

Sunday, January 12

Annual TTI Reception 6:30 p.m. - 8:00 p.m. Salon 3, Marriott Wardman Park Hotel

Session	Session Title		
Jan 12-Sun			
8:00AM - 12:00PM			
Marriott - Congressional			
A0000	Technical Activities Council * Members Only	Presiding: Katherine F. Turnbull	Meeting
9:00AM - 12:00PM			
Marriott - Washington B1			
105	Doctoral Student Research in Asphalt Materials and Mixtures <i>Examination of Damage Mechanism in Asphalt Under Mechanical Loading Using Atomic Force Microscope</i> Rezwan Jahangir		Workshop
	<i>Influence of Evaporative Recovery Methods on Microstructure Characterization and Rheological Behavior of Emulsion Residues</i> Pooyan Kabir		
115	State-of-the-Art Use and Application of High-Performance Thin Asphalt Overlays <i>Texas Experience with Thin Asphalt Overlays</i> Cindy K. Estakhri Tom Scullion		Workshop
12:00PM - 2:00PM			
Marriott - Stone's Throw Private Dining Room			
A0000	Technical Activities Council/Section Chairs' Lunch *Members Only	Presiding: Katherine F. Turnbull	Lunch
1:30PM - 4:30PM			
Hilton - Columbia Hall 4			
191	Challenge of Documenting Complex Traveler Response Scenarios and Benefits of Having Such Data to Inform Transportation Policies <i>Impact of Traffic Images on Mode Choice in Stated-Preference Surveys</i> Mark W. Burris		Workshop

Session Session Title

Jan 12-Sun

1:30PM - 4:30PM

Hilton - Columbia Hall 4

199 Reimagining the Public Meeting

Workshop | AICP Certification Maintenance Session

Table Presentation: Expanding and Evaluating Public Participation Through Virtual Open Houses

Tina Geiselbrecht

Benjamin Ettelman

Marriott - Washington B1

170 Reliable Real-Time Traveler Information Systems

Presiding: Sushant Sharma

Workshop

Effectiveness of Different Approaches to Disseminating Traveler Information on Travel Time Reliability – Results from SHRP2 L14

Beverly T. Kuhn

AFD10 Pavement Management Systems International Conferences Subcommittee

Presiding: Roger E. Smith

Subcommittee

Shoreham - Ambassador

178 Advancing the State of Freight Transportation, Part 2: Measuring Freight Fluidity Performance (Part 1, Session 119)

Workshop

The Future of Freight Fluidity Measurement - Discussion

Juan Carlos Villa

2:30PM - 4:00PM

Shoreham - Regency Ballroom

A0000 New Attendee Welcome Session

Getting Involved in TRB - Featuring TTI-produced TRB welcome video

Katherine F. Turnbull

4:00PM - 6:00PM

Hilton - Jay

AD000 New Chair Orientation

Presiding: Katherine F. Turnbull

5:00PM - 6:30PM

Marriott - Park Tower Suite 8226

AHB2 Freeway Operations Research Needs Subcommittee

Presiding: Christopher M. Poe

Subcommittee

6:00PM - 7:00PM

Marriott - McKinley

AHB0 Operations and Preservation, and Safety and System Users Groups Leadership Reception *Members Only

Presiding: Paul J. Carlson

Reception

Session Session Title

Jan 13-Mon

7:00AM - 8:00AM

Hilton - Cardozo

ABJ40 Household Travel Surveys Subcommittee

Presiding: Stacey Bricka

Subcommittee

8:00AM - 9:45AM

Hilton - Lincoln West

238 Energy Development and the Transportation System: Update on TRB Activities

Presiding: Katherine F. Turnbull

Lectern Session | AICP Certification Maintenance Session

240 Modeling Applications

Presiding: Nicholas S. Wood

Lectern Session | Practice Ready Papers

Marriott - Delaware B

218 Concrete Durability with Respect to Freeze-Thaw Behavior, Early Age Cracking, and Chloride Penetration

Lectern Session | Practice Ready Papers

Application of Poromechanics in Sustainable Concrete Pavement Exposed to Freezing Temperatures

Syeda Rahman

Eyad A. Masad

Dan G. Zollinger

224 Safety Data, Analysis, and Evaluation

Lectern Session

Advancing Safety Performance Monitoring at Signalized Intersections Using Connected Vehicle Technology

Praprut Songchitruksa

Liteng Zha

Limiting Driveway Access at Intersections: Sample Application of Value-of-Research Evaluation

Michael Paul Pratt

8:30AM- 10:15AM

Marriott - Salon 2

246 Advances in Pavement Preservation, Pavement Management Systems, and Their Integration

Poster Session | Practice Ready Papers

Bayesian Model for Predicting Performance of Pavements Treated with Thin Hot-Mix Asphalt Overlays

Nasir G. Gharaibeh

8:30AM - 10:15AM

Hilton - International Center

257 Community Impact Assessment: Methods, Tools, and Outcomes

Poster Session

Community Impacts in the Context of Disrupted Networks: Focus on U.S.-Mexico Border

