

WEDNESDAY, APRIL 20

MORNING

- 0730 Refreshments
- 0830 Welcome & Introductions from International Conference on Urban Traffic Safety Committee & Guests
- 0845 Keynote: What Gives Research Its Value?  
Ezra Hauer, Ph.D., P.Eng., University of Toronto, Ontario, Canada
- 1000 Break
- 1030 Concurrent Sessions
- 1E Implementation of New Determining Fitness to Drive Guidelines: Shared Expertise and Best Practice  
Mitch Fuhr, Co-Chair, Driver Fitness Overview Group, Canadian Council of Motor Transport Administrators (CCMTA), Edmonton, Alberta and David Dunne, British Columbia Automobile Association Traffic Safety Foundation, Vancouver, BC, Canada  
*Meeting Room: Rowand*
- 2E Reducing Collisions By Reducing Violations: An Automated Enforcement Case Study  
Captain Glenn Hansen, Automated Enforcement Division, Howard County Police, MD, USA  
*Meeting Room: Winterlake*
- 3E Sustainable Road Safety Partnership: 20 Years in the Making  
John Pump, Manager, Road Improvement Program, ICBC, Vancouver, BC, Canada  
*Meeting Room: Vintage*
- 4E Challenges for Best Practice in Drink Driving Management  
Mary Sheehan, Ph.D., Queensland University of Technology, Brisbane, Australia  
*Meeting Room: Northcote*

AFTERNOON

- 1145 Lunch
- 1300 Concurrent Sessions—Innovative Programs: Sharing Expertise & Best Practices Presentations
- 1F Engineering  
*Meeting Room: Vintage*  
Analyzing the Effectiveness of Dynamic Speed Display Signs (DSDS) at Transition Zones  
Along 97 Street Corridor Investigate and Model High Collision Rates to Develop Effective Improvements  
Tony Qiu, Dr. Assistant Professor, University of Alberta, Transportation Engineering, Department of Civil and Environmental Engineering, Edmonton, Alberta, Canada
- 2F Law Enforcement  
*Meeting Room: Winterlake*  
Partnership in Advancing Traffic Safety on Medically At-Risk Drivers  
Bonnie Dobbs, Ph.D., Director, Medically At-Risk Driver Centre and Professor, Department of Family Medicine, University of Alberta, Edmonton, Alberta, Canada  
  
Data-Driven Approaches to Crime and Traffic Safety (DDACTS)  
Earl Hardy, Highway Safety Specialist, National Highway Traffic Safety Administration (NHTSA), Washington, DC, USA
- 3F Marketing & Media  
*Meeting Room: Rowand*  
MOST of Us@ in Edmonton Support Automated Enforcement: Applying the Positive Community Norms Model to Traffic Safety  
Jeffrey Linkenbach, Ed.D. , Center for the Study of Health and Safety Culture Montana State University and Jay Otto, M.S. Center for the Study of Health and Safety Culture Montana State University, Montana, USA
- 4F Engineering  
*Meeting Room: Northcote*  
The Interactive Highway Safety Design Model (IHSDM): Software to Support Performance-Based Road Design  
Richard Porter, Ph.D., P.E. University of Utah's Civil and Environmental Engineering Department, Salt Lake City, UT, USA  
  
Before/After Analysis for the Treatment at Yellowhead / Victoria Trail Ramp  
Tarek Sayed, Ph.D. Professor and, Distinguished University Scholar, Civil Engineering, University of British Columbia, Vancouver, BC, Canada
- 1415 Break
- 1445 Closing Keynote: Moving Forward: Changing Perceptions in Changing Times  
Terry O'Reilly, Writer/Director CBC Radio Host Pirate Radio, Toronto, Ontario, Canada
- 1600 Closing Ceremony

## EXHIBITS



# 3<sup>RD</sup> ANNUAL EDMONTON'S INTERNATIONAL CONFERENCE ON URBAN TRAFFIC SAFETY

MOVING FORWARD  
CREATIVE APPROACHES TO  
IMPROVING URBAN TRAFFIC  
SAFETY IN OUR COMMUNITIES

APRIL 17-21, 2011 | EDMONTON,  
ALBERTA, CANADA

# PROGRAM

[WWW.TRAFFICSAFETYCONFERENCE.COM](http://WWW.TRAFFICSAFETYCONFERENCE.COM)





## WORKSHOPS

All presentations are held on the 2<sup>nd</sup> Floor —Main Ballroom, unless indicated otherwise.

