Note: In light of TAC’s 100th anniversary, simultaneous interpretation in both official languages will be provided at all technical sessions. Receivers may be obtained in the conference registration area and Level 5 of the Palais des congrès.

~ MONDAY, SEPTEMBER 29 – 08:45-11:00 ~

OPENING PLENARY SESSION: TRANSPORTATION 2014 – PAST, PRESENT, FUTURE
Hall 517, Level 5, PDC

Partner: MMM Group Limited

08:45 WELCOME TO QUEBEC
Hon. Robert Poëti, Quebec Minister of Transport and responsible for the Montreal Region, and 2014 TAC Conference Chair

08:55 WELCOME TO MONTREAL
Aref Salem, Ville de Montréal

09:00 IMPORTANCE OF TRANSPORTATION – PAST, PRESENT, FUTURE
Government of Canada representative (to be confirmed)

09:25 IMPORTANCE OF TRANSPORTATION – PAST, PRESENT, FUTURE
Hon. Robert Poëti, Quebec Minister of Transport

09:45 CELEBRATING TAC’S CENTENNIAL
Rob Penny, Deputy Minister, Alberta Transportation and TAC President

10:05 IMPORTANCE OF TRANSPORTATION – PAST, PRESENT, FUTURE
International speaker (to be confirmed)

~ MONDAY, SEPTEMBER 29 – 13:45-17:15 ~

A CENTURY OF URBAN TRANSPORTATION PLANNING (PD)
Room 516D, 5th Floor, PDC
Organized by TAC’s Transportation Planning and Research Standing Committee

Chair: Rajan Philips, Manager, Waterloo Regional Operations, Parsons

Panelists
- MAJOR URBAN TRANSPORTATION TRANSITIONS OVER THE LAST ONE HUNDRED YEARS: LESSONS FOR THE FUTURE
  Pierre Filion, Professor, School of Planning, University of Waterloo
• THE EVOLUTION OF URBAN TRANSPORTATION PLANNING PRACTICES: 1914 – 2014  
Neal Irwin, Chairman Emeritus, IBI Group

• MOBILITY NEEDS AND MODAL SHIFTS INVOLVING PEOPLE, GOODS AND SERVICES  
Garreth Remple, Principal, MORR Transportation Consulting Ltd.

• THE CHALLENGES OF SUSTAINABILITY  
Ahmed M. El-Geneidy, to be confirmed, School of Urban Planning, McGill University

Discussion and Question-and-Answer Period  
Panel includes a 30 minute coffee break at 15:15

AUTONOMOUS AND CONNECTED VEHICLES: A HEADS-UP FOR TRANSPORTATION ENGINEERS (PD)  
Room 515AB, 5th Floor, PDC  
Organized by TAC’s Geometric Design Standing Committee

Chair: Milton Carrasco, President and Chief Executive Officer, Transoft Solutions, Inc.

Panelists

• FLORIDA’S PROGRAM FOR AUTOMATED VEHICLE HIGHWAYS (AVHS) AND SIMULATION TESTING FOR AVH SYSTEMS  
Scott S. Washburn, Associate Professor, University of Florida Transportation Institute (UFTI)

• TO BE CONFIRMED  
Alain Kornhauser, Professor of Operations Research & Financial Engineering, Director, Transportation Program  
Faculty Advisor, PAVE (Princeton Autonomous Vehicle Engineering), Departmental Representative (Director of Undergraduate Studies), Department of Operations Research & Financial Engineering, Princeton University

• VEHICLE TO INFRASTRUCTURE AND LOW HANGING FRUITS  
Tim Lange, Traffic and Mobility Project Manager, BMW Group

• ADVANCED TECHNOLOGIES FOR REACHING TOWARDS ZERO FATALITIES  
Anders Eugensson, Vice President, Government Affairs, Volvo Car Corporation

• AVS IN CITIES: OPPORTUNITY OR THREAT?  
Antoine Belaieff, Director, Innovation, Metrolinx

• DRIVERLESS ELECTRIC SHARED VEHICLES: MOBILITY OF THE FUTURE  
Catherine Kargas, Vice President, MARCON and Chair, Electric Mobility Canada

Discussion and Question-and-Answer Period  
Panel includes a 30 minute coffee break at 15:15

BEST PRACTICES IN URBAN TRANSPORTATION PLANNING (A) (SES)  
Room 518A, 5th Floor, PDC  
Organized by TAC’s Transportation Planning & Research Standing Committee

Chair: David Duncan, Senior Transportation Planning Engineer, Transportation Systems Planning & Development, Manitoba Infrastructure and Transportation

13:45 ONTARIO MINISTRY OF TRANSPORTATION - HIGHWAY ACCESS MANAGEMENT GUIDELINE  
Ken Teasdale, Senior Project Manager, Ministry of Transportation, Ontario

14:15 INNOVER DANS LA COLLECTE DE DONNÉES PLUS À JOUR ET DE MEILLEURE QUALITÉ SUR LES TRANSPORTS (INNOVATION IN THE COLLECTION OF MORE CURRENT AND BETTER QUALITY TRANSPORTATION DATA)  
*presented in French  
Assumpta Cerdá, Principal Analyst, Mobility and Demography, Agence métropolitaine de transport

14:45 LA PIEUVRE ET LE CERCLE, BASE D’UN CADRE D’ÉVALUATION DE LA MOBILITÉ DURABLE (THE OCTOPUS AND THE CIRCLE, BASIS OF AN EVALUATION FRAMEWORK OF SUSTAINABLE MOBILITY)  
*presented in French  
Louiseille Sioui, PhD Candidate, Polytechnique Montréal; Catherine Morency

15:15 30 Minute Break
LEVERAGING SYSTEM INTELLIGENCE FROM MASSIVE SMART CARD DATABASE TO SUPPORT OPERATIONAL AND STRATEGIC OBJECTIVES OF A TRANSIT AGENCY

Ka Kee Alfred Chu, Specialist, Modeling and Analysis, Agence métropolitaine de transport

DATA REQUIREMENTS FOR A PROVINCE-WIDE TRAVEL DEMAND MODEL

David Kriger, Principal, David Kriger Consultants Inc.

OUTIL D'AIDE À L'EXPLORATION DES CHANGEMENTS DANS LES COMPORTEMENTS DE MOBILITÉ DES MONTRÉALAIS (ASSISTIVE TOOL TO EXPLORE CHANGES IN THE MOBILITY BEHAVIOUR OF MONTREALERS)

*presented in French

Catherine Morency, Associate Professor and Mobility Chair, Polytechnique Montréal; Hubert Verreault

2014 CENTENNIAL ROAD SAFETY, ROAD SAFETY ENGINEERING, AND EDUCATIONAL ACHIEVEMENT AWARDS NOMINATIONS (SES)

Room 515C, 5th Floor, PDC

Organized by TAC's Road Safety Standing Committee

Chair: Craig Milligan, Engineering Research Associate, University of Manitoba

The TAC Centennial Road Safety Awards provide an opportunity to recognize outstanding contributions to road safety over the past 100 years. Contributions bringing transformational and long-term improvements to road safety, as well as milestones of major progress in the field of road safety in Canada will be recognized.

TAC members that have made an exceptional contribution to exemplary projects or initiatives in road safety engineering are eligible to receive the Association’s annual Road Safety Engineering Award.

TAC members that have made an exemplary contribution to education and/or training relating to an in-house or external program are eligible to receive the Association’s annual Educational Achievement Award.

A selection committee reviewed the nominations received for these 2014 awards and recommended winners to TAC’s Board of Directors. The awards were conferred at today’s Lunch. Nominees have been invited to give presentations on their respective projects at this session.

CENTENNIAL ROAD SAFETY AWARD - CATEGORY: ACADEMIC RESEARCH

Dr. Terek Sayed, Professor and Distinguished University Scholar, University of British Columbia, Department of Civil Engineering (nominated and presented by Clark Lim, Principal, Acuere Consulting Inc.)

CENTENNIAL ROAD SAFETY AWARD - CATEGORY: ACADEMIC RESEARCH

Dr. Claire Laberge-Nadeau, Honorary Professor, Department of Social and Preventive Medicine, Faculty of Medicine, and Honorary Researcher CIRRELT, Université de Montréal (nominated and presented by Thameur M. Souissi, Technical Advisor, Ville de Montréal)

CENTENNIAL ROAD SAFETY AWARD - CATEGORY: OUTSTANDING CAREER

Dr. Ezra Hauer, Professor, University of Toronto (nominated and presented by Geni Bahar, President, NAVIGATS Inc.)

CENTENNIAL ROAD SAFETY AWARD - CATEGORY: PUBLIC SECTOR

Melanie Nolan on behalf of Jeannette Espie, Retired, Executive Director, Office of Traffic Safety, Alberta Transportation (nominated by Robert Duckworth, Infrastructure Management Systems Specialist, Alberta Transportation, presented by Rob Penny, Alberta Deputy Minister)

30 Minute Break

ROAD SAFETY ENGINEERING AWARD

ROAD SAFETY BENEFITS OF BRITISH COLUMBIA'S HIGH RISK CORRIDOR PROGRAM

Paul de Leur, Manager, Road Improvement Program, Insurance Corporation of British Columbia

LEGO VIDEOS FOR EDUCATING ROAD USERS ABOUT BICYCLE INFRASTRUCTURE

Tyler Golly, General Supervisor, Sustainable Transportation, City of Edmonton
16:25 ROAD SAFETY IN SAINT-LAURENT: PUTTING CITIZENS FIRST!
François Buteau, Head, Mecanics, Buildings and Road Lighting, Arrondissement de Saint-Laurent, Ville de Montréal

EDUCATIONAL ACHIEVEMENT AWARD

16:50 CAMPAGNE DE PRÉVENTION ET DE SENSIBILISATION POUR LA SÉCURITÉ EN VÉHICULES HORS ROUTE AU NUNAVIK (QUÉBEC) (OFF-HIGHWAY VEHICLE ACCIDENT PREVENTION AND SAFETY AWARENESS CAMPAIGN IN NUNAVIK (QUEBEC)) * presented in French
Marie-Eve Marchand, Project Manager, Nunavik Round Table on Off-Highway Vehicles, Kativik Regional Government

COVERING YOUR ASSETS: USING ASSET MANAGEMENT TOOLS TO REDUCE CLIMATE CHANGE IMPACTS (PD)
Room 516A, 5th Floor, PDC
Organized by TAC’s Asset Management Task Force and the Climate Change Task Force

Co-Chairs: Clark Gunter, Senior Project Manager, Infrastructure and Environment, MMM Group Limited and Nicole Fleury, Construction Programming Engineer, Manitoba Infrastructure and Transportation

Panelists
- TO BE CONFIRMED
  Michael D. Meyer, Consultant, Parsons Brinckerhoff
- TRANSPORTATION INFRASTRUCTURE - KEY ASSET MANAGEMENT CONSIDERATIONS IN ADAPTING TO CLIMATE CHANGE
  David Hein, Vice President, Transportation, Applied Research Associates, Inc.
- TO BE CONFIRMED
  Chubb Insurance Company of Canada
- TO BE CONFIRMED
  Silvana Croope

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 15:15

EVOLUTION OF TRAFFIC CONTROL DEVICES ENHANCING SAFETY, ACTIVE MODES AND EFFECTIVE TRAFFIC FLOW (SES)
Room 518B, 5th Floor, PDC
Organized by TAC’s Traffic and Operations Management Standing Committee

Chair: Daniel Beaulieu, Engineer, Transportation Management, Ville de Montréal

13:45 LE SONDAGE EN LIGNE 2013 SUR LA SIGNALISATION ROUTIÈRE (2013 ONLINE SURVEY ON ROAD SIGNAGE)* presented in French
Martin Lavallée, Mechanical Engineer, Road Signage, ministère des Transports du Québec; Maxime Côté

14:15 PEDESTRIAN SAFETY AT CROSSWALKS - EXAMINING DRIVER YIELDING BEHAVIOUR AT CROSSWALKS WITH GM1 AND OF SYSTEMS
Jaime Lacoste, MASc Student, Department of Civil Engineering, University of Manitoba; Alexandra Campbell; Sarah Klassen; Jeannette Montufar

14:45 THE GHOSTS OF TRAFFIC SIGNAL CONTROL - PAST, PRESENT AND FUTURE
Daniel Beaulieu, Engineer, Transportation Management, Ville de Montréal

15:15 30 Minute Break
15:45  THE IMPACT OF TRAFFIC CONTROL DEVICES ON DANGEROUS PEDESTRIAN CROSSINGS AND VIOLATIONS AT SIGNALIZED INTERSECTIONS: A CASE STUDY IN MONTREAL
Nicolas Saunier, Associate Professor, Polytechnique Montréal; Luis Miranda-Moreno; Marilyne Brosseau; Sohail Zangenehpour; Kevin Le Mouël

16:15  TRAFFIC SIGN LUMINANCE REQUIREMENTS OF NIGHTTIME DRIVERS
Fuat Aktan, Global Portfolio Manager, Traffic Safety and Security Division, 3M

16:45  EVALUATION OF SPEED MANAGEMENT STRATEGIES: A BEFORE AND AFTER STUDY
Pedram Izadpanah, Senior Project Management, CIMA++; Reza Omrani; Nick Zervos; Ali Hadayeghi