Sharada R. Vadali

Jan 13-Mon

8:30AM - 10:15AM

Hilton - International Center

- 259 Paratransit Innovations** Presiding: Luca Quadrifoglio *Poster Session | Practice Ready Papers*
ADA Paratransit Public Feedback Tool: Houston METRO Case Study
Suzie Edrington
Linda K. Cherrington
- 260 Past Achievements and Future Solutions in Accessible Transportation and Mobility** *Poster Session | Spotlight Session | Practice Ready Papers*
Innovative Operating Strategies for Paratransit Services with Zoning
Wei Lu
Chung-Wei Shen
Luca Quadrifoglio
- Marriott - Salon 2
- 248 Barrier Design and Performance and Crashworthy Sign Support** *Poster Session | Practice Ready Papers*
Design and Full-Scale Testing of California Type 742 TL-5 Bridge Rail on Autopistas 25 Elevated Bridge in Buenos Aires, Argentina
William Frederick Williams
Development and Compliance Testing of Nonpinned End Treatment for Low-Profile Portable Concrete Barrier
Michael S. Brackin
William Lynn Beason
Roger P. Bligh
Development of Crashworthy Support System for Large Temporary Guide Signs
Roger P. Bligh
Dusty Arrington
- 253 Work Zone Traffic Control for Safety and Mobility** *Poster Session | Practice Ready Papers*
Cost-Effectiveness Evaluation of Steady-Burn Warning Lights in Work Zones
LuAnn Theiss
Michael Paul Pratt
Gerald L. Ullman
Driver Eye Reactions to Work Zone Lighting
Melisa Dayle Finley
Gerald L. Ullman
Jeffrey David Miles
Michael Paul Pratt

Jan 13-Mon

10: 5AM - 12:30PM

Marriott - Thurgood Marshall West

271 Managing Traffic on Freeways, Part 2: What Should We Consider Pursuing? (Part 1, Session 222) *Lectern Session*

Capturing and Using "Big Data" to Manage Traffic

Timothy J. Lomax

276 Rethinking the Manual on Uniform Traffic Control Devices Presiding: Paul J. Carlson *Lectern Session*

NCUTCD 20-year vision for the MUTCD

H. Gene Hawkins

AHB6 High-Speed Roadways Subcommittee Presiding: Karen K. Dixon *Subcommittee*

Shoreham - Diplomat

281 Evolving North American Ports of Entry: Innovation on 20th Anniversary of North American Free Trade Agreement Presiding: Juan Carlos Villa *Lectern Session | AICP Certification Maintenance Session*

283 Pavement Roughness Evaluation: New Technology *Lectern Session | Practice Ready Papers*

Comparative Testing of Lasers for Ride Quality Measurement on HMA Pavements

Emmanuel G. Fernando

10:45AM - 12:30PM

Hilton - International Center

319 Congestion Pricing and Managed Lanes Showcase *Poster Session*

Off-Peak Direction Operational Analysis on Katy Managed Lanes

Robert Joseph Benz

Operations, Maintenance, and Enforcement Performance-Based Specifications for Managed High-Occupancy-Vehicle Lanes in Dallas, Texas

Stephen Ranft

Separation of Preferential Lanes Using Flexible Pylons

Robert Joseph Benz

Jan 13-Mon

10:45AM- 12:30PM

Hilton - International Center

320 Congestion Pricing Issues

Poster.Session/Practice.Ready

Examination of Paid Travel on the I-85 Express Lanes

Nicholas S. Wood

Mark W. Burris

Santosh Rao Danda

Impacts to Transit from Seattle Urban Partnership Agreement Program

Praprut Songchitruksa

Summary of 2013 National Symposium on Mileage-Based User Fees

Richard Tremain Baker

323 Current Issues in Transportation Economics

Presiding: Mark W. Burris

Poster Session

327 Performance Measurement and Management

Poster Session | Practice Ready Papers

Lessons Learned for Transportation Agencies Preparing for MAP-21 Performance Management Requirements Related to Mobility and Reliability

William L. Eisele

Timothy J. Lomax

David Lynn Schrank

Shawn M. Turner

Marriott - Salon 2

300 Correlation of Soil Properties and Evaluation of Unknown Foundations for Bridges

Poster Session

Evaluation of Unknown Foundations for Bridges Subjected to Scour

Negin Yousefpour

Zenon Medina-Cetina

Jean-Louis Briaud

303 Implementing Unsaturated Soil Mechanics in Pavement Design Procedures

Poster Session | Practice Ready Papers

Development of Soil-Water Characteristic Curve for Flexible Base Materials Using Methylene Blue Test

Hakan Sahin

Fan Gu

Robert Leonard Lytton

1:30PM - 3:15PM

Hilton - Columbia Hall 8

362 Seventh Annual Competition and Call for Communicating Concepts with John and Jane Q. Public

Presiding: Terri Parker

Lectern Session | AICP Certification Maintenance Session

Session Session Title

Jan 13-Mon

1:30PM- 3:15PM

Hilton - Georgetown East

353 Advances in Geospatial Technology Applications in Transportation

Presiding: Cesar Quiroga

Lectern Session | Practice Ready Papers

364 Trends in U.S. Transportation Systems: Enhancing Economic Development

Presiding: Katherine F. Turnbull

Lectern Session | AICP Certification Maintenance Session

ADC20 Transportation Air Quality Research Subcommittee

Presiding: Josias Zietsman

Subcommittee

Marriott - Thurgood Marshall East

336 Infrastructure Corrosion, Part 1 (Part 2, Session 443)

Lectern Session

Inspection and Repair of Voids in Grouted Posttensioned Bridge Construction

Stefan Hurlebaus

AFB10 Geometric Design Technical Subcommittee

Presiding: Marcus A. Brewer

Subcommittee

Shoreham - Regency Ballroom

352 New Research on Inland Marine Transportation System

Lectern Session | Practice Ready Papers

New Approaches for Lock and Dam Maintenance Funding

Annie Protopapas

Transportation Rate Analysis: Gulf Intracoastal Waterway—East, Arkansas River, and Red River

