 2005-18
www.lrrb.org/pdf/200518.pdf
(2.1 MB PDF) 37 pp., \$19

Driver Assistive Systems for Rural Applications: A Path to Deployment, Volume 1

Lee Alexander, Pi-Ming Cheng, Alec Gorjestani, Bryan Newstrom, Craig Shankwitz, Walter Trach
Report no. Mn/DOT 2005-30
www.lrrb.org/pdf/200530.pdf
(1.1 MB PDF) 41 pp., \$19

Driver Assistive Systems for Rural Applications: Digital Mapping of Roads for Lane Departure Warnings, Volume 2

Walter Trach, Max Donath, Craig Shankwitz
Report no. Mn/DOT 2005-31
www.lrrb.org/pdf/200531.pdf
(2.4 MB PDF) 92 pp., \$24

Driving Performance During Cell Phone Conversations and Common In-Vehicle Tasks While Sober and Drunk

Mick Rakauskas, Nic Ward
Report no. Mn/DOT 2005-41
www.lrrb.org/pdf/200541.pdf
(1.3 MB PDF) 203 pp., \$35

The Effects of In-Lane Rumble Strips on the Stopping Behavior of Sleep-Deprived Drivers

Kathleen Harder, John Bloomfield
Report no. Mn/DOT 2005-16
www.lrrb.org/pdf/200516.pdf
(330 KB PDF) 48 pp., \$19

Evaluation and Improvement of the Stratified Ramp Metering Algorithm Through Microscopic Simulation—Phase II

Panos Michalopoulos, Wuping Xin, John Hourdos
Report no. Mn/DOT 2005-48
www.lrrb.org/pdf/200548.pdf
(2.5 MB PDF) 110 pp., \$26

Evaluation of the Use of High-Resolution Satellite Imagery in Transportation Applications

Rocio Alba-Flores
Report no. CTS 05-11
www.cts.umn.edu/pdf/CTS-05-11.pdf
(2.3 MB PDF) 60 pp., \$17

Finding What the Driver Does

Harini Veeraraghavan, Stefan Atev, Nathaniel Bird, Paul Schrater, Nikolaos Papanikolopoulos
Report no. CTS 05-03
www.cts.umn.edu/pdf/CTS-05-03.pdf
(812 KB PDF) 24 pp., \$17

Homeland Security and the Trucking Industry

Max Donath, Dan Murray, Jeff Short
Report no. CTS 05-08
www.cts.umn.edu/pdf/CTS-05-08.pdf
(2.2 MB PDF) 103 pp., \$25

I-494 Future Improvements Evaluation with Two Traffic Simulators

Haifeng Xiao, Ravi Ambadipudi, John Hourdakos, Panos Michalopoulos
Report no. CTS 05-04
www.cts.umn.edu/pdf/CTS-05-04.pdf
(1.0 MB PDF) 68 pp., \$17

Identification of Causal Factors and Potential Countermeasures for Fatal Rural Crashes

Gary Davis
Report no. Mn/DOT 2005-42
www.lrrb.org/pdf/200542.pdf
(3.1 MB PDF) 71 pp., \$22

Methodology for Selecting Microscopic Simulators: Comparative Evaluation of AIMSUN and VISSIM

Haifeng Xiao, Ravi Ambadipudi, John Hourdakos, Panos Michalopoulos
Report no. CTS 05-05
www.cts.umn.edu/pdf/CTS-05-05.pdf
(1.3 MB PDF) 32 pp., \$18

Ramp Meter Delays, Freeway Congestion, and Driver Acceptance

David Levinson, Kathleen Harder, John Bloomfield, Kasia Winiarczyk
Report no. CTS 05-02
www.cts.umn.edu/pdf/CTS-05-02.pdf
(511 KB PDF) 47 pp., \$19

Transportation Infrastructure

Analysis of Girder Differential Deflection and Web Gap Stress for Rapid Assessment of Distortional Fatigue Stress in Multi-Girder Steel Bridges

Arturo Schultz, Huijuan Li
Report no. Mn/DOT 2005-38
www.lrrb.org/pdf/200538.pdf
(1.3 MB PDF) 113 pp., \$26

The Cost and Effectiveness of Stormwater Management Practices

Peter Weiss, John Gulliver, Andrew Erickson
Report no. Mn/DOT 2005-23
www.lrrb.org/pdf/200523.pdf
(3.0 MB PDF) 103 pp., \$25

