

Publications Catalog

- Update

Contents	
Research Reports, by Subject Area	1
Transportation and the Economy	1
Transportation Safety and Traffic Flow	1
Transportation Infrastructure	2
Transportation Planning and the Environment	
Annual Reports	
Proceedings	3
Videos	
Technical Assistance Resources	
Newsletters	



This 2008 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

Research Reports

Transportation and the Economy

Local Road Funding History in Minnesota Barry Ryan, Thomas Stinson Report no. Mn/DOT 2007-26 www.lrrb.org/pdf/200726.pdf (664 KB PDF) 27 pp., \$18

Reasons for Recent Large Increases in Commute Durations

Gary Barnes Report no. Mn/DOT 2007-02 www.lrrb.org/pdf/200702.pdf (400 KB PDF) 63 pp., \$21

Transportation Safety and Traffic Flow

Access to Destinations: Travel Time Estimation on Arterials

Gary A. Davis, Hui Xiong Report no. Mn/DOT 2007-35 www.lrrb.org/pdf/200735.pdf (2 MB PDF) 83 pp., \$23

Benefit-Cost Analysis for Intersection Decision Support

Mike Corbett, David M. Levinson, Xi Zou Report no. Mn/DOT 2007-32 www.lrrb.org/pdf/200732.pdf (807 KB PDF) 75 pp., \$23

The Culture of Traffic Safety in Rural America Nic Ward

www.aaafoundation.org/pdf/Ward.pdf (286 KB PDF) 16 pp., \$17

Developing Driving Support Systems to Mitigate Behavioral Risk Patterns Among Teen Drivers Shawn Brovold, Nic Ward, Max Donath, Stephen

Report no. CTS 07-05 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=658 (1.7 MB PDF) 147pp., \$30

Driving Performance During 511 Information Retrieval: Cell Phone 2

Mick Rakauskas, Nic Ward Report no. Mn/DOT 2007-48 www.lrrb.org/PDF/200748.pdf (912 KB PDF) 93 pp., \$24

Employment of the Traffic Management Lab for the Evaluation and Improvement of Stratified Metering Algorithm—Phase III

Henry Liu, Xinkai Wu, Panos Michalopoulos, John Hourdos Report no. Mn/DOT 2007-13

www.lrrb.org/pdf/200713.pdf (2 MB PDF) 112 pp., \$26

Employment of the Traffic Management Lab for the Evaluation and Improvement of Stratified Metering Algorithm—Phase IV

Henry Liu, Xinkai Wu, Panos Michalopoulos, John Hourdos Report no. Mn/DOT 2007-51

Www.lrrb.org/PDF/200751.pdf (2.8 MB PDF) 91 pp., \$24

Evaluating the Effectiveness of the Minnesota Speed Management Program

Kathleen A. Harder, John Bloomfield Report no. Mn/DOT 2007-21 www.lrrb.org/pdf/200721.pdf (1.6 MB PDF) 68 pp., \$22 Evaluation of Minnesota's Operation NightCAP Program

Janet Creaser, William Aflleje, Flavia Nardi Report no. Mn/DOT 2007-29 www.lrrb.org/pdf/200729.pdf (2 MB PDF) 118 pp., \$27

Freeway Network Traffic Detection and Monitoring Incidents

A Joshi, Stefan Atev, D Fehr, A Drenner, Robert Bodor, Osama Masoud, Nikolaos P. Papanikolopoulos Report no. Mn/DOT 2007-40 www.lrrb.org/pdf/200740.pdf (4.4 MB PDF) 47 pp., \$19

Intersection Decision Support Surveillance System: Design, Performance and Initial Driver Behavior Quantization

Lee Alexander, Pi-Ming Cheng, Max Donath, Alec Gorjestani, Arvind Menon, Craig Shankwitz Report no. Mn/DOT 2007-30 www.lrrb.org/pdf/200730.pdf (6.6 MB PDF) 225 pp., \$38

Intersection Decision Support: An Overview Max Donath, Craig Shankwitz, Nic Ward, Janet Creaser

Report no. Mn/DOT 2007-33 www.lrrb.org/pdf/200733.pdf (740 KB PDF) 27 pp., \$18

Review of Georgia's Rural Intersection Crashes: Application of Methodology for Identifying Intersections for Intersection Decision Support (IDS)

Howard Preston, Richard Storm, Max Donath, Craig Shankwitz

Report no. Mn/DOT 2007-28 www.lrrb.org/pdf/200728.pdf (2.7 MB PDF) 55 pp., \$21

Review of Iowa's Rural Intersection Crashes: Application of Methodology for Identifying Intersections for Intersection Decision Support (IDS)

Howard Preston, Richard Storm, Max Donath, Craig Shankwitz

Report no. Mn/DOT 2007-27 www.lrrb.org/pdf/200727pdf (2.7 MB PDF) 47 pp., \$20

Rural and Urban Safety Cultures: Human-Centered Interventions Toward Zero Deaths in Rural Minnesota