Annie Protopapas

AT015 Freight Transportation Planning and Logistics Committee

Presiding: Xiubin Bruce Wang

Committee

1:30PM- 5:30PM

Marriott - Washington B5

AHD1 Pavement Preservation Committee

Presiding: Roger E. Smith

Committee

AHD5 Signing and Marking Materials Committee

Committee

Evaluation of Sign Sheeting Service Life in Wyoming

Adam M. Pike

Paul J. Carlson

2:00PM - 3:45PM

Hilton - International Center

384 Travel Characteristics Past, Present, and Future: Communicating Information
Derived from National Household Travel Survey, Part 2 (Part 1, Session TPS14-
031) [13]

Poster Session

Use of 2001 and 2009 NHTS Data to Visualize Impact of Great Recession on Pickup Truck Travel Across the United States

Chris Lynn Simek

Jan 13-Mon

2:00PM- 3:45PM

Hilton - International Center

381 Innovations in Vehicle Detection [14] *Poster Session*

Process to Determine Motorcycle Count Locations

Dan Middleton

Srinivas Reddy Geedipally

382 Preparing for MAP-21: Measuring Travel Time and Travel Time Reliability *Poster Session*

Application of Finite Mixture of Regression Model with Varying Mixing Probabilities to Urban Arterial Travel Time Estimation

Kai Yin

Stochastic Volatility Modeling Approach to Account for Uncertainties in Travel Time Reliability Forecasting

Ranye Sun

385 Urban Transportation Data Frontiers: New Uses and Applications *Poster Session | Practice Ready Papers*

Automated Congestion Bottleneck Identification for MAP-21 Performance Measure Reporting Using Large Statewide Speed Data Sets

John Wikander

William L. Eisele

David Lynn Schrank

Marriott - Salon 2

368 Highway Safety Performance *Poster Session | Practice Ready Papers*

Bayesian Methodology Incorporating Highway Safety Manual for Fitting and Updating Safety Performance Functions

Dominique Lord

Injury Severity Analysis of Crashes on Ramps and at Crossroad Ramp Terminals

Srinivas Reddy Geedipally

Michael Paul Pratt

Dominique Lord

Safety Performance for Roundabout Applications in Oregon

Karen K. Dixon

Jan 13-Mon

2:00PM- 3:45PM

Marriott - Salon 2

370 Research in Statistical Methods in Transportation

Poster Session

Application of Hyper-Poisson Generalized Linear Model for Analyzing Motor Vehicle Crashes

Seyed Hadi Khazree

Srinivas Reddy Geedipally

Dominique Lord

Applying the Generalized Waring Model for Investigating Sources of Variance in Motor Vélib' Bikesharing System Vehicle Crash Analysis

Yichuan Peng

Dominique Lord

Yajie Zou

The Poisson Inverse Gaussian (PIG) Generalized Linear Regression Model for Analyzing Motor Vehicle Crash Data

Liteng Zha

Dominique Lord

Yajie Zou

Shoreham - Blue Room Foyer

372 Advanced Analysis of Flexible Pavements and Performance

Poster Session | Practice Ready Papers

Reliability-Based Mechanistic-Empirical Flexible Pavement Design

Tom Scullion

Fujie Zhou

Sheng Hu

373 Current Environmental Issues in Marine Transportation

Presiding: Carl James Kruse

Poster Session | Practice Ready Papers

3:45PM- 5:30PM

Hilton - Columbia Hall 6

413 Future Directions for Transit Geographic Information Systems

Presiding: Linda K. Cherrington

Lectern Session

418 Research on Transportation Planning in Small and Medium-Sized Communities

Lectern Session | AICP Certification Maintenance Session
| Practice Ready

Toward Understanding Cross-Border Pedestrian Travel: Resource Paper with a Focus on Paso Del Norte Bridge in El Paso, Texas

Ipek Nese Sener

Karen Marie Lorenzini

Luis David Galicia

Rafael Manuel Aldrete

Jan 13-Mon

3:45PM- 5:30PM

Marriott - Salon 3

386 Access Management Manual and Application Guidelines

Lectern Session

Access Management Application Guidelines Tools and Resources

Karen K. Dixon

Overview of Second Edition of Access Management Manual

Vergil G. Stover

396 Safety and Behavioral Impacts of Roadway Visual Information

Lectern Session

Evaluating Unfamiliar Driver Visual Behavior on Horizontal Curves Using Fixation Heat Maps

Bradford K. Brimley

Paul J. Carlson

H. Gene Hawkins

Investigating a Relationship Between Luminous Intensity, Optical Power, and Discomfort Glare of Rapid-Flashing Traffic Control Devices