INTERNATIONAL PANEL DISCUSSION: TRANSPORTATION: PAST, PRESENT, FUTURE (PD)
Room 514AB, 5th Floor, PDC
Sponsored jointly by the Canadian National Committee and the PIARC-Quebec Committee of the World Road Association

Partners: ministère des Transports du Québec and Transport Canada

Chair: Jane Weldon, Canada’s First Delegate to PIARC, Chair of the Canadian National Committee and Director General, Transport Canada

Panelists
• INTRODUCTORY REMARKS
  Jane Weldon, Canada’s First Delegate to PIARC, Chair of the Canadian National Committee and Director General, Transport Canada, and André Meloche, Quebec First Delegate to PIARC, Assistant Deputy Minister, ministère des Transports du Québec
• INTRODUCTION AND INITIAL OBSERVATIONS ON THE IMPORTANCE OF TRANSPORTATION IN THE CONTEXT OF INTERNATIONAL TRADE IN THE GREATER MONTREAL REGION
  Michel Leblanc, President and Chief Executive Officer, Board of Trade of Metropolitan Montreal
• NORTH-AMERICAN PERSPECTIVE OF THE IMPORTANCE OF TRANSPORTATION TO INTERNATIONAL TRADE FROM A PAST, PRESENT AND FUTURE PERSPECTIVE
  Speaker to be confirmed
• MEXICAN PERSPECTIVE: TRANSPORTATION: PAST, PRESENT, FUTURE
  Roberto Aguerrebere, PIARC Mexico First Delegate, Instituto Mexicano del Transporte (IMT)
• AMERICAN PERSPECTIVE: TRANSPORTATION: PAST, PRESENT, FUTURE
  Jeff Paniatti, PIARC US First Delegate, Executive Director Department of Transportation, Federal Highway Administration
• CANADIAN PERSPECTIVE: TRANSPORTATION: PAST, PRESENT, FUTURE
  Louis Lévesque, Deputy Minister, Transport Canada
• QUEBEC’S PERSPECTIVE: TRANSPORTATION: PAST, PRESENT, FUTURE
  Dominique Savoie, Deputy Minister, ministère des Transports du Québec
• INTERNATIONAL PERSPECTIVE: TRANSPORTATION: PAST, PRESENT, FUTURE FROM THE WORLD ROAD ASSOCIATION’S PERSPECTIVE
  Oscar De Buen Richkarday, President, World Road Association
• AUSTRALIAN PERSPECTIVE: TRANSPORTATION: PAST, PRESENT, FUTURE
  Andrew Milazzo, President, Austroads
• CONCLUDING REMARKS
  Michel Leblanc, President and Chief Executive Officer, Board of Trade of Metropolitan Montreal

Discussion and Question-and-Answer Period

Panel includes a 30 minute coffee break at 15:15

KEY ISSUES IN TRANSPORTATION FUNDING AND GOVERNANCE IN LARGE CANADIAN METROPOLITAN AREAS (PD)
Room 514C, 5th Floor, PDC
Organized by TAC’s Transportation Finance Standing Committee
Chair: Lisa Salsberg, Manager, Strategic Policy and Systems Planning, Metrolinx

Panelists
- To be confirmed

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 15:15

MEASURING CONGESTION (SES)
Room 518C, 5th Floor, PDC
Organized by TAC’s Transportation Planning and Research Standing Committee of the Urban Transportation Council

Co-Chairs: David Kriger, President, David Kriger Consultants Inc. and Pierre Tremblay, Head, Modeling of Transportation Systems, ministère des Transports du Québec

13:45  CONGESTION À MONTRÉAL : MÉTHODE D’ANALYSE ET DE SUIVI (CONGESTION IN MONTREAL: ANALYSIS AND FOLLOW-UP METHOD) *presented in French
Marc-André Tessier, MASc Student, Polytechnique Montréal; Davood Zall, Catherine Morency, Martin Trépanier; Nicolas Saunier

14:15  PERFORMANCE EVALUATION AND ERROR SEGREGATION OF VIDEO-COLLECTED TRAFFIC SPEED DATA
Joshua Stipanic, Graduate Researcher, McGill University; Paul Anderson-Trocme; Luis Miranda-Moreno

14:45  OPEN511: INFORMATION MANAGEMENT AND TRAVELLER INFORMATION AT THE AGE OF OPEN DATA
Stéphane Guidoin, Director, Transportation Information, Open North

ROAD CONSTRUCTION – PAST, PRESENT, FUTURE (SES)
Room 513B, 5th Floor, PDC
Organized by TAC’s Maintenance and Construction Standing Committee

Chair: David Cogswell, Executive Director, Operations, New Brunswick Transportation and Infrastructure

13:45  13 HOURS TO REPLACE A SUPERSTRUCTURE
Gord Krieger, Director, Eastern Ontario, Transportation, WSP Canada Inc.

14:10  A UNIQUE PAVEMENT REHABILITATION TREATMENT FOR 6TH AVENUE SE CALGARY - CONCRETE OVERLAY
Bozena Czarnecki, Principal Specialist, Tetra Tech EBA; Mohammad Karim; Joe Chyc-Cies

14:35  CALGARY’S AIRPORT TRAIL TUNNEL - A PROJECT MANAGEMENT SUCCESS STORY
Andrew Boucher, Project Manager, CH2M Hill; Joost Bolderheij

15:00  INFRASTRUCTURES ROUTIÈRES : LA NOUVELLE AUTOROUTE 30 (ROAD INFRASTRUCTURES : THE NEW HIGHWAY 30) *presented in french
Guy Tremblay, Technical Director, Béton préfabriqué du lac (BPDL) and Benoit Fradet, Vice President, Schokbeton

15:30  15 Minute Coffee Break

15:45  PORT MANN/HIGHWAY 1 IMPROVEMENT PROJECT: A MAJOR DESIGN-BUILD PROJECT THROUGH METRO VANCOUVER’S DENSEST URBAN CORRIDOR
Aled Griffiths, Principal Project Manager, Hatch Mott MacDonald; Marek Buksowicz

16:15  MAKING NBSL HAPPEN
Douglas Balmer, Associate Principal, Arup Canada Inc.

ROAD SAFETY POLICY DEVELOPMENT – PAST, PRESENT, FUTURE (A) (SES)
Room 513D, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee

Chair: Peter Park, Associate Professor, Department of Civil & Geological Engineering, University of Saskatchewan
13:45 ACCELERATED INTERSECTION IMPROVEMENTS ENHANCE SAFETY
David Nyberg, Business Manager, Traffic Safety and Security Division, 3M; Joey D. Riddle

14:15 MEETING CANADA’S NEW GRADE CROSSING REGULATIONS
Floris van Weeldereren, Manager, Transportation Planning, MMM Group Limited

14:45 SAFE SYSTEM INTERSECTION APPLICATION FOR THE EDMONTON CAPITAL REGION - PILOT PROJECT
Marcel Huculak, Senior Engineer, Capital Region, Intersection Safety Partnership

15:15 30 Minute Break

15:45 SO YOU’RE CONSIDERING A RED LIGHT CAMERA PROGRAM? – LESSONS AND INSIGHTS FROM OVER A DECADE OF CAMERA OPERATION IN SOUTH AND CENTRAL ONTARIO
Hart Solomon, Senior Engineer, Transportation, CIMA+; Pedram Izadpanah; Mike Brady; Alireza Hadayeghi

16:15 TRAVERSÉE DE LA RUE - ATTENTES DES PIÉTONS À MONTRÉAL (STREET CROSSING – PEDESTRIAN EXPECTATIONS IN MONTREAL) *presented in French
Nancy Badeau, Engineer, Team Leader, Ville de Montréal; Nadine D’Ambroise

SERVICEABILITY APPROACH TO ASSET MANAGEMENT (SES)
Room 513C, 5th Floor, PDC
Organized by TAC’s Pavements Standing Committee & Asset Management Task Force

Partner: SNC-Lavalin Inc.

Chair: Jean Carrier, Senior Project Manager, Pavement Management Division, Groupe Qualitas Inc.

13:45 A PERFORMANCE-BASED PAVEMENT MANAGEMENT SYSTEM FOR THE ROAD NETWORK OF THE CITY OF MONTREAL
Md Shohel Reza Amin, PhD Student, Concordia University; Luis E. Amador-Jiménez

14:15 DEVELOPMENT OF A DECISION SUPPORT TOOL FOR ARTERIAL ROADS REHABILITATION IN HAMILTON
Amr Ayed, Project Manager, Stantec Consulting Ltd.; Richard Andoga; John Murray; Leanne Whiteley-Lagace; Andy Dalziel

14:45 EFFECT OF UTILITY CUTS ON SERVICEABILITY OF PAVEMENT ASSETS – A CASE STUDY FROM THE CITY OF CALGARY
Mohammad Karim, Business Strategist, City of Calgary; Rabiah Rizvi; Vimy Henderson; Ludomir Uzarowski; Joe Chyc-Cies

STRATEGIES FOR SUCCESSION PLANNING AND MID-LEVEL MANAGEMENT DEVELOPMENT (WS)
Room 521ABC, 5th Floor, PDC
Organized by TAC’s Education and Human Resources Development Council

This workshop will showcase how organizations have implemented tools and programs for succession planning and discuss associated challenges and possible solutions. It will highlight recruitment, retention and succession issues unique to mid-level managers; explore ways to retain talent and ensure leadership depth.

Co-Chairs: Ana Lopez, Vice President, Human Resources, TransLink and Adam Hayashi, Director, Market Intelligence and Economic Policy, Cement Association of Canada

Speakers
- Ana Lopez, Vice President, Human Resources, TransLink
- Adam Hayashi, Director, Market Intelligence and Economic Policy, Cement Association of Canada
- Alan Gee, Director, Organizational Development, Stantec Consulting Ltd.
- Debra Somani, Director, Organizational Development & Effectiveness, Human Resources, Alberta Transportation

STRUCTURES (A) (SES)
Room 513A, 5th Floor, PDC
Organized by TAC’s Structures Standing Committee
**Partner: SNC-Lavalin Inc.**

Chair: *Darrell Evans*, Acting Assistant Director, Capital Projects Division, Prince Edward Island Transportation and Infrastructure Renewal

13:45 ROTATED-ELLIPSE ARCH PEDESTRIAN BRIDGE FOR THE CALGARY WEST LIGHT RAIL TRANSIT EXTENSION PROJECT  
*Edmund Ho*, Project Engineer, MMM Group Limited; *Monty Knous*

14:15 USE OF EPS AS A LIGHTWEIGHT FILL MATERIAL ON THE PORT MANN / HIGHWAY 1 IMPROVEMENT PROJECT, VANCOUVER TO LANGLEY, BC  
*Marek Bukrowsic*, Structures Team Lead, Hatch Mott MacDonald; *Stuart Culpan*

14:45 PROPOSED DESIGN METHODOLOGY OF FIBER REINFORCED POLYMER ANCHORS WITH 90° BENDS INTO REINFORCED CONCRETE  
*Gaetano Bologna*, Division Director of Transportation Infrastructure, Fyfe Company; *Matt Gerpheide*

15:15 30 Minute Coffee Break

15:45 FINITE ELEMENT ANALYSIS OF STRUCTURAL STEEL IMPACT DAMAGE AND HEAT STRAIGHTENING  
*Norman Fong*, Research Assistant, University of Waterloo; *Robert Gracie; Scott Walbridge*

16:15 REHABILITATION WORKS FOR PINAWA BRIDGE OVER THE WINNIPEG RIVER  
*Vaibhav Banthia*, Senior Structural Engineer, Tetra Tech EBA, and *Troy Hengen*, Bridge Inspection Engineer, Manitoba Infrastructure and Transportation and *Beth Phillips*, Structural Engineer, Tetra Tech EBA

16:45 RELIABILITY-BASED LIFE CYCLE DESIGN OF RESILIENT HIGHWAY BRIDGES  
*Zoubir Lounis*, Senior Research Officer, Civil Engineering Infrastructure, National Research Council Canada

**WINTER MAINTENANCE (SES)**
Room 519A, 5th Floor, PDC  
Organized by TAC’s Maintenance and Construction Standing Committee

Chair: *Anne Baril*, Department Head, ministère des Transports du Québec

13:45 A COST-EFFECTIVE MAINTENANCE TREATMENT FOR IMPROVING AIRFIELD PAVEMENT FRICTION  
*Richard Korczak*, Project Manager, Stantec Consulting Ltd.; *Mohab El-Hakim; Amir Abd El Halim; Kevin Doyle; Tony Wagner*

14:10 EVOLUTION OF INFORMATION AND DECISION SUPPORT TOOLS IN WINTER ROAD MAINTENANCE - ALBERTA EXPERIENCE  
*Beata Bielkiewicz*, ITS Engineer, Alberta Transportation and *Shawn Truelson*, Business Development – Weather Services, Schneider Electric; *Allan Lo*

14:35 TORONTO WINTER MAINTENANCE PROGRAM REVIEW  
*John Hubbell*, Associate Vice President and Senior Transportation Leader, HDR Corporation; *Peter Noehammer; Dominic Guthrie; Adrian Lightstone*

15:00 L’ENTRETIEN HIVERNAL DES ROUTES : CONCILIER PROTECTION DE L’ENVIRONNEMENT ET SÉCURITÉ ROUTIÈRE (WINTER MAINTENANCE: CONCILATE PROTECTION OF THE ENVIRONMENTAL AND ROAD SAFETY) *presented in French*  
*Audrée Perreault* and *Naomie Gagnon*, Operations Support Management, Operations Division, secteur de la viabilité hivernale, ministère des Transports du Québec