## PARTNERS



### PRE-CONFERENCE WORKSHOPS | SUNDAY, APRIL 17

1300—1615

#### 1A—Unlicensed Drivers: Are They High Risk?

- Barry Watson, Ph.D. Queensland University of Technology, Brisbane, Australia

*Meeting Room: Winterlake*

#### 2A—Road User Speed Behaviour, Safety and Roadway Features

- Stan Teply, Ph.D., University of Alberta, Edmonton, AB, Canada

*Meeting Room: Rowand*

#### 3A—Road Safety Audit Improving Performance

- Sarah Rocchi, Opus International Consultants Ltd., Vancouver, BC, Canada

*Meeting Room: Northcote*

### POST-CONFERENCE WORKSHOPS | THURSDAY, APRIL 21

0800-1145

#### 1B—Road Safety & Engineering: From Research to Practice

- Ezra Hauer, Ph.D., University of Toronto, Ontario, Canada

*Meeting Room: Winterlake*

#### 2B—Innovative Enforcement Techniques

- Lowell Porter, Director and Governor's Representative, Washington Traffic Safety Commission and GHSA Vice Chairman, Olympia, WA

*Meeting Room: Rowand*

#### 3B—The Law Enforcement Community and the Medically Impaired Driver: An Interactive Workshop

- Ross Danyluk, Ph.D. Director of Community Mobilization, Alberta Transportation, Olga Tavares, Director, Driver Fitness and Monitoring, Alberta Transportation, Bruce Adams, Regional Traffic Safety Coordinator Region 6, Len Wagner, Regional Traffic Safety Coordinator Region x, and Bonnie Dobbs, Ph.D., Director, The Medically At-Risk Driver Centre, University of Alberta

*Meeting Room: Northcote*

## COMMUNITY FORUM

TUESDAY, APRIL 19

1800—2130

1800 Registration & Community Traffic Safety Showcase

1830 Welcome & Introductions

Presentations:

- ALCOHOL IMPAIRED—Ralph Hingson, Sc.D., M.P.H., Director, Division of Epidemiology and Prevention Research, National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA,
- MEDICALLY IMPAIRED—Bonnie Dobbs, Ph.D. Director, The Medically At-Risk Driver Centre, University of Alberta
- SPEED MANAGEMENT—Oliver Carsten, Ph.D., Institute for Transport Studies, University of Leeds, UK
- SPEED REDUCTION PILOT—Karim El-Basyouny, Ph.D., Traffic Safety Analyst, Office of Traffic Safety, City of Edmonton

2130 Closing Remarks & Community Traffic Safety Showcase & Refreshments

## CONFERENCE PROGRAM

All presentations are held on the 2<sup>nd</sup> Floor —Main Ballroom, unless indicated otherwise.

### MONDAY, APRIL 18

#### MORNING

0700 Registration | Refreshments

0800 Opening Ceremony

Welcome & Introductions from International Conference on Urban Traffic Safety Committee & Guests

0830 Keynote: Innovative Enforcement in the 21st Century

Lowell Porter, Director and Governor's Representative, Washington Traffic Safety Commission and GHSA Vice Chairman, Olympia, WA, USA

1015 Break

1030 Concurrent Sessions

1A Safety of Vulnerable Road Users

Ron Van Houten, Ph.D., Vice President & Research Director, Center for Education and Research in Safety, Kalamazoo, MI, USA