Kay Fitzpatrick

James Robertson

AND2 Digital Billboards Joint Subcommittee of AND20, AND10, AND30, AND40

Subcommittee

Statistical Analysis of the Traffic Safety Impacts of On-Premise Digital Signs

H. Gene Hawkins

Dominique Lord

Marriott, - Salon 1

392 Moisture Damage Characterization of Hot- and Warm-Mix Asphalt

Lectern Session | Practice Ready Papers

Novel Method to Evaluate Moisture Susceptibility and Rutting Resistance of Asphalt Mixtures Using Hamburg Wheel Tracking Test

Fan Yin

Edith Arambula

Robert Leonard Lytton

Amy Epps Martin

Lorena Garcia Cucalon

Shoreham - Regency Ballroom

401 Freight Rail Operations Research

Lectern Session

Rail Preservation and Economic Development Activities of Local Rail Planning Districts in Texas

Curtis A. Morgan

Jeffery E. Warner

Jan 13-Mon

3:45PM- 5:30PM

Shoreham - Regency Ballroom

**405 Moving U.S. Agricultural Commodities to Trade Gateways for Exports:
Challenges and Opportunities**

Lectern Session

Impacts of Panama Canal Expansion on U.S. Cotton Exports

Flynn Adcock

Parr Rosson

AW03 Marine Environmental Committee

Presiding: Carl James Kruse

Committee

4:15PM- 6:00PM

Hilton - International Center

428 Advances in Programming and Investment Decision-Making Processes

Poster Session | Practice Ready Papers

Optimal Investment Decision-Making Strategies for Safety Improvements to Urban Intersections

Sushant Sharma

431 Latest Research in Planning for Mega-Regions

Poster Session | Practice Ready Papers

Supply Chain Consistent Threshold Accessibility Measures for Mega-Region Economic Development

Sharada R. Vadali

432 Public Involvement in Transportation

Poster Session | Practice Ready Papers

Put It There: Geographic Specificity of Public Engagement Methods in Transportation Planning

Greg Phillip Griffin

**434 Transportation Planning and Analysis in China and Cross-Border Travel in the
United States**

Poster Session

Synthesis on Cross-Border Travel: Focus on El Paso, Texas

Ipek Nese Sener

Luis David Galicia

Rafael Manuel Aldrete

Marriott - Salon 2

421 Innovative Applications of Highway Capacity Manual 2010 Methodologies (12)

Poster Session | Practice Ready Papers

Determining Level of Service on Freeways and Multilane Highways with Higher Speeds

James Robertson

Kay Fitzpatrick

Eun Sug Park

Vichika Iragavarapu

Jan 13-Mon

4:15PM- 6:00PM

Marriott - Salon 2

- 422** **Managed Lanes (13)** *Poster Session | Practice Ready Papers*
Can Psychological Questions Help Predict Managed Lane Use?
Lisa Larsen
Mark W. Burris
- 423** **Methods for Field Assessment and Evaluation of Driving Behavior and Roadway Safety Systems** *Poster Session*
Driver Yielding at Traffic Control Signals, Pedestrian Hybrid Beacons, and Rectangular Rapid Flashing Beacons in Texas
Kay Fitzpatrick
Marcus A. Brewer
Raul E. Avelar
Impacts of Rapid-Flashing Beacons on Legibility Distance
Kay Fitzpatrick
James Robertson
Raul E. Avelar
Lessons Learned with Prototype Mobile Luminance Measurement System
Jeffrey David Miles
Hancheng Ge
- 425** **Research on Traffic Control Devices (12)** Presiding: Paul J. Carlson *Poster Session*
Examining Impacts of Increasing Speed Limit on Speed Distribution: Case Study
Negin Alemazkoor
H. Gene Hawkins
Traffic Control Devices at Channelized Right-Turn Lanes: Recommended Guidelines for Manual on Uniform Traffic Control Devices
Lacy S. Brown
H. Gene Hawkins
- 426** **Transportation Safety Management** *Poster Session*
Economic Competitiveness and Equity-Based Safety Improvement Allocation Model for Urban Intersections
Sushant Sharma
- Shoreham - Blue Room Foyer
- 427** **Freight Systems and Marine Group Work in Progress** *Poster Session*
Determining Costs and Economic Impacts of Critical Infrastructure Failure in the El Paso-Ciudad Juarez Region
Shailesh Chandra

Jan 13-Mon

6:00PM- 7:15PM

Marriott - Salon 1

A Thomas B. Deen Distinguished Lecture and Presentation of Awards

Awards

Katherine F. Turnbull

7:30PM - 9:30PM

Hilton - Columbia Hall 7

475 Rural Public and Coordinated Human Services Transportation: Using Nontraditional Performance Indicators to Measure Impacts

Lectern Session | AICP Certification Maintenance Session

When One Size Does not Fit All: Developing Relevant Performance Measures for Coordinated Human Service and Rural Transit Projects

Meredith Highsmith

7:30PM- 9:30PM

Marriott - Salon 2

441 Driving Through Curves and Work Zones and Past Roadside Vegetation

Presiding: James Robertson

Poster Session

444 Innovative Pedestrian Transportation Research

Lectern Session | Practice Ready Papers

Closed-Course Study of Driver Detection of Pedestrians beyond Flashing Beacons within a Sign Assembly

Kay Fitzpatrick

James Robertson

Raul E. Avelar

447 New Research Enabling Decisions to Enhance Safety in Work Zones

Lectern Session | Practice Ready Papers

Analysis of Expected Crash Reduction Benefits and Costs of Truck-Mounted Attenuator Use in Work Zones

