


**Pre-Conference Proceedings
of the
86th Annual
Purdue Road School**


March 21-22, 2000



CO-CHAIRMEN

Charles F. Scholer
Professor, School of Civil Engineering
Faculty Representative, Indiana LTAP
Local Technical Assistance Program


Kumares C. Sinha
Professor, School of Civil Engineering
Director, Joint Transportation Research Program



CO-PROGRAM COORDINATORS

Thomas C. Martin
Program Manager, Indiana LTAP
Local Technical Assistance Program

Karen S. Hatke
Program Coordinator
Joint Transportation Research Program



**Purdue University
West Lafayette, Indiana**

Table of Contents

<i>1999 PURDUE ROAD SCHOOL HIGHLIGHTS</i>	<i>i</i>
<i>2000 PURDUE ROAD PLANNING COMMITTEE</i>	<i>iii</i>
<i>2000 DIRECTORY OF OFFICIALS</i>	<i>iv</i>
<i>2000 PURDUE ROAD SCHOOL PROGRAM</i>	<i>ix</i>
<i>OPENING SESSION</i>	<i>1</i>
<i>Your Transportation Personality...Understanding Why Stakeholders' Transportation Interests</i>	<i>5</i>
Cristine Klika, Commissioner, INDOT	
<i>GIS AS A MANAGEMENT TOOL</i>	<i>9</i>
<i>GIS as a Management Tool: City Perspective</i>	<i>13</i>
John Burkhardt, Administrator, Maintenance Support, Department of Public Works, City of Indianapolis	
David Mockert, Administrator, Indianapolis/Marion County GIS, Department of Public Works, City of Indianapolis/Marion County	
Gary Vandegriff, Administrator, Street Maintenance Operations, Department of Public Works, City of Indianapolis	
<i>TRANSPORTATION 2000 - NOT JUST HIGHWAYS ANYMORE</i>	<i>47</i>
<i>Indiana High Speed Rail</i>	<i>51</i>
Dr. Tim Watson, Board Member, Indiana High Speed Rail Association	
<i>The Benefits of Aviation and Local Airports</i>	<i>83</i>
Maria Muia, Aeronautics Section Manager, Intermodal Division, INDOT	
<i>SAFETY ISSUES</i>	<i>87</i>
<i>Road Safety Audits</i>	<i>91</i>
Patrick Hasson, Safety Engineer, FHWA Midwestern Resource Center	
<i>Traffic Records Improvements</i>	<i>99</i>
Bob Zahnke, Director, Automotive Transportation Center, Purdue University	
<i>The Three "E"s of Operation Lifesaver</i>	<i>111</i>
Thomas Kinser, State Coordinator/President, Indiana Operation Lifesaver	
<i>MUTCD UPDATE</i>	<i>117</i>
<i>Comparison of Indiana and Federal MUTCD</i>	<i>121</i>
Tom Martin, Program Manager, Indiana LTAP, Purdue University	
<i>Sign and Pavement Marking Retro-Reflectivity Standards</i>	<i>155</i>
Cathy Satterfield, Geometric Design and Safety Engineer, FHWA Midwestern Resource Center	

LISTENING FOR SUCCESS	161
<i>Listening for Success</i>	165
A. J. Koss, Facilitator, Innovative Training & Consulting	
Stefanie Toth, Facilitator, Innovative Training & Consulting	
RAILROAD CROSSING IMPROVEMENTS	171
<i>Use of Locomotive Horns at Highway-Rail Grade Crossings</i>	175
Alan Hallstrom, Chief Inspector, Federal Railroad Administration	
CONTRACTING AND CONSTRUCTION ISSUES	189
<i>Expanded Polystyrene (EPS) as Lightweight Fill for Bridge Approach Abutments</i>	193
Athar Khan, Chief Geotechnical Engineer, Materials and Tests Division, INDOT	
TRAFFIC ISSUES/INSTITUTE OF TRANSPORTATION ENGINEERS	201
<i>Operation of Closed Loop Signal Systems</i>	205
Darcy Bullock, Associate Professor, School of Civil Engineering, Purdue University	
BACK TO BASICS - EROSION AND SEDIMENT CONTROL	215
ENVIRONMENTAL ISSUES	219
<i>Phase II Storm Water Developments</i>	223
Lori Gates, Stormwater Coordinator, Office of Water Management, IDEM	
<i>Opportunities for Wetlands Waste Water Treatment at Transportation Facilities</i>	229
Jimmy F. New, President and Founder, J. F. New & Associates, Wetlands Scientists and Environmental Engineers	
INDOT MEETING	235
<i>INDOT Long-Range Research Focus Group Project</i>	241
Don Johnson, Technology Transfer Engineer, Federal Highway Administration	
Dr. Barry Partridge, Chief, Research Division, INDOT	
Kumares Sinha, Director, Joint Transportation Research Program, Purdue University	
<i>Video Camera Inspection System</i>	263
Dr. Bob McCullouch, Information Technology Administrator, Joint Transportation Research Program, Purdue University	
<i>Performance Related Specifications for Concrete Pavement</i>	281
Tim Bertram, Chief, Contracts and Construction Division, INDOT	
Dr. Tommy Nantung, Pavement and Materials Engineer, Research Division, INDOT	
Richard Smutzer, Chief, Materials and Tests Division, INDOT	
Jason Weiss, Assistant Professor, School of Civil Engineering, Purdue University	
FROM DULL TO DYNAMIC: TRANSFORMING YOUR PRESENTATIONS	287
<i>From Dull to Dynamic: Transforming Your Presentations</i>	291
Josh Boyd, Assistant Professor, Department of Communication, Purdue University	
INFORMATION TECHNOLOGY UPDATE	295
PAVEMENT MAINTENANCE ISSUES	299
<i>Ultra-Thin Whitetopping (UTW) for Pavement Rehabilitation</i>	303
Mike Byers, Executive Director, Indiana Chapter, American Concrete Pavement Association	

<i>INTELLIGENT TRANSPORTATION SYSTEMS (ITS) IN INDIANA</i>	317
<i>MAINTENANCE ISSUES</i>	321
<i>Maintenance Management Systems</i>	327
Mark Burton, Maintenance Management Supervisor, Operations Support Division, INDO	
<i>Zero Velocity Salt Spreader</i>	341
Dr. Tommy Nantung, Pavement and Materials Engineer, Research Division, INDOT	
<i>Culvert-Slip-Liner Repair Method</i>	357
Richard Thomas, Operations Field Engineer, Vincennes District, INDOT	
<i>Culvert-Slip-Liner Repair Method</i>	368
Jerry Thompson, District Operations Engineer, Vincennes District, INDOT	
<i>Considerations for Pipe Replacement in Maintenance</i>	373
Russell Fowler, District Maintenance Field Engineer, Vincennes District, INDOT	
<i>BACK TO BASICS - SELECTION OF EARTH RETAINING SYSTEMS</i>	389
<i>HIGHWAY ADMINISTRATION AND MANAGEMENT</i>	393
<i>CPAs Are Taking a New Look at Roads...What It Means to You</i>	397
Randy Finden, Project Manager, Governmental Accounting Standards Board	
<i>Certification and CE Requirements for Highway Engineers and Supervisors: A Panel</i>	417
Andrew Cunningham, Highway Liaison Manager, Local Liaison Division, Nebraska Department of Roads	
<i>FINANCING LOCAL PROJECTS</i>	427