**~ TUESDAY, SEPTEMBER 30 – 08:30-12:00 ~**

**ASSET MANAGEMENT: REINVENTING ORGANIZATIONS FOR THE NEXT 100 YEARS (A) (SES)**
Room 513B, 5th Floor, PDC  
Organized by TAC’s Asset Management Task Force

**Partner: Intergraph**
Chair: Nicole Fleury, Construction Programming Engineer, Contract Services, Manitoba Infrastructure and Transportation, Engineering and Operations Division

08:30 INTEGRATED ROADWAY ASSET MANAGEMENT (IRAM)
   Milos Posavljak, MASc Student, Ministry of Transportation, Ontario, University of Waterloo; Susan Tighe

09:00 NEW BRUNSWICK TRANSPORTATION AND INFRASTRUCTURE’S STRATEGIC MULTI-CRITERIA ANALYSIS MODEL FOR CAPITAL INFRASTRUCTURE INVESTMENTS
   Karen Robichaud, Manager, Transportation Engineering, Opus International Consultants (Canada) Ltd. and James Doyle, Assistant Director, Multimodal Strategic Planning, New Brunswick Transportation and Infrastructure

09:30 IS THE CURRENT LEVEL OF SERVICE OF THE HIGHWAY NETWORK FINANCIALLY SUSTAINABLE?
   Raymond J. Gerke, Chief Executive Officer, Vemax Management Inc.; Nichole Andre; J. Matthew Hildebrand

10:00 30 Minute Coffee Break

10:30 CLOUD-COMPUTING TO PROMOTE BEST ASSET MANAGEMENT PRACTICES – A MINISTRY OF TRANSPORTATION ONTARIO CASE STUDY
   Benjamin Ong, Pavement Analyst, Fugro Roadware; Jason Wade; Andrew Howard; D.J. Swan

11:00 TRANSPORTATION EDUCATION PROVIDES A FOUNDATION AND A LEGACY FOR ADVANCING ASSET MANAGEMENT
   Ralph Haas, The Norman W. McLeod Engineering Professor and Distinguished Professor Emeritus, Civil and Environmental Engineering, University of Waterloo; Lynne Cowe Falls

BEST PRACTICES IN URBAN TRANSPORTATION PLANNING (B) (SES)
Room 515C, 5th Floor, PDC
Organized by TAC’s Transportation Planning & Research Standing Committee

Chair: David Duncan, Senior Transportation Planning Engineer, Transportation Systems Planning and Development, Manitoba Infrastructure and Transportation

08:30 APPLICATION OF DYNAMIC TRAFFIC ASSIGNMENT (DTA) MODEL TO EVALUATE NETWORK TRAFFIC IMPACT DURING BRIDGE CLOSURES - A CASE STUDY IN EDMONTON, ALBERTA
   Peter Xin, Senior Transportation Engineer, City of Edmonton; Arun Bhowmick; Ido Juran

09:00 DISRUPTION, CONGESTION AND MITIGATION: CHARACTERISATION OF STRATEGIC ROAD INFRASTRUCTURE USING PARTIAL ITINERARY DATA
   Timothy Spurr, Specialist, Analysis and Modelling, Agence métropolitaine de transport

09:30 FREEWAY INTERCHANGE PLANNING: A PUBLIC INVOLVEMENT SUCCESS STORY
   Natalie Lazurko, Senior Engineer, City of Edmonton; Rob Gibbard

THE CHALLENGES OF ETHICS – WHAT WOULD YOU DO? (PD)
Room 516A, 5th Floor, PDC
Organized by TAC’s Education & Human Resource Development Council

Chair: Jean-François Gysel, Vice President, SNC Lavalin Inc.

Panelists
- Gerry Chaput, Assistant Deputy Minister, Ministry of Transportation, Ontario
- Christine O’Doherty, to be confirmed, Ordre des ingénieurs du Québec
- Saed Mira, to be confirmed, McGill University (invited)
- John Gamble, President, Association of Consulting Engineering Companies - Canada (ACEC) (invited)

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00
CHARACTERIZATION OF SOILS AND PAVEMENT MATERIALS FOR MECHANISTIC EMPIRICAL PAVEMENT DESIGN (SES)
Room 513A, 5th Floor, PDC
Organized by TAC’s Soils and Materials Standing Committee

Partner: SNC-Lavalin Inc.

Chair: Danielle Fleury, Head, Geology and Geotechnical, ministère des Transports du Québec

08:30 EVALUATING THE POTENTIAL FOR HOT MIX ASPHALT RUTTING PERFORMANCE USING LABORATORY AND DIGITAL IMAGING TECHNIQUE
Magdy Shaheen, PhD Student, University of Waterloo; Adil Al-Mayah; Susan Tighe

08:55 EVALUATION OF ASPHALT BINDER CHARACTERISTICS OF TYPICAL ONTARIO SUPERPAVE® CRUMB RUBBER MODIFIERS (CRM) AND RECLAIMED ASPHALT PAVEMENT (RAP) HOT MIX ASPHALT MIXTURES
Sina Varamini, PhD Candidate, Centre for Pavement and Transportation Technology (CPATT), University of Waterloo; Doubra Ambaiowi; Xiomara Sanchez; Susan Tighe

09:20 LABORATORY PERFORMANCE OF ASPHALT EMULSION TREATED BASE FOR COLD REGIONS APPLICATIONS
Bahador Barbod, MASc Student, University of Manitoba; Ahmed Shalaby

09:45 MECHANISTIC DESIGN SENSITIVITY ANALYSIS FOR CITY OF SASKATOON PAVEMENT STRUCTURE DESIGN
Duane Guenther, Senior Project Engineer, PSI Technologies Inc.; Roberto Soares; Rielle Haichert; Farukh Sharipov; Curtis Berthelot

10:10 20 Minute Break

10:30 MODULE COMPLEXE DES ENROBÉS ET MODULE RÉVERSIBLE DES MATÉRIAUX GRANULAIRES POUR LE DIMENSIONNEMENT MÉCANISTE-EMPIRIQUE DES CHAUSSEÉES AU QUÉBEC (COMPLEX MODULUS OF ASPHALT MIXES AND RESILIENT MODULUS OF GRANULAR MATERIALS FOR MECHANISTIC-EMPIRICAL PAVEMENT DESIGN IN QUEBEC) *presented in French
Felix Doucet, Project Manager, ministère des Transports du Québec; Maxime Laplante-Boivin; Bruno Auger

11:00 MONITORING THE STRUCTURAL BEHAVIOUR VARIATION OF A FLEXIBLE PAVEMENT STRUCTURE DURING FREEZE THAW
Jean-Pascal Bilodeau, Research Associate, Laval University; Junyan Yi; Guy Doré; Fritz Prophète

11:30 OVERVIEW OF SPECIFICATIONS FOR UNBOUND GRANULAR BASE MATERIALS IN SELECTED CANADIAN PROVINCES AND NEIGHBOURING STATES
Haithem Soliman, Doctoral Student, University of Manitoba; Ahmed Shalaby; Said Kass

CLIMATE CHANGE ISSUES FOR NORTHERN TRANSPORTATION INFRASTRUCTURE ENGINEERING (PD)
Room 514C, 5th Floor, PDC
Organized by TAC’s Engineering and Research Support Committee, Northern Transportation Infrastructure in the Presence of Climate Change Subcommittee

Chair: Anne-Marie Leclerc, Assistant Deputy Minister, Infrastructures and Technologies, ministère des Transports du Québec

Panelists
- ASSESSMENT OF VULNERABILITY OF AIRPORTS AND ROADS BUILT ON PERMAFROST FOR THE DESIGN OF ADAPTATION STRATEGIES TO CLIMATE CHANGE
  Michel Allard, Professor, Department of Geography and Researcher, Centre d’études nordiques, Université Laval
- RESULTS OF TEN-YEAR OF EXPERIMENTATION OF PERMAFROST PROTECTION TECHNIQUES IN NORTHERN QUEBEC AND CANADA
  Guy Doré, Professor, Technical Director of Graduate Studies, NSERC Industrial Chair (i3C), Université Laval, Civil Engineering
- CLIMATE CHANGE ADAPTATION OF NORTHERN TRANSPORTATION INFRASTRUCTURE IN PERMAFROST REGIONS: YUKON, NORTHWEST TERRITORIES, NUNAVUT, MANITOBA AND QUEBEC
Paul Murchison, Director, Yukon Highways and Public Works, Transportation Engineering Branch; Kevin McLeod, Director, Highways and Marine Services Division, Transportation, Government of the Northwest Territories; Art Stewart, Director, Transportation Policy and Planning, Nunavut Department of Economic Development and Transportation; Said Kass, Director, Materials Engineering Branch, Manitoba Infrastructure and Transportation; Philippe Lemire, Director, Office of Coordination, Quebec North, ministère des Transports du Québec

- CLIMATE CHANGE IMPACT ON TRANSPORTATION INFRASTRUCTURE ON PERMAFROST IN NORWAY
  Arne Instanes, Adjunct Professor, University Centre in Svalbard, Bergen University College, INSTANES POLARAS

- ICE ROADS AND A FRAMEWORK FOR RISK MANAGEMENT
  Alan Fitzgerald, President and Chief Executive Officer, NOR-EX Ice Engineering Inc.

- VULNERABILITY ASSESSMENT OF MARINE INFRASTRUCTURES IN NUNAVIK-QUEBEC IN A CONTEXT OF CLIMATE CHANGE
  Christian Poirier, Head, Hydraulics Division, Structures, ministère des Transports du Québec

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00

COMPLETE STREETS (PD)
Room 516D, 5th Floor, PDC
Organized by TAC's Sustainable Transportation Standing Committee

Chair: Roxane MacInnis, Senior Project Planner, MMM Group Limited

Panelists
- A TORONTO-BASED APPROACH TO COMPLETE STREETS
  Elyse Parker, Director, Public Realm Section, City of Toronto

- COMPLETE STREETS IN MONTREAL
  Sylvie Tremblay, Team Leader, Urban Planning, Transportation Management, Ville de Montréal

- DOWNTOWN MOVES AND COMPLETE STREETS IN OTTAWA
  Ron Clarke, Manager of Planning and Design, Parsons

- OPTIMIZING STREETS FOR PEOPLE – A CASE STUDY OF THE WEST END COMMUNITY PLAN IN THE CITY OF VANCOUVER
  Jayson Walker, Senior Transportation Engineer, Urban Systems and Holly Sovdi, Principal Downtown Planner, City of Vancouver

- SHARED SPACES IN CANADA: AN EVALUATION OF THEIR APPLICABILITY USING FOCUS GROUPS
  Jean-François Bruneau, Associate Professor, École Polytechnique

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00

EXPERIENCE WITH PAVEMENT ME DESIGN (A) (SES)
Room 518A, 5th Floor, PDC
Organized by TAC's Pavements Standing Committee

Partner: SNC-Lavalin Inc.

Chair: Hugh Donovan, Construction Services Engineer, Transportation and Streets, City of Edmonton

08:30 AN EXPERIMENTAL DESIGN BASED EVALUATION OF SENSITIVITIES OF MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE (MEPDG) PREDICTIONS FOR ONTARIO’S LOCAL CALIBRATION
  Gulfam Jannat, Student, University of Waterloo; Susan Tighe

09:00 COMPARATIVE ANALYSIS OF PAVEMENT REHABILITATION DESIGNS USING AASHTOWARE PAVEMENT ME, AASHTO 1993 AND SURFACE DEFLECTION METHODS
  M. Alauddin Ahammed, Pavement Design Engineer, Manitoba Infrastructure and Transportation; Said Kass; Stan Hilderman; Maria Elena Oberez; William Tang
09:30  LESSONS LEARNED BY CANADIAN PRACTITIONERS IN INTERPRETING AND APPLYING PAVEMENT ME DESIGN RESULTS
    Mark Popik, Senior Pavement Engineer, Thurber Engineering Ltd.; Hugh Donovan

10:00  30 Minute Coffee Break

10:30  MECHANISTIC-EMPIRICAL EVALUATION OF THE IMPACT OF SPRING LOAD RESTRICTIONS
    David Hein, Vice President, Transportation, Applied Research Associates, Inc.; Shila Khanal

11:00  MIX SPECIFIC RUTTING MODEL CALIBRATION IN COLORADO
    Aleks Kivi, Pavement Engineer, Applied Research Associates, Inc.; Biplab Bhattacharya; Leslie Titus-Glover

11:30  RELIABILITY SENSITIVITY OF PAVEMENT ME DESIGN
    Kimberley Edmunds, Pavement Design Engineer, Alberta Transportation; Marta Juhasz; M. Alauddin Ahammed

GEOMETRIC DESIGN – PRESENT CHALLENGES (A) (SES)
Room 513C, 5th Floor, PDC
Organized by TAC’s Geometric Design Standing Committee

Chair: Bob Koziol, Manager, Municipal Transportation Partner, MMM Group Limited

08:30  CONSIDERATION OF A DIVERGING DIAMOND INTERCHANGE IN SASKATCHEWAN
    Paul Steel, Transportation Engineer, Tetra Tech EBA; Terry Schmidt; Brent L. Miller

09:00  ROAD DESIGN – PRESENT CHALLENGES FACING A ROAD AUTHORITY
    Alastair de Beer, Project Engineer, Road Safety, National Roads Authority Ireland

09:30  PAST-PRESENT-FUTURE OF THE TRANS-CANADA HIGHWAY IN BC FROM KAMLOOPS TO THE ALBERTA BORDER
    Amanda Pellam, Project Engineer, ISL Engineering and Land Services Ltd.; Frank Dacho; Zane Sloan

10:00  30 Minute Coffee Break

10:30  RECONSTRUCTION OF WYNDHAM STREET AND CN STRUCTURE – CITY OF GUELPH
    Paul Smeltzer, Principal Consultant, AMEC Environment & Infrastructure

11:00  THE HIGHWAY 63 / HIGHWAY 686 PARSONS INTERCHANGE – CHALLENGES IN ADDRESSING THE DEMANDS OF A
    CHANGING ECONOMIC AND POLITICAL ENVIRONMENT
    Roy Biller, Manager, Highway Design and Construction, ISL Engineering and Land Services Ltd.; Ian Pestano

11:30  UPDATING THE SASKATCHEWAN PASSING LANE DESIGN GUIDE FOR PLANNING AND PRIORITIZATION PURPOSES
    Richard Tebinka, Partner and Regional Manager, MMM Group Limited; Andrea Tresek

GREEN TECHNOLOGIES – INNOVATION TO IMPLEMENTATION AND EVALUATION (A) (SES)
Room 513D, 5th Floor, PDC
Organized by TAC’s Pavements Standing Committee

Partner: SNC-Lavalin Inc.