Gerald L. Ullman

Vichika Iragavarapu

Impact of Work Zone Lighting on Driver's Detection of Objects

Melisa Dayle Finley

Kayla D Weimert

Jeffrey David Miles

Photometric Evaluation of Steady-Burn Warning Lights in Work Zones

LuAnn Theiss

Jeffrey David Miles

Gerald L. Ullman

450 Past, Present, and Future of Access Management

Lectern Session | Spotlight Session

Panel Discussion

Vergil G. Stover

Karen K. Dixon

Jan 13-Mon

7:30PM- 9:30PM

Marriott - Salon 2

- 451 Performance Management on Managed Lane Facilities** *Lectern Session | Practice Ready Papers*
Role of Performance Management and Lessons Learned from Recent Implemented Projects
Katherine F. Turnbull
- 452 Recent Research Results from User Information Studies** *Poster Session*
Display of Website Addresses on Portable Changeable Message Signs
Gerald L. Ullman
- AHB5 Traffic Control Devices Committee** **Presiding: Paul J. Carlson** *Committee*
- Shoreham - Ambassador**
- 457 Advancements in Support Structure Technology and Research** *Lectern Session | Practice Ready Papers*
Natural Wind Response and Fatigue Assessment of a Cantilevered Traffic Signal Structure with Helical Arm Strakes
Kyle Wieghaus
Stefan Hurlebaus
John Mander
- 460 Modeling Theories and Practices in Freight Planning and Logistics, Part 1 (Part 2, Presiding: Bruce Wang** *Lectern Session*
Session 461)
- 461 Modeling Theories and Practices in Freight Planning and Logistics, Part 2: Presiding: Bruce Wang** *Lectern Session | Practice Ready Papers*
Energy Development, Predictive Analytics, and Rural Corridors (Part 1, Session
- 464 Roadside Safety Design: Bridge Rails and Concrete Barriers** *Lectern Session | Practice Ready Papers*
Design and Finite Element Analysis of Single Slope Median Wall for Grade Separation
Chiara Silvestri Dobrovlny
Dusty Arrington
Michael S. Brackin
Roger P. Bligh
- MASH-Compliant Sign Mounting Designs for Placement on Concrete Median Barrier**
Akram Abu-Odeh
Roger P. Bligh
Wanda L. Menges
- Pinned-Down Temporary Concrete Barrier with Transition Systems for Limited-Space Work Zone Applications*
Nauman M. Sheikh
Roger P. Bligh

Jan 14-Tue

8:00AM- 12:00 PM

Hilton - International West

511 Dwight David Eisenhower Transportation Fellowship Program Research Showcase

Lectern Session

Condition Assessment of Bridge Posttensioning Using Nondestructive Evaluation Metho

Joshua White

ABE20 Transportation Economics Committee

Presiding: Mark W. Burris

Committee

Marriott - Washington B5

AHB6 Operational Effects of Geometrics Committee

Presiding: Kay Fitzpatrick

Committee

8:00AM- 9:45AM

Hilton - Georgetown West

502 Congestion and Reliability Measurement and Management

Lectern Session | Practice Ready Papers

Developing a Total Peak-Period Travel Time Performance Measure: Updated Concept Paper

Philip Lasley

Timothy J. Lomax

William L. Eisele

David Lynn Schrank

B0002 Transportation Research Thesaurus Subcommittee

Presiding: Sandra L. Tucker

Subcommittee

Marriott - Salon 1

478 Application of Asphalt Mix Performance-Based Specifications

Lectern Session

Implementation of Performance-Based Specifications in Texas: Key Issues and Future Challenges

Tom Scullion

Shoreham - Ambassador

498 Roadside Safety Design: W-Beam Guardrail

Lectern Session | Practice Ready Papers

MASH-Compliant W-Beam Median Guardrail System

Akram Abu-Odeh

Roger P. Bligh

Wanda L. Menges

Jan 14-Tue

8:30AM- 10:15AM

Hilton - International Center

524 Bikesharing *Poster Session | Practice Ready Papers*

Impact of Bikesharing Infrastructure on Crashes and Policy Implications for San Francisco

Tongbin Teresa Qu

Michael Martin

Ming-Han Li

527 Emerging Information Technology Advances in Transportation, 2013 *Poster Session*

Assessment of Quality and Completeness of Archived ITS Sensor Data: TransGuide Case Study

Cesar Quiroga

Shoreham - Blue Room Foyer

520 Current Research in Freight Transportation and Logistics Planning and Operations, Part 1 (Part 2, Session 568) Presiding: Kai Yin *Poster Session | Practice Ready Papers*

Kai Yin

10:15AM- 12:00PM

Hilton - Jefferson East

561 What's It Worth? New Findings on How Transportation Investments Affect Property Values *Lectern Session | AICP Certification Maintenance Session*

From Car-Dependent Neighborhoods to Walkers' Paradise: Estimating Walkability Premiums in Condominium Housing Market

Wei Li

Kenneth Joh

Chanam Lee

Jun-Hyun Kim

Han Park

Ayoung Woo

Jan 14-Tue**10:15AM- 12:00PM****Marriott - Thurgood Marshall South****529 Aggregate Properties Affecting Pavement Response and Performance***Lectern Session**Estimation of Resilient Modulus of Unbound Aggregates Using Performance-Related Base Course Properties*