*Meeting Room: Rowand*

2A Traffic Safety Analysis and Safety Performance

Bhagwant Persaud, Ph.D. Ryerson University, Toronto, Ontario, Canada

*Meeting Room: Vintage*

3A Driver Fatigue: Technological Countermeasures

Rich Hanowski, Ph.D. Director, Center for Truck & Bus Safety, Virginia Tech Transport Institute, Blacksburg, VA, USA

*Meeting Room: Northcote*

4A Strategies to Reduce Driving Under the Influence Alcohol

Ralph Hingson, Sc.D., M.P.H., Director, Division of Epidemiology and Prevention Research, National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA

*Meeting Room: Winterlake*

#### AFTERNOON

1145 Lunch

1300 Concurrent Sessions

1B Target Zero: A Strategy that Works

Lowell Porter, Director and Governor's Representative, Washington Traffic Safety Commission and GHSA Vice Chairman, Olympia, WA, USA

*Meeting Room: Winterlake*

2B Intelligent Transport Systems: Speed Management Through Vehicle Measures

Oliver Carsten, Ph.D., Institute for Transport Studies, University of Leeds, UK

*Meeting Room: Northcote*

3B Left Turn Safety Index Based on Driver Risk-taking Behavior

David Noyce, Ph.D., Associate Professor, University of Wisconsin Madison, USA

*Meeting Room: Vintage*

4B Medically At-Risk and Medically Impaired Drivers: A Canadian Perspective

Paul Boase, Chief, Road Users, Road Safety & Motor Vehicle Regulation, Transport Canada, Ottawa, ON, Canada

*Meeting Room: Rowand*

1415 Break

1445 Keynote: Translating Research into Practice from a Road Safety Perspective

Shalom Hakkert, Professor (retired), Faculty of Civil and Environmental Engineering, Technion - Israel Institute of Technology, Haifa, Israel

1600 Closing Remarks

### TUESDAY, APRIL 19

#### MORNING

0730 Refreshments

0830 Welcome & Introductions from International Conference on Urban Traffic Safety Committee & Guests

0845 Keynote: Medically At Risk Drivers: An Integrated Approach  
Bonnie Dobbs, Ph.D., Director, Medically At-Risk Driver Centre and Professor, Department of Family Medicine, University of Alberta, Edmonton, Alberta, Canada

1000 Break

1030 Concurrent Sessions

1C Driver Fitness Assessment Strategies  
Mitch Fuhr, Executive Director, Driver Programs Branch, Transportation Safety Services Division, Alberta Transportation, and Co-Chair, Driver Fitness Overview Group, Canadian Council of Motor Transport Administrators (CCMTA), Edmonton, Alberta Canada

*Meeting Room: Northcote*

2C Effectiveness of Traffic Enforcement on Reducing Impaired Driving

James C. Fell, MS, Human Factors Engineering, Senior Program Director, Alcohol, Policy, and Safety Research Center, Calverton, Maryland, USA

*Meeting Room: Winterlake*

3C Evaluation of Traffic Safety in Sprawl and Urban Growth  
John M. Bigham, MPH, Safe Transportation Research & Education Center, University of California Berkeley, CA, USA

*Meeting Room: Rowand*

4C Road Design, Speed, and Safety on Urban and Suburban Roads: Why do We Get What We Get and How Can We Get What We Want?