Mick Rakauskas, Nic Ward, Susan G. Gerberich, Bruce H. Alexander
Report no. Mn/DOT 2007-41
www.lrrb.org/pdf/200741.pdf
(1.3 MB PDF) 67 pp., \$22

Safety Effects of Left-Turn Phasing Schemes at High-Speed Intersections

Gary A. Davis, Nathan Aul Report no. Mn/DOT 2007-03 www.lrrb.org/pdf/200703.pdf (646 KB PDF) 69 pp., \$22

A Simulator-Based Evaluation of Smart Infrastructure Concepts for Intersection Decision Support for Rural Thru-STOP Intersections Janet Creaser, Mick Rakauskas, Nic Ward, Jason

Laberge Report no. Mn/DOT 2007-31 www.lrrb.org/PDF/200731.pdf (3 MB PDF) 301 pp., \$45

Using Archived ITS Data to Improve Transit Performance and Management

Ahmed M. El-Geneidy, Jessica Horning, Kevin Krizek Report no. Mn/DOT 2007-44 www.lrrb.org/pdf/200744.pdf (2.5 MB PDF) 54 pp.

Transportation Infrastructure

Adaptation of the 2002 Guide for the Design of Minnesota Low-Volume Portland Cement Concrete Pavements

Iliya Yut, Shariq Husein, Carly Turgeon, Lev Khazanovich Report no. Mn/DOT 2007-23 www.lrrb.org/PDF/200723.pdf (6.4 MB PDF) 158 pp., \$31

Automated Winter Road Maintenance Using Road Surface Condition Measurements

Gurkan Erdogan, Lee Alexander, Piyush Agrawal, Rajesh Rajamani Report no. Mn/DOT 2007-37 www.lrrb.org/pdf/200737.pdf (3 MB PDF) 89 pp., \$24

Cone Penetration Testing In Pavement Design

William Dehler, Joseph F. Labuz Report no. Mn/DOT 2007-36 www.lrrb.org/pdf/200736.pdf (15.8 MB PDF) 116 pp., \$27

Determining Economic Strategies for Repair and Replacement of Low Slump Overlays of Bridge Decks

Justin M. Zimmerman, Steven A. Olson, Arturo E. Schultz
Report no. Mn/DOT 2007-14
www.lrrb.org/pdf/200714.pdf
(2.3 MB PDF) 209 pp., \$35

Development of a PC-Based Eight-Channel WIM System

Taek Mu Kwon, Bibhu Aryal Report no. Mn/DOT 2007-45 www.lrrb.org/pdf/200745.pdf (3 MB PDF) 102 pp., \$25

Implementation of Ground Penetrating Radar Yuejian Cao, Shongtao Dai, Joseph F. Labuz, John

Pantelis
Report no. Mn/DOT 2007-34

www.lrrb.org/pdf/200734.pdf (1.9 MB PDF) 29 pp., \$18

Incorporation of Fatigue Detail Classification of Steel Bridges into the Minnesota Department of Transportation Database

Adam Y. Lindberg, Arturo E. Schultz Report no. Mn/DOT 2007-22 www.lrrb.org/pdf/200722.pdf (21.6 MB PDF) 191 pp., \$34

Investigation of Low-Temperature Cracking in Asphalt Pavements National Pooled-Fund Study 776

Mihai O. Marasteanu, Adam Zofka, Mugur Turos, Xinjun Li, Raul Velasquez, Xue Li, William Buttlar Report no. Mn/DOT 2007-43 www.lrrb.org/pdf/200743.pdf (6.9 MB PDF) 338 pp. \$48

MnROAD Lessons Learned

Derek Tompkins, Lev Khazanovich Report no. Mn/DOT 2007-06 www.lrrb.org/pdf/200706.pdf (914 KB PDF) 63 pp., \$21

Modeling Issues Associated with Sensor Technologies for the Nondestructive Evaluation of Timber Bridges

Harlan W. Stech
Report no. CTS 07-04
www.cts.umn.edu/Publications/ResearchReports
/pdfdownload.pl?id=860
(3.8 MB PDF) 43 pp., \$19

Pavement Design Using Unsaturated Soil Technology

Satish Gupta, Andry Ranaivoson, Tuncer Edil, Craig Benson, Auckpath Sawangsuriya Report no. Mn/DOT 2007-11 www.lrrb.org/pdf/200711.pdf (4 MB PDF) 246 pp., \$39

Resilient Modulus Development of Aggregate Base and Subbase Containing Recycled Bituminous and Concrete for 2002 Design Guide and Mn/Pave Pavement Design