Chair: Tom Kazmierowski, Senior Consultant, Golder Associates Ltd.

08:30  COMPARING TEN-YEAR PERFORMANCE OF COLD IN-PLACE RECYCLING (CIR) WITH EMULSION VERSUS CIR WITH
    EXPANDED ASPHALT ON HIGHWAY 7, PERTH, ONTARIO
    Becca Lane, Manager, Materials Engineering and Research Office, Ministry of Transportation, Ontario; Warren Lee

09:00  PREDICTING THE DURABILITY OF WARM MIX ASPHALT
    David Woodward, Reader in Infrastructure Engineering, University of Ulster; Karen Kennedy; Ruth Mitchell; Donal
    Ryan; Phillip Millar

09:30  EVALUATION OF RECYCLED CONCRETE AGGREGATE FOR USAGE IN HIGHWAY AND MUNICIPAL CONCRETE
    APPLICATIONS
    Daniel Pickel, PhD Candidate, University of Waterloo; Susan Tighe; Jeffrey West
10:00 30 Minute Coffee Break

10:30 OPTIMIZING CONTAINER TERMINAL PAVEMENT DESIGN WITH A SUB-BASE MADE FROM CONTAMINATED SOIL TREATED BY SOLIDIFICATION AND STABILIZATION – PORT OF MONTREAL’S VIAU SECTOR REDEVELOPMENT

Louis D’Amours, Vice President, Business Development, Groupe Qualitas Inc.; Jean-Philippe Boudreault; Jean-Claude Mwamba; Éric Hardy; Serge Kouadio; Hugo Brassard; Jean-Sébastien Dubé

11:00 THE USE OF ENGINEERED SOILS IN CANADA

Tim Smith, Pavement Solutions Manager, Lafarge Canada East; Christopher L. Barnes; Steve Zupko

11:30 USE OF STRUCTURAL DOME FORMWORK SYSTEMS IN SUSTAINABLE TRANSPORTATION APPLICATIONS

Aleks Kivi, Pavement Specialist, Applied Research Associates, Inc.; David Hein

HOW TO CONDUCT AN IN-SERVICE ROAD SAFETY REVIEW PART I (WS)
Room 521ABC, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee

This workshop will present operational reviews conducted in the field at various intersections; raise awareness of road safety engineering issues, solutions and analytical techniques and identify opportunities to improve the safety performance of transportation infrastructure on a daily basis. Participants will be able to apply their road safety knowledge to real-life scenarios.

A site visit is included in this workshop. Delegates must attend both parts I and II.

Co-Chairs: Pedram Izadpanah, Associate Partner, Senior Project Manager, Traffic Engineering, CIMA+ and Steven Melton, General Manager, Roadway Engineering Manager, ISL Engineering and Land Services Ltd.

The workshop will be hosted by three instructors on the following topics:

1. ROAD SAFETY PROCESS: Brian Malone, CIMA+
2. HUMAN FACTORS: Tom Smahel, Human Factor North
3. ECONOMIC ANALYSIS: Abdelaziz Manar, Ville de Montréal *presented in French

MUNICIPALITIES AND RAINWATER MANAGEMENT (PD)
Room 514AB, 5th Floor, PDC
Organized by TAC’s Climate Change Task Force

Chair: Claude Carette, Transportation Director, Ville de Montréal

Panelists

- RAINWATER MANAGEMENT AND CLIMATE CHANGE
  Alain Mailhot, Professor, INRS-ETE

- L’ATLAS HYDROCLIMATIQUE DU QUÉBEC MÉRIDIONAL : UN OUTIL POUR ANTICIPER L’IMPACT DES CHANGEMENTS CLIMATIQUES À L’ÉCHELLE DES BASSINS VERSANTS (HYDROCLIMATIC ATLAS OF MERIDIAN QUEBEC: A TOOL TO ANTICIPATE THE IMPACT OF CLIMATE CHANGE IN CATCHMENT AREAS) *presented in French
  Jean-François Cyr, Engineer, Centre d’expertise hydrique, ministère du Développement durable, de l’Environnement et de la lutte contre les changements climatiques (MDDELCC)

- THE MUNICIPAL ADAPTATION APPROACH
  Caroline Larrivée, Coordinator of Vulnerabilities, Impacts and Adaptation Program, Ouranos

- ADAPTATION TO CLIMATE CHANGE AT THE MUNICIPAL LEVEL, PLANNING AND ACTION
  Julien St-Laurent, Ville de Trois-Rivières

- FLOOD VULNERABILITY ANALYSIS IN AN URBAN ENVIRONMENT IN A CLIMATE CHANGE CONTEXT: THE CASE OF VILLE DE MONTRÉAL
  Isabelle Thomas, Professor, Urban Planning Institute, Université de Montréal

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00
ROAD SAFETY INITIATIVES IN SMALL MUNICIPALITIES (PD)
Room 515AB, 5th Floor, PDC
Organized by TAC’s Small Municipalities Task Force

Chair: Catherine Berthod, Engineer and Urban Planner, ministère des Transports du Québec

Panelists

- ACTIONS DE SÉCURITÉ ROUTIÈRE DE LA MUNICIPALITÉ DE SAINT-LIBOIRE (ROAD SECURITY ACTIONS OF THE MUNICIPALITY OF SAINT-LIBOIRE) *presented in French
  Yves Winter and Guylaine Morin, Municipal Councillors, municipalité de Saint-Liboire

- DIAGNOSTIC ET PLAN D’ACTION DE SÉCURITÉ ROUTIÈRE EN MILIEU MUNICIPAL : LE CAS DE LA MUNICIPALITÉ RÉGIONALE DE COMTÉ D’ARTHABASKA (DIAGNOSTIC AND ROAD SECURITY ACTION PLAN IN MUNICIPAL ZONES : REGIONAL MUNICIPALITY OF ARTHABASKA COUNTY CASE STUDY) *presented in French
  Nicolas Saunier, Associate Professor, Polytechnique Montréal

- ROAD SAFETY EXPERIENCES IN AN AGING COMMUNITY
  Raheem Dilgir, President, TranSafe Consulting Ltd.

- THE ROUNDABOUT EXPERIENCE IN THE CITY OF FREDERICTON
  Darren Charters, Traffic Engineer, City of Fredericton

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00

ROAD SAFETY POLICY DEVELOPMENT – PAST, PRESENT, FUTURE (B) (SES)
Room 518C, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee

Chair: Peter Park, Associate Professor, Civil and Geological Engineering, University of Saskatchewan

08:30 ÉTALONNAGE DES MODÈLES DU MANUEL DE SÉCURITÉ ROUTIÈRE POUR LE QUÉBEC (CALIBRATION OF HIGHWAY SAFETY MANUAL MODELS FOR QUEBEC) *presented in French
  Patrick Barber, Engineer, ministère des Transports du Québec

08:50 LESSONS LEARNED FROM ADOPTING THE HIGHWAY SAFETY MANUAL TO ASSESS THE SAFETY PERFORMANCE OF ALTERNATIVE URBAN COMPLETE STREET DESIGNS
  Sudip Barua, Graduate Research Assistant, University of Alberta; Karim El-Basyouny; Md. Tazul Islam; Suliman Gargoum

09:10 PERFORMANCE MEASURES FOR INTER-AGENCY COMPARISON OF ROAD NETWORKS SAFETY
  Ralph Haas, The Norman W. McLeod Engineering Professor and Distinguished Professor Emeritus, Civil and Environmental Engineering, University of Waterloo; Amir Abdelhalim; Khaled Helali; Amr Ayed

09:30 SAFETY PERFORMANCE FUNCTIONS TO ASSESS SAFETY RISKS ON URBAN RESIDENTIAL COLLECTOR ROADS
  Sudip Barua, Graduate Research Assistant, University of Alberta; Karim El-Basyouny; Md. Tazul Islam

TRAFFIC OPERATIONS TOOLBOX (SES)
Room 519A, 5th Floor, PDC
Organized by TAC’s Traffic and Operations Management Standing Committee

Chair: Ron Stewart, Deputy Regional Director, Canada Central, IBI Group

08:30 COLLISION PREVENTION THROUGH ENVIRONMENTAL DESIGN
  Chris Hunter, Provincial Constable, Ontario Provincial Police

09:00 MESURES MISES EN PLACE POUR AMÉLIORER LA SÉCURITÉ DES TRAVAILLEURS ET DES USAGERS DE LA ROUTE SUR LES SITES DE TRAVAUX ROUTIERS (MESURES TO IMPROVE WORKER AND USER SECURITY FOR ROAD CONSTRUCTION SITES) *presented in French
  Michel Masse, Engineer, ministère des Transports du Québec
UTILITIES MANAGEMENT – PAST, PRESENT, FUTURE (SES)
Room 518B, 5th Floor, PDC
Organized by TAC’s Maintenance and Construction Standing Committee
Chair: Lawrence Arcand, President, T2 Utility Engineers

08:30 ALBERTA TRANSPORTATION UTILITY POLICY AND STANDARDS
Joe Mah, Group Leader, Utilities, Alberta Transportation

09:00 ASCE 38-02 CSA 250 - THE BEFORE AND AFTER OF LARGE INFRASTRUCTURE PROJECTS
Ophir Wainer, Business Development / Montreal Branch Manager, T2 Utility Engineers

09:30 SUBSURFACE UTILITY ENGINEERING (SUE): AVOIDING 4 POTENTIAL PITFALLS TO ENSURE A SUCCESSFUL PROGRAM
Kevin Vine, General Manager, multiVIEW

10:00 30 Minute Coffee Break

10:30 GESTION DE L’OCCUPATION DE L’EMPRISSE MUNICIPALE PAR LES ENTREPRISES DE RÉSEAUX TECHNIQUES URBAINS (RTU) (MANAGEMENT OF THE OCCUPATION OF MUNICIPAL RIGHT-OF-WAYS BY TECHNICAL URBAN NETWORK ORGANIZATIONS) *presented in French
Radhia Djellal, Engineer, Big Projects, Ville de Montréal

11:00 LA PRISE EN COMPTE DES ENTENTES-CADRES DE SERVICES PUBLICS DANS LE CHEMINEMENT DES ACTIVITÉS D’UN PROJET ROUTIER (IMPLEMENTATION OF UTILITY MASTER AGREEMENTS IN TRACKING THE ACTIVITIES OF A ROAD PROJECT) *presented in French
Normand Tremblay, Civil Engineer and Responsible for Utility Accommodation Guidelines and Master Agreements, Operations Support, ministère des Transports du Québec

~ TUESDAY, SEPTEMBER 30 – 10:30-12:00 ~

INCORPORATING SOCIO-ECONOMIC FACTORS INTO ENVIRONMENTAL ASSESSMENTS OF TRANSPORTATION PROJECTS (PD)
Room 519A, 5th Floor, PDC
Organized by TAC’s Environment Council
Chair: to be confirmed

• SOCIO-ECONOMIC IMPACT ASSESSMENT OF TRANSPORT PROJECTS – THE APPROACH TAKEN BY MULTI-LATERAL DEVELOPMENT BANKS
  William V. Kennedy, Adjunct Professor, Independent Environmental Consultant, Concordia University

• RT. HON. HERB GRAY PARKWAY SOCIO-ECONOMIC IMPACT ASSESSMENT: ADAPTING PROPERTY ACQUISITION AND MANAGEMENT PROCESSES TO MITIGATE IMPACTS AND MAINTAIN THE SCHEDULE OF A LARGE SCALE TRANSPORTATION PROJECT
  Joel Foster, Head, Environmental Project Delivery Office, Windsor Border Initiatives Implementation Group, Ministry of Transportation, Ontario

• L’INTÉGRATION DES PRÉOCUPATIONS SOCIO-ÉCONOMIQUES DANS LE CHOIX DU SCÉNARIO À PRIVILÉGIER POUR CONSTRUIRE UN PROJET AUTOROUTIER (INTEGRATING SOCIO-ECONOMIC CONCERNS IN THE SELECTION OF A PREFERRED SCENARIO FOR A HIGHWAY PROJECT) *presented in French
  David Boudreau, Head, Environmental Division, ministère des Transports du Québec

• SOCIO-ECONOMIC ASSESSMENT AND IMPACTS OF THE PORT MANN / HIGHWAY 1 IMPROVEMENT PROJECT
  Robin Taylor, Senior Environmental Assessment Manager, Hemmera Inc.