Fan Gu

Hakan Sahin

Xue Luo

Rong Luo

Robert Leonard Lytton

Prediction of Permanent Deformation Behavior of Unbound Aggregates Using Performance-Related Base Course Properties

Fan Gu

Hakan Sahin

Xue Luo

Rong Luo

Robert Leonard Lytton

537 Speed Monitoring, Traffic Calming, and GIS Applications for Law Enforcement Agencies, Researchers, and Engineers*Lectern Session | Practice Ready Papers**Effect of Traffic Calming Versus Active Enforcement Efforts in Work Zones*

Gerald L. Ullman

Marcus A. Brewer

10:45AM- 12:30PM**Hilton - International Center****573 Environmental Analysis in Transportation***Poster Session**Zero Effluent Constructed Wetland for Slag Leachate Remediation*

M. Katherine Banks

Jan 14-Tue

10:45AM- 12:30PM

Hilton - International Center

576 Transportation and Air Quality

Poster Session | Practice Ready Papers

Greenhouse Gas and Urban Congestion: Incorporating Carbon Dioxide Emissions and Associated Fuel Consumption into Texas A&M Transportation Institute's Urban Mobility Report

William L. Eisele

Tyler Fossett

David Lynn Schrank

Mohamadreza Farzaneh

Optimization Model for Ecodriving at Signalized Intersections

Zhi Chen

Yunlong Zhang

Jinpeng Lv

Marriott - Salon 2

564 Innovative Pedestrian Analysis Methods

Presiding: Shawn M. Turner

Poster Session | Practice Ready Papers

565 Innovative Traffic Signal Control Algorithms and Signal Designs (23)

Poster Session | Practice Ready Papers

Modeling Time to Clear Right-Turn-on-Red Traffic on Minor Street

Yanfen Zhou

Xiaosi Zeng

Yunlong Zhang

System Partition Method to Improve Arterial Signal Coordination

Tao Zhang

Yunlong Zhang

Shoreham - Blue Room Foyer

568 Current Research in Freight Transportation and Logistics Planning and Operations, Part 2 (Part 1, Session 520)

Presiding: Wen Wang

Poster Session | Practice Ready Papers

Using Sparse GPS Data to Estimate Link Travel Time for Truck Transport

Wen Wang

Kai Yin

1:30PM- 3:15PM

Jan 14-Tue

1:30PM- 3:15PM

Marriott - Maryland A

582 Innovations in Geometric Design Using Operational and Reliability-Based Analysis Methods

Lectern Session | Practice Ready Papers

Double Left-Turn Lane Operational Field Study

Kay Fitzpatrick

Eun Sug Park

James Robertson

Marcus A. Brewer

588 Signing and Pavement Marking Materials

Lectern Session | Practice Ready Papers

Recommended Laboratory Test for Predicting Initial Retroreflectivity of Pavement Markings from Glass Bead Quality

Adam M. Pike

Paul J. Carlson

Use of High-Intensity Reflective Sheeting in Lieu of External Lighting of Overhead Roadway Signs in Florida

Paul J. Carlson

Marriott, - Thurgood Marshall West

584 Nighttime Analysis of Road Safety and Operations

Lectern Session

Characterizing the Combined Association of Edge Line and Center Line Retroreflectivity to Nighttime Crashes on Michigan Two-Lane Rural Highways

Raul E. Avelar

Paul J. Carlson

1:30PM- 5:30PM

Hilton - Columbia Hall 3

ABJ45 Task Force on Understanding New Directions for the National Household Travel Survey Task Force Presiding: Stacey Bricka

Task Force

2:00PM- 3:45PM

Hilton - International Center

641 TRB's Transit IDEA Program: Sponsoring Innovation in Transit

Poster Session

Innovative Operating Strategy for Paratransit Services

Luca Quadrifoglio

Jan 14-Tue

2:00PM- 3:45PM

Marriott - Salon 2

615 Evaluation of Moisture Susceptibility of Asphalt Mixtures

Poster Session

Warm-Mix Asphalt Moisture Susceptibility Evaluation and Minimization Strategies: Case Study

Lorena Garcia Cucalon

Fan Yin

Amy Epps Martin

Edith Arambula

Cindy K. Estakhri

Eun Sug Park

623 Testing and Modeling of Asphalt Concrete Mixtures, Part 1 (Part 2, Session 684)

Poster Session

Development and Validation of a Generalized Viscoplastic Yield Surface Model for Asphalt Concrete

Yuqing Zhang

Rong Luo

Robert Leonard Lytton

Experimental Characterization of Mode-Dependent Fracture Behavior of Asphalt Mixtures Using Semicircular Bend Test

Soohyok Im

Measurement of Internal Stress During Recovery of Asphalt Mixtures

Xue Luo

Rong Luo

Robert Leonard Lytton

Modeling the Response of Asphalt Concrete with Pavement Analysis Using Nonlinear Damage Approach Model

Masoud K. Darabi

Dallas N. Little

Rashid K. Abu Al-Rub

Eyad A. Masad

Systematic Approach for Calibration and Validation of Comprehensive Constitutive Model for Asphalt Mixtures

Taesun You

Eyad A. Masad

Rashid K. Abu Al-Rub

Emad Kassem

Dallas N. Little

Use of Fine Aggregate Matrix Mixtures to Evaluate Deformation Characteristics of Asphalt Concrete Mixtures