Earth Pressure Behind a Retaining Wall

Joseph Bentler, Joseph Labuz, Arturo Schultz
Report no. Mn/DOT 2005-14
www.lrrb.org/pdf/200514.pdf
(3.4 MB PDF) 182 pp., \$33

Investigation of Deterioration of Stainless Steel Dowel Tubes Under Repeated Loading

Arturo Schultz, Lev Khazanovich, Iliya Yut, Derek Tompkins
Report no. Mn/DOT 2006-01
www.lrrb.org/pdf/200601.pdf
(11.7 MB PDF) 188 pp., \$33

Load Testing of Instrumented Pavement Sections

Erland Lukanen
Report no. Mn/DOT 2005-47
www.lrrb.org/pdf/200547.pdf
(700 KB PDF) 24 pp., \$17

Minnesota Taconite as a Microwave-Absorbing Road Aggregate Material for Deicing and Pothole Patching Applications

David Hopstock, Lawrence Zanko, Jiann-Shiou Yang
Report no. CTS 05-10
www.cts.umn.edu/pdf/CTS-05-10.pdf
(436 KB PDF) 26 pp., \$17

Moisture Retention Characteristics of Base and Sub-Base Materials

Satish Gupta, Amanjot Singh, Andry Ranaivoson
Report no. Mn/DOT 2005-06
www.lrrb.org/pdf/200506.pdf
(560 KB PDF) 112 pp., \$26

Preliminary Laboratory Investigation of Enzyme Solutions as a Soil Stabilizer

Mihai Marasteanu, Ray Hozalski, Timothy Clyne, Raul Velasquez
Report no. Mn/DOT 2005-25
www.lrrb.org/pdf/200525.pdf
(1.1 MB PDF) 102 pp., \$25

Quantification of Uncertainty in Transportation Infrastructure Projects

Ryan Rosandich, Santiago Erquicia
Report no. CTS 05-06
www.cts.umn.edu/pdf/CTS-05-06.pdf
(1.0 MB PDF) 42 pp., \$19

Retrofitting Shear Cracks in Reinforced Concrete Pier Caps Using Carbon Fiber Reinforced Polymers

Emily Milde, Carol Shield, Catherine French, Jon Wacker
Report no. Mn/DOT 2005-13
www.lrrb.org/pdf/200513.pdf
(11.6 MB PDF) 240 pp., \$39

Transportation Planning and the Environment

City Rebuilding: The University Avenue Bus Corridor (1997)

Mary Vogel, James Pettinari, Lance Neckar
Report no. CTS 05-13
www.cts.umn.edu/publications/reports/static/CTS-05-13.html
(32.3 MB PDF) 47 pp., \$19

Enhanced Coordination of Cadastral Information

Francis Harvey
Report no. Mn/DOT 2005-36
www.lrrb.org/pdf/200536.pdf
(580 KB PDF) 60 pp., \$21

Inoculated Legumes and Revegetation/Roadside Plantings

Peter Graham, Becki Tlusty, Elena Beyhaut
Report no. Mn/DOT 2004-32
www.lrrb.org/pdf/200432.pdf
(1.2 MB PDF) 62 pp., \$21

Tools for Predicting Usage and Benefits of Urban Bicycle Network Improvements

Gary Barnes, Kevin Krizek
Report no. Mn/DOT 2005-50
www.lrrb.org/pdf/200550.pdf
(2.7 MB PDF) 92 pp., \$24

Annual Reports

2005 CTS Annual Report

www.cts.umn.edu/publications/annualreports
(3.5 MB PDF) 48 pp., \$19

2005 ITS Institute Annual Report

www.cts.umn.edu/publications/annualreports
(5.2 MB PDF) 60 pp., \$21

2005 Local OPERA Program Annual Report

www.cts.umn.edu/publications/annualreports
(532 KB PDF) 16 pp., \$15

Proceedings

Access to Destinations: Rethinking the Transportation Future of our Region

November 8–9, 2004 Minneapolis, Minnesota
www.cts.umn.edu/publications/proceedings
(3.3 MB PDF), 40 pp., \$19

AirTAP Fall Forum

October 11–12, 2005, Brainerd, Minnesota
www.cts.umn.edu/publications/proceedings
(1.2 MB PDF) 16 pp., \$16

9th Annual Freight and Logistics Symposium—Freight Mobility: Economic Impacts on the Upper Midwest

December 2, 2005, Minneapolis, Minnesota
www.cts.umn.edu/publications/proceedings
(453 KB PDF) 8 pp., \$15