Discussion and Question-and-Answer Period
PAST, PRESENT AND FUTURE CHALLENGES IN SMALL MUNICIPALITIES (PD)
Room 515AB, 5th Floor, PDC
Organized by TAC’s Small Municipalities Task Force
Chair: Mike Skene, to be confirmed, Boulevard Transportation Group

Panelists
- PEDESTRIAN CROSSING ISSUES IN THE DOWNTOWN CORE – MILTON ON
  Heide Schlegl, Coordinator, Traffic and Parking, Town of Milton (Ontario)
- TRANSIT IN CHILLIWACK PAST, PRESENT AND FUTURE
  to be confirmed
- ENVIRONMENTAL LEGISLATION IMPACTS ON SMALL TOWNS
  Don Snider, Director, Environmental Management Services, Alberta Transportation
- ENVIRONMENTAL MANAGEMENT PRACTICES
  Clark Gunter, Senior Project Manager, Infrastructure and Environment, MMM Group Limited
- TO BE CONFIRMED
  Greg O’Brien, Manager, Traffic and Transportation, WSP Canada Inc.

Discussion and Question-and-Answer Period

~ TUESDAY, SEPTEMBER 30 – 13:45-17:15 ~

ASSET MANAGEMENT: REINVENTING ORGANIZATIONS FOR THE NEXT 100 YEARS (B) (SES)
Room 513B, 5th Floor, PDC
Organized by TAC’s Asset Management Task Force
Chair: Al Cepas, Pavement Management Engineer, Roadway Maintenance Section, Transportation Services, City of Edmonton
13:45 ASSET MANAGEMENT: BACK TO THE FUTURE
  Bradley Leeman, Director, Infrastructure and Funding Strategies, City of Edmonton
14:05 DEVELOPMENT PRACTICES FOR MUNICIPAL PAVEMENT MANAGEMENT SYSTEMS APPLICATION
  Mehran Kafi Farashah, Asset Management Analyst, York Region; Susan Tighe
14:25 UNDERSTANDING THE PAST AND PREPARING FOR THE FUTURE: A LOOK AT THE CITY OF HAMILTON’S ROAD
  CONDITION/PERFORMANCE
  Leanne Whiteley-Lagace, Pavement Management Team Lead, Infrastructure Management and Pavement
  Engineering, Stantec Consulting Ltd.; Andy Dalziel; Richard Andoga; John Murray
14:50 WHAT DO I HAVE AND WHERE IS IT LOCATED? QUANTIFYING ONTARIO’S MUNICIPAL LANE KILOMETRES
  James Smith, Manager, Member/Technical Services, Ontario Good Roads Association

EXPERIENCE WITH PAVEMENT ME DESIGN (B) (SES)
Room 518A, 5th Floor, PDC
Organized by TAC’s Pavements Standing Committee
Chair: Marta Juhasz, Surfacing Standards Specialist, Surface Engineering and Aggregates, Alberta Transportation
13:45 FIELD INVESTIGATION OF THE EFFECT OF OPERATIONAL SPEED AND LATERAL WHEEL WANDER ON FLEXIBLE
  PAVEMENT MECHANISTIC RESPONSES
  Alireza Bayat, Assistant Professor, University of Alberta; Mohammad Hossein Shafiee; Somayeh Nassiri
14:15 ROLE OF PAVEMENT MANAGEMENT DATA IN THE IMPLEMENTATION OF AASHTO’S PAVEMENT ME DESIGN
  METHODOLOGY
  Jagannath Mallela; Leslie Titus-Glover
FIRST NATIONS INVOLVEMENT IN TRANSPORTATION INFRASTRUCTURE – BUILDING INFRASTRUCTURE, BUILDING CAPACITY (PD)
Room 515AB, 5th Floor, PDC
Organized by TAC’s Environment Council

Chair: Robin Taylor, Senior Environmental Assessment Manager, Hemmera Inc.

Panelists
- WALPOLE ISLAND FIRST NATION AND THE RT. HON. HERB GRAY PARKWAY: A CASE STUDY IN RELATIONSHIP AND CAPACITY BUILDING
  Jared Macbeth, Walpole Island First Nation and Joel Foster, Head, Environmental Section, Border Initiatives Implementation Group, Ministry of Transportation, Ontario
- FIRST NATIONS JOINT VENTURES
  To be confirmed, Aboriginal Relations, Ledcor Construction Limited
- FIRST NATIONS JOINT VENTURES
  Jemma Scoble, Manager, Aboriginal Affairs, Transportation Investment Corporation and Les Antone, Councillor and Elder, Kwantlen First Nation
- FORMATION ET EMPLOYABILITÉ DES AUTOCHTONES EN TRANSPORT (TRAINING AND EMPLOYABILITY FOR FIRST NATIONS IN TRANSPORTATION)
  Josée Arseneault, Head, Coordination of Native Affairs, Archeology and Nordic Development, ministère des Transports du Québec *presented in French

Discussion and Question-and-Answer Period

GEOMETRIC DESIGN – PRESENT CHALLENGES (B) (SES)
Room 513C, 5th Floor, PDC
Organized by TAC’s Geometric Design Standing Committee

Chair: Gregg Cooke, Senior Principal, Transportation, Stantec Consulting Ltd.

13:45  SRB PIE-IX : LES DÉFIS D’INTÉGRATION DU PROJET (SRB PIE-IX: PROJECT INTEGRATION CHALLENGES) *presented in French
  Éric Peissel, Vice President, Transportation - Ontario, WSP Canada Inc.; Suzanne Demeules

14:15  IDENTIFYING AND OVERCOMING BARRIERS TO THE IMPLEMENTATION OF ACTIVE TRANSPORTATION POLICIES
  Nancy Smith Lea, Director, Toronto Centre for Active Transportation and Paul Hess, Associate Professor, Associate Chair and Director, Graduate Programs in Planning, Geography and Program in Planning, University of Toronto

14:45  LES DÉFIS DU RÉAMÉNAGEMENT DU BOULEVARD SAINT-LAURENT ENTRE LES RUES BELLECHASSE ET BERNARD POUR INTÉGRER UN LIEN CYCLABLE MANQUANT (REHABILITATION CHALLENGES OF SAINT-LAURENT BOULEVARD BETWEEN BELLECHASSE AND BERNARD STREETS TO INTEGRATE A MISSING BICYCLE LINK) *presented in French
  Martin Goulet, Safety Engineer, Ville de Montréal

15:15  30 Minute Coffee break

15:45  BUILDING RAPID TRANSIT IN MISSISSAUGA
  Andy Harvey, Director, Engineering and Construction, City of Mississauga

16:15  SHARED SPACES IN CANADA: AN EVALUATION OF THEIR APPLICABILITY USING FOCUS GROUPS
  Jean-François Bruneau, PhD Candidate in Civil Engineering, Polytechnique Montréal; Catherine Morency

GREEN TECHNOLOGIES – INNOVATION TO IMPLEMENTATION AND EVALUATION (B) (SES)
Room 513D, 5th Floor, PDC
Organized by TAC’s Pavements Standing Committee

Chair: Amir Abd El Halim, Principal, Stantec Consulting Ltd.
13:45 EVALUATION OF THE USE OF GREEN PAVEMENT TECHNOLOGIES IN THE REGION OF WATERLOO, ONTARIO
Ludomir Uzarowski, Pavement and Materials Engineer, Golder Associates Ltd.; Mike Halloran; Vimy Henderson; Michael Halloran; Jim Ellerman

14:05 SUSTAINABILITY METRICS OF TWO PAVEMENT RATING SYSTEMS DEVELOPED IN CANADA
Tom Kazmierowski, Senior Consultant, Golder Associates Ltd.; Michael Navarra

14:25 SUCCESSFUL IMPLEMENTATION OF WARM MIX ASPHALT IN ONTARIO
Seyed Tabib, Senior Bituminous Engineer, Ontario Ministry of Transportation; Pamela Marks; Imran Bashir; Alexander Brown

14:45 QUALITY METRICS FOR RECYCLED CONCRETE AGGREGATES IN MUNICIPAL ROADS
Steven Jagdat, Geotechnical Engineer, Golder Associates Ltd.; Tom Kazmierowski; Trevor Moore; Leonard Ng

HOW TO CONDUCT AN IN-SERVICE ROAD SAFETY REVIEW PART II (WS)
Room 521ABC, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee

This workshop will present operational reviews conducted in the field at various intersections; raise awareness of road safety engineering issues, solutions and analytical techniques and identify opportunities to improve the safety performance of transportation infrastructure on a daily basis. Participants will be able to apply their road safety knowledge to real-life scenarios.

A site visit is included in this workshop. Delegates must attend both parts I and II.

Co-Chairs: Pedram Izadpanah, Associate Partner, Senior Project Manager, Traffic Engineering, CIMA+ and Steven Melton, General Manager, Roadway Engineering Manager, ISL Engineering and Land Services Ltd.

The workshop will be hosted by three instructors on the following topics:
1. ROAD SAFETY PROCESS: Brian Malone, CIMA+
2. HUMAN FACTORS: Tom Smahel, Human Factor North
3. ECONOMIC ANALYSIS: Abdelaziz Manar, Ville de Montréal *presented in French

INNOVATIONS IN THE COLLECTION OF DATA FOR THE MOVEMENT OF PEOPLE (PD)
Room 516A, 5th Floor, PDC
Organized by TAC’s Transportation Planning and Research Standing Committee of the Urban Transportation Council

Chair: Lisa Salsberg, Manager, Strategic Policy and Systems Planning, Metrolinx

Panelists
- To be confirmed

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 15:15

ROAD CONSTRUCTION CONTRACTS (SES)
Room 518B, 5th Floor, PDC
Organized by TAC’s Maintenance and Construction Standing Committee

Partner: SNC-Lavalin Inc.

Chair: Larry Halyko, Director, Contract Services, Manitoba Infrastructure and Transportation

13:45 CANADIAN REVIEW OF CONTRACT METHODOLOGY AND COSTS FOR ASPHALT CONCRETE PAVING
Larry Halayko, Director of Contract Services, Manitoba Infrastructure and Transportation

14:15 DESIGN-BUILD OF A MAJOR TRANSPORTATION PROJECT IN YORK REGION
Leonard Ng, Design and Construction Lead, Rapid Transit Liaison, York Region; Paul May; Mark Popik
14:45  THE NEW APPROACH TO ROAD CONSTRUCTION PROJECTS USING THE DESIGN-BUILD PROCUREMENT METHOD -
498TH AVENUE EXTENSION / HWY. 2 INTERCHANGE DESIGN-BUILD PROJECT
Greg Bulych, Senior Transportation Engineer, Clifton Associates Ltd.

THE ROLE OF HUMAN FACTORS IN ROAD SAFETY (SES)
Room 518C, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee

Chair: Peter Park, Associate Professor, Civil and Geological Engineering, University of Saskatchewan

13:45  HUMAN FACTORS ASSESSMENT OF DISTRACTION, WORKLOAD AND TRAFFIC SAFETY IN RELATION TO BUS
OPERATOR WORKLOAD DURING MANUAL STOP ANNOUNCEMENTS
Thomas Smahel, Principal Consultant, Human Factors North Inc.; Alison Smiley

14:15  CASE STUDIES IN INTEGRATING TRANSPORTATION, LAND USE AND HEALTH OBJECTIVES IN ROAD DESIGN
Gayle Bursey, Director, Chronic Disease and Injury Prevention, Region of Peel; Jason Meliefste; Sabbir Saiyed; Brent Moloughney

14:45  GUIDING PRINCIPLES FOR DEVELOPING DIGITAL AND PROJECTED ADVERTISING DISPLAY REGULATIONS
Garreth Rempel, Principal and Founding Partner, MORR Transportation Consulting Ltd.; Jeannette Montufar; Robert Dewar; Gerry Forbes

15:15  30 Minute coffee Break

15:45  HUMAN FACTORS EVALUATION OF NEW PICTOGRAPH-BASED MESSAGES FOR BILINGUAL VARIABLE MESSAGE
SIGNS
Alison Smiley, President, Human Factors North Inc.; Thomas Smahel; S. Erwin

16:15  RADAR ACTIVATED LED STOP SIGNS IN RURAL SETTINGS - PILOT PROJECT IN SASKATCHEWAN
Charlotte Brockman, Operations Project Engineer, Saskatchewan Highways and Infrastructure; Jennifer Fertuck; Allan Churko; Jordan Graham

16:45  SRB PIE-IX - LES IMPACTS DU CONCEPT RETENU SUR LA SÉCURITÉ ROUTIÈRE (SRB PIE-IX – IMPACTS OF ROAD
SAFETY CONCEPT) *presented in French
Suzanne Demeules, Engineer, Principal Director, Traffic Engineering, CIMA+

SEA TRANSPORT – TRADE AND ENVIRONMENT (PD)
Room 514AB, 5th Floor, PDC
Organized by the ministère des Transports du Québec

Chair: Josée Hallé, Director, Sea, Air and Rail Transport, ministère des Transports du Québec

Note: All of the following presentations will be done in French.