Richard Porter, Ph.D., P.E. University of Utah's Civil and Environmental Engineering Department, Salt Lake City, UT, USA

*Meeting Room: Vintage*

#### AFTERNOON

1145 Lunch

1300 Concurrent Sessions

1D An Assessment: Hot Corridors, Deterrence, and Guardianship  
John P. Crank, Ph.D., Professor, Department of Criminal Justice, University of Nebraska, Omaha, USA

*Meeting Room: Rowand*

2D CPTED, Collision Prevention through Environmental Design  
Bill Grodzinski, Chief Superintendent, Commander – Highway Safety Division, Ontario Provincial Police, Canada

*Meeting Room: Northcote*

3D Posted Speed Reduction on Residential Roads Pilot Project  
Karim El-Basyouny, Ph.D., Traffic Safety Analyst, City of Edmonton's Office of Traffic Safety, Edmonton, Alberta, Canada

*Meeting Room: Vintage*

4D Traffic Safety Isn't Only the Vehicle  
Chuck Gulash, Sr. Executive Engineer, Toyota Motor Corporation. Director of Toyota's Collaborative Safety Research Center, Toyota Research Institute of North America, USA

*Meeting Room: Winterlake*

1415 Break

1445 Keynote: Successes and Challenges in Managing Illegal Road User Behaviour

Barry Watson, Ph.D. Queensland University of Technology, Brisbane, Australia

1600 Closing Remarks



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RD ANNUAL

# MOVING FORWARD

CREATIVE APPROACHES TO IMPROVING URBAN TRAFFIC SAFETY IN OUR COMMUNITIES



EDMONTON'S INTERNATIONAL CONFERENCE ON URBAN TRAFFIC SAFETY

APRIL 17-21, 2011 | EDMONTON, ALBERTA, CANADA



On behalf of City Council and the people of Edmonton, Alberta's Capital City, it's my pleasure to extend a warm welcome to all the delegates attending the 3rd Annual Traffic Safety Conference.

This year's theme "Moving forward: creative approaches to improving Urban Traffic Safety in our communities" is sure to inspire novel ideas and innovative approaches to address the 21st century

needs and challenges of urban traffic safety in our communities.

Like many cities, Edmonton is faced with increased traffic and corresponding challenges in law enforcement and public education. Conferences like this provide an exceptional learning opportunity and chance for representatives from around the world to work together and effect change. Together we can put forward new initiatives to make our streets safer for everyone.

For those visiting Edmonton, I hope you have the opportunity to see some of our cities many highlights. From a stroll through the magnificent North Saskatchewan River Valley to world-class shopping and fine dining, there's a lot for you to see and do in Alberta's Capital City.

Best wishes for a successful conference and a pleasant stay in Edmonton!

Yours truly, Stephen Mandel Mayor



On behalf of the Edmonton Police Commission, welcome to Edmonton's 3rd International Conference on Urban Traffic Safety.

This year's theme, *Moving Forward: Creative approaches to improving urban traffic safety in our communities*, captures our collective vision of finding new, innovative ways to improve traffic safety.

Traditionally, there has been a strong emphasis on using enforcement to modify driver behaviour. In order to make long-term, sustainable improvements to traffic safety we must engage the whole community. The Edmonton Police Commission strongly supports the use of evidence-based research, engineering improvements, and finding innovative ways to educate the public, in addition to enforcement.

We are proud to announce that within the City of Edmonton we experienced a 14 per cent reduction in fatal collisions and an 18 per cent reduction in injury collisions in 2010. This was accomplished through the collaborative efforts of our partners in traffic safety – all of which are represented at this conference. The International Conference on Urban Traffic Safety offers attendees an opportunity to engage in meaningful discussions with experts from around the world and explore creative solutions to traffic safety.

Arlene Yakeley, Chair, Edmonton Police Commission



Like most municipalities, Edmonton continues to explore a multitude of options for improving traffic safety. No program can be entirely successful, however, if it doesn't have the support and engagement of members of the community. As we move forward and look for new and creative ways to manage the many issues surrounding traffic safety, The City of Edmonton's Transportation Department will continue to look to gatherings like the International Conference on Urban Traffic Safety to facilitate discussions, generate ideas and draw members of the community together to explore options for ultimately improving life for our citizens.