Thomas M. Westover, Joseph F. Labuz, Bojan Guzina Report no. Mn/DOT 2007-25 www.lrrb.org/pdf/200725.pdf (1 MB PDF) 55 pp., \$20

Resilient Modulus and Strength of Base Course With Recycled Bituminus Material

Woosung Kim, Joseph F. Labuz Report no. Mn/DOT 2007-05 www.lrrb.org/pdf/200705.pdf (11.7 MB PDF) 270 pp., \$42

Shear Capacity of Prestressed Concrete Beams Brian Runzell, Carol K. Shield, Catherine E. French Report no. Mn/DOT 2007-47 www.lrrb.org/pdf/200747.pdf

(7.9 MB PDF) 237 pp., \$39

Strength and Stability of Prestressed Concrete Through-Girder Pedestrian Bridges Subjected to Vehicular Impact

Eray Baran, Arturo E. Schultz, Catherine E. French Report no. Mn/DOT 2007-08 www.lrrb.org/pdf/200708.pdf (10.6 MB PDF) 244 pp., \$39

Transportation Planning and the Environment

Access to Destinations: Refining Methods for Calculating Non-Auto Travel Times Kevin Krizek, Ahmed M. El-Geneidy, Michael Iacono,

Jessica Horning Report no. Mn/DOT 2007-24 www.lrrb.org/pdf/2007-24.pdf (9 MB PDF) 144 pp., \$29

Asking the Right Questions About Transportation and Land Use: Access to Destinations Research Summary No. 1

Report no. CTS 07-03 www.cts.umn.edu/access-study/publications documents/2007-0315_AccessSummary.pdf (1.2 MB) 8 pp., \$16

Biological Control of Canada Thistle in Wetland Prairie Restoration

Kari Eichstaedt, Donald Wyse, Gregg Johnson Report no. Mn/DOT 2007-38 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=772 (574 KB PDF) 115 pp., \$26

Commuter Bicyclist Behavior and Facility Disruption

Francis Harvey, Kevin Krizek Report no. Mn/DOT 2007-15 www.lrrb.org/pdf/200715.pdf (2 MB PDF) 60 pp., \$21

Enhancing Environment and Health in Transportation Project Design

John T. Carmody, Virajita Singh Report no. CTS 07-08 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=840 (19.6 MB PDF) 56 pp., \$21

Enhancing Transportation: The Effects of Public Involvement in Planning and Design Processes— Executive Summary

Carissa S. Slotterback, Meagan Beekman, Cynthia Carlson, Jenn Reed Report no. CTS 07-10 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=824 (1.8 PDF) 28 pp., \$18

How Well-Designed Transportation Projects Make Great Places

Andrew Goldberg
Report no. CTS 07-06
www.cts.umn.edu/Publications/ResearchReports
/pdfdownload.pl?id=828
(5.9 MB PDF) 70 pp., \$22

Interim Report to the U.S. Congress on the Nonmotorized Transportation Pilot Program SAFETEA-LU Section 1807 FHWA

www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=868 (829 KB PDF) 69 pp., \$22

Management Practices for Weed Control in Roadway Rights-of-Way

Caleb Arika, Donald Wyse, R Moon Report no. Mn/DOT 2007-42 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=806 (5.5 MB PDF) 228 pp., \$38

Moving Communities Forward: Synthesis

Lance M. Neckar
Report no. CTS 07-12
www.cts.umn.edu/Publications/ResearchReports
/pdfdownload.pl?id=830
(2.7 MB PDF) 47 pp., \$20

Moving Design: Spaces of Transportation— Executive Summary

Ann Forsyth, Justin Jacobson, Katie Thering Report no. CTS 07-09 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=822 (3 MB PDF) 42 pp., \$19

Performance Assessment of Underground Stormwater Treatment Devices

Matthew Wilson, John S. Gulliver, Omid Mohseni, Ray Hozalski Report no. Mn/DOT 2007-46 www.lrrb.org/PDF/200746.pdf (4.5 MB PDF) 80 pp., \$23

The Safety of Pedestrian and Bicycle Travel in Minnesota: Inventory, Analysis and Prospectus Kevin Krizek, Gavin Poindexter, Ahmed M. El-Geneidy, Edward Sanderson

Report no. Mn/DOT 2007-04 www.lrrb.org/pdf/200704.pdf (2.3 MB PDF) 114 pp., \$26

Traffic Safety Methodologies

Gary A. Davis
Report no. CTS 07-11
www.cts.umn.edu/Publications/ResearchReports
/pdfdownload.pl?id=826
(544 KB PDF) 12 pp., \$16

The Transportation Needs of People with Developmental Disabilities

Rania Wasfi, David M. Levinson Report no. CTS 07-02 www.cts.umn.edu/pdf/CTS-07-02.pdf (2 MB PDF) 97 pp., \$25

The Transportation Needs of Seniors

David M. Levinson, Rania Wasfi Report no. CTS 07-01 www.cts.umn.edu/pdf/CTS-07-01.pdf (4.6 MB PDF) 195 pp., \$25

Transportation as Catalyst for Community Economic Development

John S. Adams, Barbara J. VanDrasek Report no. CTS 07-07 www.cts.umn.edu/Publications/ResearchReports /pdfdownload.pl?id=838 (19.7 MB PDF) 168 pp., \$32

Annual Reports

2007 CTS Annual Report

www.cts.umn.edu/Publications/AnnualReports/ (2.8 MB PDF) 40 pp.