Panelists
- IMPACTS DE L’ABOLITION DU DROIT DE DOUANE À L’IMPORTATION DE NAVIRES (IMPACTS OF CUSTOMS DUTY
  ANNULMENT TO SHIP IMPORTS)
  Emmanuelle Guy, Professor and Research and Sea Transport Chair, Université du Québec à Rimouski (UQAR)
- STRATÉGIE MARTIME DU QUÉBEC (QUEBEC SEA STRATEGY)
  Georges Farrah, Associate Corporate Secretary to the Executive Council, Sea Strategy, Quebec Government
- CARGOM : AU COEUR DE LA CHAÎNE LOGISTIQUE (CARGOM : THE HEART OF THE LOGISTICS CHAIN)
  Mathieu Charbonneau, Executive Director, Cargo Montreal
- COMITÉ DE CONCERTATION NAVIGATION (CCN) ET STRATÉGIE DE NAVIGATION DURABLE (SND) (NAVIGATION
  CONCERTATION COMMITTEE (NCC) AND SUSTAINABLE NAVIGATION STRATEGY (SNS))
  Marie-Ayk Côté, Strategic Communications Manager, Transport Canada and Ève Joseph, Transport Analyst, ministère des Transports du Québec
- ALLIANCE VERTE : PROGRAMME ENVIRONNEMENTAL VOLONTAIRE POUR L’INDUSTRIE MARINE (GREEN MARINE:
  A VOLUNTARY ENVIRONMENTAL PROGRAM FOR THE MARITIME INDUSTRY)
  David Bolduc, Executive Director, Alliance verte
• PROGRAMMES D’AIDE DU MTQ EN TRANSPORT MARITIME, AÉRIEN ET FERROVIAIRE (MTQ ASSISTANCE PROGRAMS, SEA, AIR AND RAIL TRANSPORT)

Pierre Brochu, Analyst and Head of Assistance Programs, Sea, Air and Rail Transport, ministère des Transports du Québec

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 15:15

SPECIAL EVENT AND INCIDENT MANAGEMENT CASE STUDIES AND BEST PRACTICES (SES)
Room 515C, 5th Floor, PDC
Organized by TAC’s Traffic and Operations Management Standing Committee

Chair: Cathy Robertson, Director, Roads and Parks Maintenance, City of Burlington

13:45 WORK-ZONE TRAFFIC OPERATIONS AND CAPACITY
Rob Pringle, Senior Project Manager, Associate Partner, MMM Group Limited and Goran Nikolic, Senior Project Engineer, Ministry of Transportation, Ontario; Kevin Bragg; Diego Mendoza

14:05 BUILDING TRANSIT RESILIENCE IN TORONTO: A CASE STUDY APPROACH TO EXPLORING THE IMPACTS OF INCIDENTS ON URBAN PUBLIC TRANSIT SYSTEMS
Jenessa Man, Transportation Consultant, Arup; Aarshabh Misra; Amer Shalaby

14:30 INNOVATIVE TRAFFIC MANAGEMENT OF THE 2013 CANADIAN OPEN
Simon Tam, Manager, Traffic Operations, Town of Oakville

14:50 LONG-TERM URBAN ROAD RESTRICTIONS DURING SPECIAL EVENTS
Kevin Phillips, Head, Municipal Transportation; URS Canada Inc.; Tia Nguyen

TOMORROW’S TRAFFIC MANAGEMENT, ITS SOLUTIONS AND CONNECTED VEHICLES (SES)
Room 519A, 5th Floor, PDC
Organized by TAC’s Traffic and Operations Management Standing Committee

Partner: Welton Parent Inc.

Chair: Gord Elenko, Manager, Traffic Engineering, City of Calgary

13:45 LA MARCHE VERS LA MOBILITÉ INTELLIGENTE (THE WALK TOWARDS INTELLIGENT MOBILITY) *presented in French
Jocelyn Grondines, Studies Director, Société de transport de Montréal (STM)

14:15 LOOKING OUT FOR YOU - CITY OF TORONTO’S DEPLOYMENT PLAN FOR ARTERIAL TRAFFIC CAMERAS
Perry Craig, Senior Principal, Parsons and Linda Lee, Senior Engineer, Urban Traffic Control Systems, City of Toronto; Rajnath Bissessar

14:45 SAN JOSE AUTOMATED TRANSIT NETWORK FEASIBILITY STUDY
Gary Hsueh, Senior Transportation Planner, Arup Canada Inc.

15:15 30 Minute Coffee Break

15:45 TELECOMMUNICATION NETWORK FOR INTELLIGENT TRANSPORTATION SYSTEMS
Thi Mai Thanh Do, Engineer, Ville de Montréal

16:15 DYNAMIC TOLLING OF HOT LANES THROUGH SIMULATION OF EXPECTED TRAFFIC CONDITIONS
Rob Pringle, Senior Project Manager, Associate Partner, MMM Group Limited and Goran Nikolic, Senior Project Engineer, Ministry of Transportation, Ontario; Celine Jacob; Natalie Mendonca; Mark Bekkers; Alexandre Torday; Paolo Rinelli

16:45 DESIGNING A WORLD WITH DRIVERLESS CARS
John Eddy, Principal, Arup Canada Inc.; Gary Hsueh
TOMORROW’S TRANSPORTATIONS (PD)
Room 516D, 5th Floor, PDC
Organized by TAC’s Climate Change Task Force

Chair: Julie Guicheteau, Engineer, Environment Division, Ville de Montréal

Panelists
13:45 ELECTRIC VEHICLES AND ACTIVE TRANSPORTATION - A PLAN FOR A GREENER ONTARIO
Kimberly Scratch, Senior Policy Advisor, Ontario Ministry of Transportation

14:15 THE ROLE OF TRANSPORTATION AGENCIES IN ELECTRIC VEHICLE DEPLOYMENT
Gina Campoli, Environmental Policy Manager, Planning and Intermodal Development Division, Vermont Agency of Transportation Policy

14:45 CLEAN ENERGY VEHICLE PROGRAM
Christina Ianniciello, Director, Communities and Transportation, British Columbia Ministry of Energy and Mines

15:15 30 MINUTE COFFEE BREAK

15:45 LES TECHNOLOGIES ÉMERGENTES ET L’ÉLECTRIFICATION DES TRANSPORTS AU QUÉBEC (ALTERNATIVE FUEL VEHICLES AND TRANSPORTATION ELECTRIFICATION IN QUEBEC) *presented in French
Martin Hotte, Senior Transportation and Climate Change Analyst, ministère des Transports du Québec

16:15 RÉDUCTION DES GES ET AMÉLIORATION DE L’EFFICACITÉ ÉNERGÉTIQUE DU TRANSPORT ROUTIER DES MARCHANDISES, BILAN ET PERSPECTIVES (REDUCING GHG AND IMPROVING ENERGY EFFICIENCY IN MOTOR FREIGHT TRANSPORTATION - REVIEW AND PROSPECTS) *presented in French
Alain Lemieux, Economist, Road Transportation of Goods, ministère des Transports du Québec

16:45 PAST, PRESENT AND FUTURE OF CANADIAN TUNNELS FROM THE PERSPECTIVE OF LIFE-CYCLE CIVIL ENGINEERING
Stefan Zmigrodzki, Partner, Director, Structures - Special Projects, CIMA + and Hubert Dubois, Associate Partner, Senior Project Manager, Bridges and Civil Works, Transportation, CIMA +

~ TUESDAY, SEPTEMBER 30 – 15:45-17:15 ~

ROAD CONSTRUCTION INNOVATION (SES)
Room 518B, 5th Floor, PDC
Organized by TAC’s Maintenance and Construction Standing Committee

Chair: Hector Moreno, Manager, Road Operation, City of Toronto

15:45 ADOPTING NETWORK LEVEL PREVENTATIVE MAINTENANCE IN SASKATCHEWAN
Raymond J. Gerke, Chief Executive Officer, Vemax Management Inc.; Nichole Andre

16:15 BORROWS – CREATING MORE THAN JUST HOLES IN THE GROUND; CONSTRUCTED WETLAND DEVELOPMENT TOOLS AND BANKING WETLAND HABITAT FOR THE FUTURE
Mark Svenson, Provincial Transportation Environmental Coordinator, Alberta Transportation

16:45 SUCCESSFUL IMPLEMENTATION OF A GRAVITY PIPE SUSTAINABILITY PROGRAM IN ONTARIO
Art Groenveld, Senior Engineer, Drainage Design, Ministry of Transportation of Ontario

~ WEDNESDAY, OCTOBER 1 – 08:30-12:00 ~

2014 TAC SUSTAINABLE URBAN TRANSPORTATION AWARD NOMINATIONS (SES)
Room 515C, 5th Floor, PDC
Organized by TAC’s Sustainable Transportation Standing Committee

Chair: Dean Cooper, Principal, Stantec Consulting Ltd.
TAC members that have made an exemplary contribution to sustainable urban transportation are eligible to receive the Association’s annual Sustainable Urban Transportation Award.

A selection committee reviewed the nominations received for the 2014 award and recommended a winner to TAC’s Board of Directors. The award was conferred at the Monday Lunch on September 29. Nominees have been invited to give presentations on their respective projects at this session.

08:30  STEP FORWARD: HAMILTON PEDESTRIAN MOBILITY PLAN
Brian Malone, Vice President, Transportation, CIMA +

08:55  THE ROCKY MOUNTAIN LEGACY TRAIL – REDEFINING INTERCOMMUNITY CONNECTIONS
Darin Langhorst, Senior Project Manager, McElhanney Consulting Services Ltd. and Town of Canmore on behalf of the Bow Corridor Regional Mobility Partnership

09:20  TRANSPORTATION MASTER PLAN 2013
Brian Hollingworth, Director and Transportation Planner, IBI Group for the City of Ottawa

09:45  THE AMT VELOSTATION
Floraine Vassiere, Studies Officer, Strategic Planning, Agence métropolitaine de transport

10:10  20 Minute Coffee Break

10:30  LEGO VIDEOS FOR EDUCATING ROAD USERS ABOUT BICYCLE INFRASTRUCTURE
Tyler Golly, General Supervisor, Sustainable Transportation, City of Edmonton

10:50  VELOCE II - AN ACTIVE TRANSPORTATION STRATEGY FOR THE PROVINCE OF QUEBEC
Marc Panneton, Urban Planner, ministère des transports du Québec

11:20  VIVANEXT - HIGHWAY 7 EAST [H3] BRT DEDICATED LANES
Paul May, Director, Infrastructure Planning, York Region Rapid Transit Corporation

ACCESSIBLE CITIES: UNDERSTANDING NEEDS FOR PEOPLE WITH DISABILITIES (WS)
Room 521ABC, 5th Floor, PDC
Organized by la Ville de Montréal

This workshop will describe the reality of people with reduced mobility, specific needs of people with visual and physical disabilities, as well as limitations linked with age. Identified strategies for people with reduced mobility, gains representing universal accessibility for all types of pedestrians, adapted accessibility criteria and industry best design practices will also be presented.

Co-Chairs and Presenters: Pierre-Étienne Gendron-Landry, Urban Design Advisor, Department of Transportation, Ville de Montréal and Sophie Lanctôt, General Director, Société Logique

Workshop includes a 30 minute coffee break at 10:00

ENVIRONMENTAL ASSESSMENT AND PROTECTION – HOW WE GOT TO WHERE WE ARE TODAY (SES)
Room 518A, 5th Floor, PDC
Organized by TAC’s Environment Council

Chair: Allan Widger, President, Allan Widger Consulting Corp.