Soohyok Im

Jan 14-Tue

2:00PM- 3:45PM

Shoreham - Blue Room Foyer

627 Current Research on Container Terminal Operations

Poster Session

Local Sequence-Cut Method for Automated Guided Vehicle Dispatching Problem at Automated Container Terminals with Tandem Lift Quay Cranes

Yao Xing

Kai Yin

Luca Quadrifoglio

Xiubin Bruce Wang

3:45PM- 5:30PM

Hilton - Columbia Hall 4

665 National Parks and Technology: Enhancing Visitors' Experiences and Operations

Lectern Session | AICP Certification Maintenance Session

Innovative Technologies for Monitoring Road and Trail Use in Federal Lands

Dan Middleton

Shawn M. Turner

669 Safety Issues in Indian Country

Lectern Session | AICP Certification Maintenance Session

Review of Transportation Safety in Tribal Communities

Vichika Iragavarapu

674 Women in Transportation: Support for Research, Professional Development, and Training

Presiding: Katherine F. Turnbull

Lectern Session | AICP Certification Maintenance Session

Marriott - Thurgood Marshall West

644 Designing for High-Speed Operations

Lectern Session | Practice Ready Papers

Operational Effects of Design of Access Points on Katy Freeway Managed Lanes

Marcus A. Brewer

4:15PM- 6:00PM

Marriott - Salon 2

679 Design and Construction Issues for Asphalt Surface Mixtures

Poster Session | Practice Ready Papers

Proposed Test Method to Identify Problematic Field Sands in Asphalt Mixtures

Edith Arambula

Cindy K. Estakhri

Anol K. Mukhopadhyay

Jan 14-Tue

4:15PM- 6:00PM

Marriott - Salon 2

682 Reclaimed Asphalt Pavement and Recycled Asphalt Shingle Processes: Blending, Rejuvenation, Rheology, and Durability
Characteristics of Virgin and RAS Binder Blends: Rheological and Chemical Properties
Fujie Zhou
Peiru Chen

Poster Session

683 Recycling, Reclaiming, and Modifying Asphalt Mixtures
Impacts of Rejuvenators on Performance and Engineering Properties of Asphalt Mixtures Containing Recycled Materials
Soohyok Im
Fujie Zhou
Tom Scullion

Poster Session | Practice Ready Papers

684 Testing and Modeling of Asphalt Concrete Mixtures, Part 2 (Part 1, Session 623)
Analytical Approach to Predict Rheological Properties of Asphalt Binders Using Mixture Properties
Pooyan Kabir
Maryam Sakhaeifar
David E. Newcomb

Poster Session

Laboratory Hot-Mix Asphalt Performance Testing: Asphalt Mixture Performance Tester Versus Universal Testing Machine

Lubinda F. Walubita
Jun Zhang
Abu Nayeem Md. Faruk
Tom Scullion

Shoreham - Blue Room Foyer

686 Geometric Design Research
Environmentally Conscious Highway Design for Horizontal Curves
Myunghoon Ko
Impact of Vehicle Types on Ball-Bank Indicator Reading and Curve Advisory Speed Determination
Yanfen Zhou
H. Gene Hawkins

Poster Session

5:45PM- 8:00PM

Marriott - Congressional

7:30PM- 9:30PM

Marriott - Salon 3

693 Advancing the State of Practice for Bridge Design, Construction and Preservation
Mapping Defects in and Behind Tunnel Linings
Andrew James Wimsatt

Lectern Session

701 Impact of Access Management Research (5)
Assessing How Drivers of Through Vehicles React to Driveway Activity
Karen K. Dixon
Lacy S. Brown

Poster Session

706 Prediction, Estimation, and Real-Time Traffic Signal Systems (18)
Deploying Weather-Responsive Traffic Signal Operations in Utah
Kevin N. Balke

Poster Session | Practice Ready Papers

714 Improving Freight Transportation Efficiency in Metropolitan and Urban Settings Presiding: William L. Eisele

Lectern Session | AICP Certification Maintenance Session

AHB5 Positive Protection in Work Zones Joint Subcommittee of AHB55, AFB20, AFH10 Presiding: Melisa Dayle Finley

Subcommittee

Shoreham - Capitol

AT015 Freight Modeling Subcommittee Presiding: Xiubin Bruce Wang

Subcommittee

7:30PM- 10:00PM

Marriott - Washington B5

ANF10 Pedestrians Committee

Presiding: Shawn M. Turner

Committee

Session Session Title

Jan 15-Wed

6:30AM- 9:00AM

Marriott - Congressional

AH000 Operations and Preservation Group Executive Board *Members Only

Presiding: Paul J. Carlson

Executive Board

8:00AM- 12:00PM

Marriott - Coolidge

AFB70 Utilities Committee

Committee

10:30 Discussion: FHWA SHRP2 Implementation Planning

Cesar Quiroga

10:30 Discussion: Research Update - Electronic Permitting & Conflict Analysis

Cesar Quiroga

9:00 Paper Presented in Poster Session: Strategies To Optimize Right-Of-Way Parcel And Utility Information Management

Edgar Kraus

Cesar Quiroga

Jerry Le

8:00AM- 9:45AM

Hilton - Columbia Hall 7

751 Challenges and Opportunities of Partnerships Between Public Health and Transportation in Small and Medium-Sized Communities