2005 James L. Oberstar Forum on Transportation Policy and Technology—The Future of Transportation Finance: 'Gas Tax Plus' and Beyond

April 17–18, 2005, Minneapolis, Minnesota
www.cts.umn.edu/publications/proceedings
(476 KB PDF) 16 pp., \$16

Toward Zero Deaths: Integrating Minnesota's Traffic Safety Agenda Conference

November 16–17, 2005, St. Cloud, Minnesota
www.cts.umn.edu/publications/proceedings
(2.8 MB PDF) 16 pp., \$16

Videos

Gravel Road Maintenance: Meeting the Challenge

www.mnltap.umn.edu/publications/videos/GravelRoadMaintenance
Web streaming or 2-disc DVD set

Local Government Video Catalog, 2005

www.mnltap.umn.edu/pdf/VideoCatalog_2005.pdf
(848 KB PDF) 78 pp., \$23

ITS Institute Seminar Series—Fall Semester 2005

Video recordings may be borrowed or purchased from the CTS library online at:
www.cts.umn.edu/publications/videos

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Minnesota Guidestar Program and Project Updates

Ray Starr, Traffic Engineering/ITS, Minnesota Department of Transportation

September 27

Model Reference Adaptive Control Framework for Real Time Traffic Management Under Emergency Evacuation

Henry Liu, Civil Engineering, University of Minnesota—Twin Cities

October 11

Multiple Model Techniques in Automotive Estimation and Control

Derek Caveney, Toyota Technical Center

October 25

Technologies and Human Factors Related to the Intersection Decision Support Project

Janet Creaser, HumanFIRST Laboratory, University of Minnesota—Twin Cities

November 8

In-Vehicle Technology to Correct Teen Driving Behavior: Addressing Patterns of Risk

Shawn Brovold, Mechanical Engineering, University of Minnesota—Twin Cities

November 22

Understanding the Potential Market of Metro Transit's Ridership and Services

Kevin Krizek, Hubert H. Humphrey Institute of Public Affairs, and Ahmed El-Geneidy, Civil Engineering, University of Minnesota—Twin Cities

December 6

Development of Flexural Vibration Inspection Techniques to Rapidly Assess the Structural Health of Timber Bridge Systems

Brian K. Brashaw, Wood Materials and Manufacturing Program, Natural Resources Research Institute, and Research Staff, Northland Advanced Transportation Systems Research Laboratories, University of Minnesota—Duluth

Technical Assistance Resources

Gravel Road Maintenance: Meeting the Challenge

www.mnltap.umn.edu/publications/videos/GravelRoadMaintenance
Web streaming or 2-disc DVD set

Minnesota Snow and Ice Control: Field Handbook for Snowplow Operators

Wendy Frederickson, Jim Grothaus, Kathleen Schaefer
Report no. Mn/DOT 2005-01
www.mnltap.umn.edu/pdf/snowicecontrolhandbook.pdf
(400 KB PDF) 49 pp., \$20

Newsletters

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Print Newsletters

CTS Report

A report on transportation research, education, and outreach at the University of Minnesota (monthly)

ITS Institute Sensor

Research advances from the Intelligent Transportation Systems (ITS) Institute (periodic)

Minnesota LTAP Exchange

A newsletter of the Minnesota Local Technical Assistance Program (quarterly)

E-mail Newsletters

CTS Research E-News

The latest announcements and findings in transportation research (monthly)

CTS Freight & Logistics E-News

News and events from the community of freight and logistics professionals (quarterly)

Community Transportation E-News

The latest research, published reports, and information on community transportation (quarterly)

Minnesota LTAP Hot Topics

New publications and resources from various sources, plus other items of interest to local agencies (periodic)

AirTAP Briefings

News and how-to information from the Airport Technical Assistance Program (AirTAP) for personnel operating, maintaining, and administering Minnesota's public-use airports (quarterly)

How to Obtain These Publications

This 2006 update supplements the *CTS Publications Catalog* published in 2004 and subsequent annual updates. It lists transportation-related research reports produced by faculty and researchers at the University of Minnesota and published by CTS or the Minnesota Department of Transportation (Mn/DOT). This update also features publications, videos, and other materials produced by CTS and its affiliated programs.

Titles of publications are listed in alphabetical order under subject area. Most publications, where noted, are available in electronic format online at no charge. Publications also may be requested from CTS. A complete listing of all publications available from CTS and ordering information may be found online at:


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