08:30  10 YEARS LATER: QUEBEC’S VEGETATION CONTROL HIGHWAY APPROACH
Yves Bédard, Biologist, ministère des Transports du Québec

09:00  BILAN ENVIRONNEMENTAL ET L’ÉTAT DES CONNAISSANCES DES PRODUITS DE MARQUAGE ROUTIER (ENVIRONMENTAL STATEMENT AND STATUS OF ROAD MARKING PRODUCT INFORMATION) *presented in French
Michel Tremblay, Engineer, ministère des Transports du Québec
09:30  2ND CONCESSION WIDENING AND INFRASTRUCTURE SERVICING PROJECT - FROM ENVIRONMENTAL ASSESSMENT TO CONSTRUCTION: A PROPONENT’S PERSPECTIVE ON THE BENEFITS OF EARLY AND CONSISTENT STAKEHOLDER CONSULTATION FOR IMPROVING MOBILITY FOR ALL CORRIDOR USERS WITH AN HISTORICAL PERSPECTIVE ON CYCLING FACILITIES
Mark Nykoluk, Senior Project Manager, Regional Municipality of York; Martin Scott

10:00  30 Minute Coffee Break

10:30  EVOLUTION OF AN INNOVATIVE FISH LADDER DESIGN TO ADDRESS ISSUES OF PERCHED CULVERTS
Jason Duguay, MAsc Student, Université de Sherbrooke; Jay Lacey; Ken Hannaford; Dave Penny

11:00  REDUCING WILDLIFE COLLISIONS: WHAT IS WORKING IN NORTHEASTERN ONTARIO
Andrew Healy, Environmental Planner, Ontario Ministry of Transportation; Kari E. Gunson

11:30  LESSONS LEARNED: TERRY FOX DRIVE WILDLIFE GUIDE SYSTEM INTENDED TO REDUCE ROAD KILLS AND AID THE CONSERVATION OF BLANDING’S TURTLE (EMYDOIDEA BLANDINGII)
Shawn Taylor, Partner, Dillon Consulting Limited; Nicholas Stow; Caleb Hasler; Kevin Robinson

CANADIAN EXPERIENCE, PERFORMANCE AND BEST PRACTICES WITH RESPECT TO P3 ROADWAY PROJECTS (PD)
Room 516D, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee
Chair: Stella Madsen, Manager of Transportation, Associated Engineering

Panelists
- PPP : MAINTENANT VOUS SAVEZ (PPP: NOW YOU KNOW) *presented in French
  Sandra Sultana, Director, Strategic Projects and P3 Governance, ministère des Transports du Québec
- A25 – THE SMART LINK
  Daniel Toutant, President of COSIME and President and Chief Executive Officer of Concession A25
- FORGET THE MIDDLE, IT’S THE ENDS THAT MATTER
  Blake Wellner, Senior Consultant and Partner, Opus International Consultants Ltd.
- BEGIN AS YOU WISH TO CONTINUE
  Bruce McAllister, Director, P3 Operations and Procurement, British Columbia Transportation and Infrastructure, Infrastructure and Major Projects
- WHO IS MANAGING THE PAVEMENT?
  Chuck McMillan, Director, Surface Engineering, Alberta Transportation

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00

GEOMETRIC DESIGN – LEARNING FROM THE PAST (SES)
Room 513C, 5th Floor, PDC
Organized by TAC’s Geometric Design Standing Committee
Chair: Eric Christiansen, Director of Highway Planning and Design, Manitoba Infrastructure and Transportation

08:30  THE EVOLUTION OF URBAN ROADWAY DESIGN APPROACHES
Hassan Shaheen, General Manager, Transportation Planning, ISL Engineering and Land Services Ltd.

09:00  EVOLUTION OF INTERCHANGE DESIGN IN NORTH AMERICA
John Morrall, President, Canadian Highways Institute Ltd. and Joel Leisch, Consultant, Transportation Planning/Engineering Consultant

09:30  GEOMETRIC DESIGN GUIDE IN CANADA – THE FIRST 100 YEARS
Keith Boddy, Senior Highway Design Engineer, Nova Scotia Transportation and Infrastructure Renewal

10:00  30 Minute Coffee Break
10:30 AN EXPLORATION OF THE PAST, PRESENT, AND FUTURE OF BRITISH COLUMBIA’S HIGHWAYS
Grant Ngieng, Project Engineer, ISL Engineering and Land Services Ltd. and Roy Symons, Manager, Transportation Planning, ISL Engineering and Land Services Ltd.; Zane Sloan; Jon Conquist

11:00 DESIGN VEHICLES: FROM TURNING TEMPLATES TO SMART SYSTEMS
Joel Leisch, Consultant, Transportation Planning/Engineering Consultant and Milton Carrasco, President and Chief Executive Officer, Transsoft Solutions Inc.

11:30 TWO PROJECTS – DIFFERENT ERAS; DIFFERENT TOOLS; SIMILAR RESULTS
Roy Biller, Manager, Highway Design and Construction, ISL Engineering and Land Services Ltd.

GOODS MOVEMENT – PAST, PRESENT AND FUTURE (A) (SES)
Room 513D, 5th Floor, PDC
Organized by TAC’s Urban Transportation Council and Transportation Planning and Research Standing Committee

Chair: Sabbir Saiyed, Manager, Transportation System Planning, Public Works, Region of Peel

08:30 PARTNERSHIPS AND OPPORTUNITIES: STRENGTHENING THE CAPACITY FOR FREIGHT PLANNING IN ONTARIO
Anthony Caruso, Advisor, Metrolinx

09:00 GUIDELINES FOR CREATING SAFE AND EFFICIENT FREIGHT-SUPPORTIVE COMMUNITIES
Jim Gough, Senior Project Manager, MMM Group Limited; Brett Sears

09:30 LOOKING TO THE FUTURE – A GOODS MOVEMENT STRATEGY FOR THE CITY OF EDMONTON
Rhonda Toohey, Acting Manager of Transportation Planning, City of Edmonton; Andrew Anderson; Howaida Hassan

10:00 30 Minute Coffee Break

10:30 MEETING THE NEEDS OF THE ALBERTA OIL SANDS INDUSTRY - THE EXPANSION OF THE SHELL ALBIAN SANDS AERODROME
Dean Reidt, Manager, Transportation, Associated Engineering

11:00 PRACTICAL CONSIDERATIONS IN THE ACCOMMODATION OF Oversized loads WITHIN A MODERN ROUNDABOUT
Dan Dmytryshyn, Project Manager, CIMA +

11:30 SUPPORTING HIGHWAY INFRASTRUCTURE THROUGH THE USE OF GREEN STEEPENED SLOPES AS AN ENVIRONMENTALLY SUSTAINABLE METHOD OF CONSTRUCTION ON THE CANADIAN LANDSCAPE
Dan MacDonald, Division Manager - MSE Walls/Slopes, Nilex Inc.

ROAD CONSTRUCTION HISTORY (SES)
Room 513B, 5th Floor, PDC
Organized by TAC’s Maintenance and Construction Standing Committee

Chair: Robert Shamess, Principal Project Manager, Hatch Mott MacDonald

Denis Thebeau, Engineer, ministère des Transports du Québec; Marina Beaudoin; Julie Roby

09:00 DESIGN-BUILD TRANSPORTATION HISTORY - MONTREAL REGION – 1814 TO 2014
Dave Dulay, Senior Project Manager, McElhanney Consulting Services Ltd.; Dave Fraser

09:30 THE TRANS-CANADA HIGHWAY – A MAJOR LINK IN CANADA’S TRANSPORTATION SYSTEM
Donaldson MacLeod, Chief Executive Officer, Donaldson MacLeod Consulting
CANADIAN PERSPECTIVE OF INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND ROAD SAFETY (PD)
Room 515AB, 5th Floor, PDC
Organized by TAC's Road Safety Standing Committee
Chair: Peter Park, Associate Professor, Civil and Geological Engineering, University of Saskatchewan

Panelists
- Tarek Sayed, Professor, Department of Civil Engineering, University of British Columbia
- REVIEW OF DRIVER ASSISTANCE SYSTEMS FOR SPEED CONTROL AND SAFETY
  Nicolas Saunier, Associate Professor, Department of Civil, Geological and Mining Engineering, Polytechnique Montréal

Discussion and Question-and-Answer Period

SNAPSHOTS FROM THE FUTURE (PD)
Room 514AB, 5th Floor, PDC
Organized by TAC’s Education & Human Resource Development Council
Partner: Centre for Pavement and Transportation Technology, University of Waterloo
Chair: Heather Crew, Manager of Professional Development and Training, Ontario Good Roads Association

Panelists
- To be confirmed

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00

STRUCTURES (B) (SES)
Room 513A, 5th Floor, PDC
Organized by TAC’s Structures Standing Committee
Chair: Ruth Eden, Director, Structures Design and Construction Branch, Water Management and Structures, Manitoba Infrastructure and Transportation

08:30  CABLE IMPREGNATION FOR POST-TENSION GROUTING PROBLEMS
  David Whitmore, Cable Impregnation for Post-Tension Grouting Problems, Vector Corrosion Technologies; Ivan Lasa

08:55  DESIGN OF THE TAPPAN ZEE CABLE-STAYED MAIN SPAN
  Christopher Scollard, Chief Project Manager, Buckland & Taylor Ltd.

09:20  EXTENDING THE LIFE OF THE ANGUS L. MACDONALD SUSPENSION BRIDGE
  Dusan Radjoevic, Chief Specialist, Buckland & Taylor Ltd.; Peter Buckland; Keith Kirkwood; Jon Eppell

09:45  ÉRECTION D’UNE CHARPENTE D’ACIER PAR LA MÉTHODE DE LANCEMENT (ERECTION OF A STEEL STRUCTURE USING THE LAUNCHING METHOD) *presented in French
  Jacques Blouin, Director, Bridge Engineering, Quebec, WSP; Stephan Kellner

10:10  20 Minute Coffee Break

10:30  LIGHTWEIGHT FIBERGLASS COMPOSITE BRIDGE PANEL SYSTEM
  Crawford Dewar, Lightweight Fiberglass Composite Bridge Panel System, Guardian Bridge Rapid Construction Inc.

11:00  LONG-TERM PERFORMANCE OF ELECTROCHEMICAL CHLORIDE EXTRACTION AND CATHODIC PROTECTION OF BRIDGE SUBSTRUCTURES: HIGHWAY 75 / 100 INTERCHANGE CASE STUDY
  David Whitmore, Cable Impregnation for Post-Tension Grouting Problems, Vector Corrosion Technologies; Ruth Eden; Felix Sandron
11:30 STATE-OF-THE-ART BRIDGE DECK CONDITION EVALUATION AND MANAGEMENT USING GROUND PENETRATING RADAR
Christopher Barnes, Senior Materials Engineer, AMEC Environment & Infrastructure

TRANSFORMING INFRASTRUCTURE OF THE PAST TO ACCOMMODATE TRAFFIC OF THE FUTURE (SES)
Room 518B, 5th Floor, PDC
Organized by TAC’s Traffic and Operations Management Standing Committee

Chair: Tom O’Connell, Manager, Operational Renewal, City of Regina

08:30 DESIGNING GREAT STREETS: BUILDING ROADS THAT BUILD COMMUNITY
Angela Gibson, Head, Policy and Research, Regional Municipality of York

09:00 HAMPTON ROAD TRANSFORMATION
Peter Allaby, Transportation Lead, Exp Services Inc.; Brett McLean

09:30 ISSUES AND CHALLENGES OF “COMPLETE STREETS” IMPLEMENTATION ON A BRIDGE STRUCTURE AND ITS APPROACHES
Manoj Dilwaria, Principal and Technical Director, Parsons; Nick Palomba

10:00 30 Minute Coffee Break

10:30 MOVING (MORE) PEOPLE SAFELY: EXAMINING THE SAFETY IMPACTS OF HOV LANES
Matt Colwill, Associate, IBI Group

11:00 REVIEWING POTENTIAL ONE-WAY STREET CONVERSIONS IN ESTABLISHED NEIGHBOURHOODS
Jason Gilham, Traffic Technologist, Parsons

VULNERABILITY OF TRANSPORTATION INFRASTRUCTURES IN QUEBEC, ADAPTATION TO THE IMPACTS OF CLIMATE CHANGE, AND HIGHLIGHTS OF THE IPCC 5TH ASSESSMENT REPORT (PD)
Room 516A, 5th Floor, PDC
Organized by TAC’s Climate Change Task Force

Chair: Anne-Marie Leclerc, Assistant Deputy Minister Infrastructures and Technologies, ministère des Transports du Québec

Panelists
- PRESENTATION OF THE HIGHLIGHTS OF THE IPCC 5TH ASSESSMENT REPORT AND CURRENT AND FUTURE ISSUES IN ADAPTATION
  Alain Bourque, Executive Director, Ouranos
- VULNERABILITY OF EASTERN QUEBEC ROAD INFRASTRUCTURES TO EROSION AND COASTAL SUBMERSION IN A CLIMATE CHANGE CONTEXT
  Pascal Bernatchez, Professor, UQAR, Chair, Coastal Geoscience
- THE DEVELOPMENT OF A HYDROGEOLOGIC METHOD FOR WATERCOURSE FERRY RIGHTS IN THE BAS-SAINT-LAURENT AND GASPEISIE REGIONS IN A CLIMATE CHANGE CONTEXT
  Thomas Buffin-Bélanger, Professor, UQAR, Director of the River Geomorphology and Dynamics Research Laboratory
- WAVE IMPACT MODELLING ON A VERTICAL WALL
  Janette Frandsen, Research Chair in Coastal and Fluvial Engineering, INRS-ETE, Research Chair in Coastal Engineering
- IMPACTS OF CLIMATE CHANGE ON QUEBEC ROAD NETWORK PAVEMENTS
  Guy Doré, Professor, Technical Director of Graduate Studies, NSERC Industrial Chair (i3C), Université Laval, Civil Engineering

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00
WHAT DOES TOMORROW HOLD? FINANCING TRANSPORTATION (PD)
Room 514C, 5th Floor, PDC
Organized by TAC’s Sustainable Transportation Standing Committee

Chair: Geoff Noxon, President, Noxon Associates Limited

Panelists

• WHAT DOES TOMORROW HOLD? ACTIVE TRANSPORTATION
  Jean-François Pronovost, Vice President, Development and Public Affairs, Vélo-Québec
• WHAT DOES TOMORROW HOLD? TECHNICAL INNOVATIONS IN TRANSPORTATION
  Michael de Santis, Chair, ITS Canada
• WHAT DOES TOMORROW HOLD? FINANCES AND TRANSPORTATION
  Mario Iacobacci, Director, Economics, AECOM
• WHAT DOES TOMORROW HOLD? TRANSPORTATION AND PUBLIC HEALTH
  Gayle Bursey, Director, Chronic Disease and Injury Prevention, Health Services, Region of Peel
• MEET TODAY TO ENSURE THE SUCCESS OF TOMORROW’S HUB
  Mathieu Charbonneau, Executive Director, Cargo Montreal

Discussion and Question-and-Answer Period
Panel includes a 30 minute coffee break at 10:00

WORK ZONE SAFETY – EFFECTIVE MANAGEMENT PRACTICES (SES)
Room 518C, 5th Floor, PDC
Organized by TAC’s Road Safety Standing Committee

Chair: Raheem Dilgir, President, TranSafe Consulting Ltd.