Presiding: Ipek Nese Sener

Lectern Session | AICP Certification Maintenance Session

Marriott - Thurgood Marshall South

734 Low-Volume Road and Bridge Impacts from Energy Development, Deterioration, and Environment

Presiding: Jolanda P. Prozzi

Lectern Session | Practice Ready Papers

736 Modeling of Asphalt Concrete Mixtures

Lectern Session

A Multiscale Model for Asphalt Mixtures Subjected to Cracking and Viscoelastic Deformation

Dallas N. Little

Multiscale Computational Mechanics Model for Predicting Rutting in Asphaltic Pavement Subjected to Cyclic Mechanical Loading

Dallas N. Little

741 Traffic Signal Control and Optimization for Multimodal Intersections

Lectern Session

Model for Transit Signal Priority Considering Stochastic Bus Arrival Time

Xiaosi Zeng

Praprut Songchitruksa

Kevin N. Balke

Yunlong Zhang

AHB2 Active Traffic Management Joint Subcommittee of AHB20, AHB35

Presiding: Beverly T. Kuhn

Subcommittee

Jan 15-Wed

8:00AM- 9:45AM

Shoreham - Congressional

746 Monitoring and Evaluating the Performance of Ports and Intermodal Transportation Networks

Lectern Session | AICP Certification Maintenance Session
| Practice Ready Papers

Modeling Maintenance Project Selection on a Multimodal Transportation Network

Mohammadadel Khodakarami

Bruce Wang

8:30AM- 10:15AM

Hilton - International Center

767 Safety Data and Methods Madness

Poster Session

Estimating the Safety Impacts in Before-After Studies Using the Adjusted Method

Dominique Lord

775 Route Choice Modeling and Dynamics

Poster Session

Communicating Information About Alternate Routes to Wisconsin Drivers

Laura Higgins

Alicia A. Nelson

Tina Geiselbrecht

Prospect Theory Approach to Estimating the Use of Managed Lanes

Chao Huang

Mark W. Burris

William Douglass Shaw

Marriott - Salon 2

763 Effects of Pedestrians, Bicycles, and Transit on Operations, Safety, and Geometrics of Alternative Intersection Design

Poster Session

Planning for Bus Rapid Transit Through Busy Diamond Interchange: Assessment of Challenges and Potential Solutions

Roma Garg Stevens

Anthony Voigt

Robert Joseph Benz

Timothy J. Lomax

10:15AM- 12:00PM

Marriott - Delaware A

778 Concrete Joint Deterioration

Lectern Session

Investigation and Performance Implications of Joint Seal Infiltration in Jointed Concrete

Dan G. Zollinger

Session Session Title

Jan 15-Wed

10:15AM- 12:00PM

Shoreham - Executive

791 Advances in Freight Data Collection and Application

Poster Session

Exploring Data-Sharing Partnerships to Collect Primary Freight Data

Jolanda P. Prozzi

2:30PM- 4:00PM

Hilton - Columbia Hall 7

834 Intercity Buses from the Heartland to the Big City

Lectern Session | AICP Certification Maintenance Session
| Practice Ready

Examining the Characteristics of Intercity Bus Passengers in Michigan

Jeffery E. Warner

Marriott - Delaware A

811 Analytical Models for Safe and Sustainable Transport

Lectern Session

Comparison of Sichel and Negative Binomial Models in Hot Spot Identification

Lingtao Wu

Dominique Lord

815 Field Testing and Nondestructive Evaluation for Bridges and Tunnels

Lectern Session | Practice Ready Papers

Structural Impairment Detection of Tunnel Linings Using Ultrasonic Tomography: Validation Study and Field Evaluation

Joshua White

Stefan Hurlebaus

Andrew James Wimsatt

2:45PM- 4:30PM

Hilton - International Center

842 Advances in Network Modeling

Poster Session | Practice Ready Papers

Scheduling Use of Train Units for a High-Speed Train Network with Column Generation (14-5308)

Qing Miao

Bruce Wang

4:30PM- 6:00PM

Marriott - Thurgood Marshall East

847 Surface Effects on Pavement Performance

Lectern Session | Practice Ready Papers

Safety Impact of Pavement Conditions

Yingfeng Li

Session Session Title

Jan 15-Wed

7:30PM- 9:30PM

Marriott - Coolidge

ANB2 Crash Modification Factors Subcommittee, ANB25(6)

Karen K. Dixon

Presiding: Karen K. Dixon

Subcommittee

Jan 16-Thur

8:00AM- 12:00PM

Marriott - Thurgood Marshall East

866 Ahead of the Curve: Advancing the Management of Research and Innovation in Transportation--Engaging the Research and Innovation Community in the Development of the Initiative

Ahead of the Curve: Brief Background and Vision

Katherine F. Turnbull

Workshop

872 SHRP 2 Asphalt- and Pavement-Related Products

PAVE IR Bar for Measurement of Segregation of Hot-Mix Asphalt and Ground-Penetrating Radar for Density After Rolling

Tom Scullion

Workshop

8:00AM- 9:45AM

Hilton - Jefferson West

863 Network Models in Public Transport Systems

Scheduling Use of Train Units for High-Speed Train Network with Column Generation

Qing Miao

Bruce Wang

Lectern Session | Practice Ready Papers