Bob Boutilier, General Manager, Transportation, City of Edmonton

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# 3

RD ANNUAL

Edmonton's 3rd Annual International Conference on URBAN TRAFFIC SAFETY is designed and guided by the expertise of the steering committee from the City of Edmonton, Office of Traffic Safety (OTS), Capital Region Intersection Safety Partnership (CRISP), the Edmonton Police Commission (EPC), the Edmonton Police Service (EPS) and Medically-At-Risk Centre, University of Alberta (MARD).



## EDMONTON'S INTERNATIONAL CONFERENCE ON URBAN TRAFFIC SAFETY

APRIL 17-21, 2011  
EDMONTON, ALBERTA  
CANADA



Welcome to the 3rd Annual Urban Traffic Safety Conference. On behalf of the Capital Region Intersection Safety Partnership (CRISP) I wish you all a great conference.

The theme of the conference – Moving Forward: Creative Approaches to Improving Urban Traffic Safety in our Communities – embodies the spirit of the CRISP partnership. We know that there are many factors that contribute to the

high number of vehicle collisions. CRISP initiatives involve integration of best practices in the areas of education, engineering and enforcement strategies followed by extensive evaluation of results. By working together and combining resources, we hope to put forward new initiatives to make our roads safer for all road users in our communities.

Thank you to the conference organizers for bringing together this outstanding group of experts to present and discuss innovative approaches to traffic safety. With over 250 delegates attending, this is a great opportunity for you to network and collaborate with traffic safety stakeholders from around the world.

Welcome to Edmonton. Enjoy your visit.

Dawn Green, Chair, Capital Region Intersection Safety Partnership (CRISP)



Medically impaired drivers represent an important, but often overlooked segment of the driving population contributing to injury and fatality rates in jurisdictions worldwide. With the aging of the baby boomers, and with people driving longer in their lifetime, the risk of medically at-risk drivers on our roadways increases. In addition, many of the chronic diseases traditionally associated with age are becoming health risks in younger populations. As the number of medically impaired drivers

increases and illnesses impact drivers at increasingly younger ages, proactive planning for the safety and support for these drivers and their families will become increasingly critical. The University of Alberta's Medically At-Risk Driver Centre (MARD Centre) is pleased to partner with members of the traffic safety community, health care professionals, and other stakeholders in seeking solutions to the growing problem of medically impaired drivers on our roadways. This conference provides an opportunity to share the latest research findings and collaborate in new and exciting ways in an effort to increase traffic safety internationally. Together, we can move forward and find creative approaches to improving urban traffic safety in our communities. The MARD Centre is proud to be a partner of Edmonton's 3rd Annual International Conference on Urban Traffic Safety. Enjoy the conference.

Dr. Bonnie Dobbs, Director, Medically At-Risk Driver Centre, Professor, Department of Family Medicine, University of Alberta

### CONFERENCE COMMITTEE

- Gerry Shimko, Executive Director, Office of Traffic Safety
- Joe Rodgers, Executive Director, Edmonton Police Commission
- Neil Dubord, Superintendent, Edmonton Police Service, West Division
- Bonnie Dobbs, Director, The Medically At-Risk Driver Centre, University of Alberta
- Dean Schick, Transportation Coordinator, Engineering Services, City of St. Albert & Capital Region Intersection Safety Partnership
- Doug Tupper, Edmonton Police Commission
- Sarah Doyle, Commission Representative, Edmonton Police Commission
- Scott McDonald, Conference Co-Chair Senior Speed Management Coordinator, Office of Traffic Safety
- Karim El-Basyouny, Conference Co-Chair, Traffic Safety Analyst, Office of Traffic Safety
- Laura Thue, Senior Research Coordinator, Office of Traffic Safety
- Chris Neuman, Traffic Safety Analyst, Office of Traffic Safety
- Stevanus Tjandra, Senior Traffic Safety Analytical Coordinator, Office of Traffic Safety
- Laura McNabb, Acting Senior Communications Advisor, Transportation and Capital Construction, City of Edmonton
- Donna Hladun, Communications Officer, Capital Region Intersection Safety Partnership