2007 ITS Institute Annual Report

www.its.umn.edu/Publications/AnnualReport/2007 (4.9 MB PDF) 60 pp.

2007 Local OPERA Program Annual Report

http://www.mnltap.umn.edu/About/Programs /OPERA/#AnnualReport (391 KB PDF) 16 pp.

Proceedings

2007 Access to Destinations Conference Proceedings

August 23-24, 2007, Minneapolis, Minnesota www.cts.umn.edu/Publications /ProceedingsPresentations/#Proceedings (1 MB PDF) 36 pp., \$16

11th Annual Freight and Logistic Symposium November 30, 2007, Minneapolis, Minnesota

www.cts.umn.edu/Publications /ProceedingsPresentations/#Proceedings (376 KB PDF) 12 pp., \$15

Minnesota Pavement Conference Session Summaries

February 15, 2007, St. Paul, Minnesota www.cts.umn.edu/Publications //ProceedingsPresentations/#Proceedings (468 KB PDF), 21 pp., \$16

Toward Zero Deaths 2007 Conference September 17-18, 2007, Duluth, Minnesota

www.cts.umn.edu/Publications /ProceedingsPresentations/#Proceedings (1.63 MB PDF) 20 pp., \$16

Videos

Local Government Video Catalog, 2007 www.mnltap.umn.edu/pdf/VideoCatalog_2007.pdf (1.1 MB PDF) 118 pp., \$26

ITS Institute Seminar Series—Fall Semester 2007

Available for viewing online at: www.its.umn.edu/Events/SeminarSeries/2007/

September 11

"Driver Performance During 511 Traveler Information Retrieval"

Michael Rakauskas, Research Associate, HumanFIRST Program, ITS Institute, University of Minnesota—Twin Cities

September 25

"Bus Signal Priority Based on GPS and Wireless Communications"

Chen-Fu Liao, Minnesota Traffic Observatory, University of Minnesota—Twin Cities

October 9

"Mass Transit Surveillance and Early Warning System"

Vassilios Morellas, Department of Computer Science and Engineering, University of Minnesota—Twin Cities

November 6

"Influence of a Haptic Driver Support System on Information Processing, Attentional Resource Management, and Driving Performance"

Michael P. Manser, HumanFIRST Program, University of Minnesota—Twin Cities

November 13

"Voice-Based versus Visual-Manual Interfaces and Driver Distraction"

Louis Tijerina, Ph.D., Senior Technical Specialist, Ford Motor Company

November 20

"School Travel and the Implications for Advances in Transportation Related Technology"

Elizabeth Wilson, Humphrey Institute of Public Affairs, University of Minnesota–Twin Cities

December 4

"Modeling Infrastructure Interdependencies Using Multilayer Networks"

Professor of Civil Engineering, Director, NEXTRANS Center, USDOT Region V Regional UTC, Purdue University

Technical Assistance Resources

Local Government Video Catalog, 2007 www.mnltap.umn.edu/pdf/VideoCatalog_2007.pdf (1.1 MB PDF) 118 pp., \$26

Newsletters

CTS publishes print and electronic newsletters covering many facets of transportation, including research, public policy, and engineering. Subscribe online at:

www.cts.umn.edu/publications/newsletters

Print Newsletters

CTS Report

A monthly 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)

AirTAP Briefinas

News and how-to information for personnel operating, maintaining, and administering Minnesota's public-use airports (periodic)

Available in both print and electronic formats

E-mail Newsletters

CTS Research E-News

The latest announcements and findings in transportation research (monthly)

Access to Destinations E-News

Updates on the Access to Destinations Study, featuring research results, event announcements, and related information (periodic)

CTS Freight & Logistics E-News

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

Community Transportation E-News

Events and initiatives involving non-traditional transit and services (periodic)

Minnesota LTAP Hot Topics

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

Rural Safety News

The latest research and resources concerning rural safety from the Center for Excellence in Rural Safety, or CERS (quarterly)

TERRA E-News

A newsletter for the Transportation Engineering and Road Research Alliance (quarterly)

How to Obtain These Publications

This 2008 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, the Minnesota Department of Transportation (Mn/DOT), or the Minnesota Local Road Reseach Board (LRRB). 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:

www.cts.umn.edu/publications

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