08:30 ‘SAFETY EDGE’ FOR IMPROVED ROAD SAFETY AND PAVEMENT PERFORMANCE
  Raymond Lau, Project Manager, Transportation Design and Construction, Regional Municipality of Halton; Mark Popik

09:00 PRATIQUES, RÉFLEXIONS ET RÉSULTATS EN MATIÈRE DE SÉCURITÉ ROUTIÈRE DANS LES ZONES DE TRAVAUX ROUTIERS AU QUÉBEC (PRACTICES, REFLEXIONS AND RESULTS IN ROAD SECURITY WORK ZONES IN QUEBEC)
*presented in French
  Kate De Blois, Engineer, ministère des Transports du Québec

09:30 SASKATCHEWAN WORK ZONE ENHANCEMENTS
  Maria Muhr, Sr. Traffic Engineer, Saskatchewan Ministry of Highways and Infrastructure; Sukhy Kent

LOW VOLUME ROAD CONSTRUCTION (SES)
Room 513B, 5th Floor, PDC
Organized by TAC’s Maintenance and Construction Standing Committee

Chair: Jason McNeil, Transportation Engineer, Clifton Associates Ltd.

10:30 NADAHINI CREEK GEOSYNTHETIC REINFORCED SOIL INTEGRATED BRIDGE SYSTEM
  Muhammad Idrees, Manager, Geotechnical and Materials Program, Transportation Engineering Branch; Luke Wadey

11:00 OPTIMIZING HAUL ROAD DESIGN – A FUTURE CHALLENGE FOR RESOURCE DEVELOPMENT IN NORTHERN CANADA
  Robert Douglas, Senior Consultant, Low-Volume Roads, Golder Associates Ltd.; Karl Lawrence

11:30 USE OF RIGHTS-OF-WAY ON LOW VOLUME ROADS FOR AGRICULTURE
  Allan Churko, Principal Specialist, Tetra Tech EBA; Tracy Danielson; Tracey Leibe
2014 TAC ENVIRONMENTAL ACHIEVEMENT AWARD NOMINATIONS (SES)
Room 515C, 5th Floor, PDC
Organized by TAC’s Environment Council

TAC members that have made an exemplary contribution to the protection and enhancement of the environment or that have taken a particularly innovative approach to solving an environmental problem are eligible to receive the Association’s annual Environmental Achievement Award.

A selection committee reviewed the nominations received for the 2014 award and recommended a winner to TAC’s Board of Directors. The award was conferred at the Monday Lunch on September 29. Nominees have been invited to give presentations on their respective projects at this session.

Chair: Roger Pottle, Senior Environmental Planner, Highway Design and Construction Division, Newfoundland and Labrador Transportation and Works

13:45 QUAND L’ENVIRONNEMENT ET LE GÉNIE ROUTIER S’ASSOCIENT – RÉAMÉNAGEMENT DE LA ROUTE 352 À SAINT-ADELPHÉ (ROADWAY ENGINEERING WITH AN ENVIRONMENTAL FOCUS RECONSTRUCTION OF ROUTE 352 IN SAINT-ADELPHÉ)*
presented in French
Marc-André Larose, Biologist, Service des inventaires et du Plan de la Direction de la Mauricie – Centre-du-Québec, ministère des Transports du Québec

14:15 KING ROAD/CN RAIL GRADE SEPARATION, BURLINGTON, ONTARIO
David Sinke, Principal, Transportation Engineering, AMEC for Hatch Mott MacDonald and AMEC Environment & Infrastructure

14:45 SOUTH FRASER PERIMETER ROAD: INNOVATIVE APPROACHES TO CREATING LAND-USE COMPATIBILITY
Robin Taylor, Senior Environmental Assessment Manager, Hemmera Inc. for Transport Canada and British Columbia Transportation and Infrastructure

15:15 30 Minute Coffee Break

15:45 CORRECTION D’UNE COURBE SUR LE CHEMIN DE WARWICK ET RECONSTRUCTION DU PONT ENJAMBANT LA RIVIÈRE DES ROSIERS À TINGWICK (P-17297) (RECONNECTING FISH POPULATIONS AS PART OF A ROAD IMPROVEMENT PROJECT IN TINGWICK, QUEBEC) *
presented in French
Jean-Philippe Bibeau, Water and Sanitation Technician, Service des inventaires et du Plan de la Direction de la Mauricie – Centre-du-Québec, ministère des Transports du Québec

16:15 TERRY FOX DRIVE, MARCH ROAD TO KANATA AVENUE, OTTAWA: ROAD ECOLOGY DESIGN CONSIDERATIONS
Shawn Taylor, Partner, Dillon Consulting and City of Ottawa

DESIGN, CONSTRUCTION AND MAINTENANCE OF PERMEABLE PAVEMENTS (SES)
Room 513B, 5th Floor, PDC
Organized by TAC’s Pavements Standing Committee

Chair: Sherry Sullivan, Director, Transportation and Built Environment, Cement Association of Canada

13:45 DEVELOPMENT OF AN ASCE STANDARD FOR PERMEABLE INTERLOCKING CONCRETE PAVEMENT
David Hein, Vice President, Transportation, Applied Research Associates, Inc.

14:15 DEVELOPMENT OF THE CANADIAN DESIGN, CONSTRUCTION AND MAINTENANCE GUIDE FOR PERVIOUS CONCRETE PAVEMENT
Susan Tighe, Professor and Canada Research Chair, University of Waterloo; Vimy Henderson; Rico Fung

14:45 LONG TERM DRAINAGE PERFORMANCE OF PERVIOUS CONCRETE PAVEMENTS IN CANADA
Sonia Rahman, MASc Candidate, University of Waterloo; Vimy Henderson; Susan Tighe; Rico Fung; Norman W. McLeod

15:15 30 Minute Coffee Break
15:45 PERMEABLE PAVEMENT DESIGN AND CONSTRUCTION CASE STUDIES IN NORTH AMERICA
Aleks Kivi, Pavement Engineer, Applied Research Associates, Inc.; David Hein

16:15 PERMEABLE PAVEMENTS FOR ROADWAY SHOULDERS
David Hein, Vice President, Transportation, Applied Research Associates, Inc.; Lori Schaus

EMERGENCY REPAIR AND RECONSTRUCTION OF TRANSPORTATION INFRASTRUCTURE (SES)
Room 519A, 5th Floor, PDC
Organized by TAC’s Soils and Materials Standing Committee

Chair: Daryl Nixon, Principal Specialist – Pavements, Prairie Region, Tetra Tech

13:45 AKAMINA PARKWAY RECONSTRUCTION AND HAZARD MITIGATION
Scott Martin, Vice President, Pacific Engineering, Tetra Tech EBA; Brian Cutts; Tara Hirsekorn; Jamie Sterling; Joel Kliner; Charles Hunt

14:15 HIGHWAY 40 SOUTH OF KANANASKIS LAKES – EPICENTRE OF THE STORM
Des Kernahan, Senior Transportation Engineer, Associated Engineering and Erin Rooney, Biologist/Regional Manager, Summit Environmental; Erin Rooney

14:45 PAVEMENT EVALUATION TO DETECT POTENTIAL VOIDS UNDER THE SURFACE AFTER THE HISTORIC FLOOD OF JUNE 2013 IN THE CITY OF CALGARY
Mohammad Karim, Business Strategist, City of Calgary; Dave Palsat; Vipin Sharma; Bryan Palsat; Art Johnston; Joe Chyc-Cies

15:15 30 Minute Coffee Break

15:45 RÉPARATION D’URGENCE D’UNE ROUTE EMPORTEE PAR UN GLISSEMENT DE TERRAIN DANS DES ARGILES SENSIBLES, SAINT-DENIS-SUR-RICHELIEU, QUÉBEC (EMERGENCY REPAIR OF A ROAD AFTER A LANDSLIDE IN SENSITIVE CLAY) *presented in French
Catherine Thibault, Ground Movement Section, ministère des Transports du Québec; Maryse Létourneau

16:15 BOW RIVER BRIDGE NEAR GLEICHEN, AB, AFTER THE FLOOD
Laurie McCarron, Bridge Engineer, Stantec Consulting Ltd.; Caroline Watt

GEOMETRIC DESIGN – PRESENT CHALLENGES (C) (SES)
Room 513C, 5th Floor, PDC
Organized by TAC’s Geometric Design Standing Committee

Chair: John Morrall, President, Canadian Highways Institute Ltd.

13:45 DEVELOPMENT OF A SCREENING TOOL FOR ROUNDBOUDT FEASIBILITY IN WINNIPEG
Mark Vogt, Engineer in Training, MSc Student and Research Associate, University of Manitoba, Transport Information Group; Kristen Poff; Scott Suderman; Jeannette Montufar

14:10 LE DÉFI DE L’INNOVATION ET LA GESTION DES EAUX PLUVIALES EN MILIEU ARTÉRIEL : PROJET DE REQUALIFICATION URBAINE DE L’AVENUE PAPINEAU EN RIVE DU CENTRE ENVIRONNEMENTAL SAINT-MICHEL À MONTREAL (INNOVATION AND MANAGEMENT STORMWATER CHALLENGE IN ARTERIAL ZONE : URBAN REQUALIFICATION PROJECT OF PAPINEAU AVENUE TO THE SAINT-MICHEL ENVIRONMENTAL CENTRE IN MONTREAL) *presented in French
Guy Trudel, Advisor, Urban Planning, Ville de Montréal

14:35 ROUNDBOUTS ON ALBERTA HIGHWAYS
Tamara Soltykevych, Engineer in Training, Alberta Transportation; Peter Mah; Bill Kenny

15:00 LIEN ROUTIER – AXE PONT CHAMPLAIN – DU PASSÉ VERS L’AVENIR (ROAD LINK – CHAMPLAIN BRIDGE - PAST, PRESENT, FUTURE) *presented in French
Douglas Balmer, Associate Principal, Arup Canada Inc.
GOODS MOVEMENT – PAST, PRESENT AND FUTURE (B) (SES)
Room 513D, 5th Floor, PDC
Organized by TAC’s Urban Transportation Council/ Transportation Planning and Research Standing Committee (TPRSC)

Chair: Sabbir Saiyed, Manager, Transportation System Planning, Public Works, Region of Peel

13:45 ALTERNATIVE TRANSPORT MODES FOR THE REGIONAL MUNICIPALITY OF WOOD BUFFALO: FORT CHIPEWYAN WINTER ROAD
Nelson Dos Santos, Manager Of Infrastructure, Northeast Alberta, Associated Engineering and Ihsan-ul Haq, Project Manager, Regional Municipality of Wood Buffalo

14:15 EVALUATING THE MANEUVERABILITY OF THEORETICAL TRACTOR-TRAILER CONFIGURATIONS AND EXTENDED TRAILER CONFIGURATIONS ON WINNIPEG TRUCK ROUTES
Morgan Glasgow, MASc Student, University of Manitoba; Kristopher Maranchuk; Tyler George

14:45 FREIGHT TRANSPORTATION DEMAND MANAGEMENT
Gary Kocialek, Strategist, Infrastructure Planning and Design, Transportation Division, Region of Peel; Sabbir Saiyed

15:15 30 Minute Break

15:45 LA RÉDUCTION DES ÉMISSIONS DE GES PAR L’INTERMODALITÉ ET L’EFFICACITÉ ÉNERGÉTIQUE DANS LE TRANSPORT MARITIME ET FERROVIAIRE (GREENHOUSE GAS EMISSIONS REDUCTION BY INTERMODALITY AND ENERGY EFFICIENCY IN SEA AND RAIL TRANSPORT) *presented in French
Pierre Brochu, Analyst and Head of Assistance Programs, Sea, Air and Rail Transport, ministère des Transports du Québec

16:15 WILDLIFE CROSSINGS
Naginder Jabbal, Senior Transportation Engineer, McElhanney Consulting Services Ltd.

ROUNDABOUTS AND OTHER STRATEGIES TO IMPROVE TRAFFIC FLOW (SES)
Room 518B, 5th Floor, PDC
Organized by TAC’s Traffic and Operations Management Standing Committee

Chair: Shannon Noonan, Manager of Transportation Engineering, Transportation and Public Works Department, City of Cambridge

13:45 CARREFOUR GIRATOIRE SUR UN AXE À HAUTE VITESSE – ÉTUDES DE CAS AU QUÉBEC (HIGH SPEED ROUNDABOUT – CASE STUDIES IN QUEBEC)*presented in French
Éric Dessureault, Project Director, Transportation Planning and Traffic, WSP Canada Inc; Stephan Kellner; Martin Hétu

14:15 ROUNDBOATS AND BICYCLES - ACCOMMODATING CYCLISTS IN NON-URBAN ROUNDBOATS
Stephan Kellner, Deputy Director, Transportation Planning and Traffic, WSP Canada Inc; Martin Hétu; Éric Dessureault

14:45 SYNTHESIS OF ROUNDBOAT IMPLEMENTATION PRACTICES
Phil Weber, Service Group Manager, GHD Inc.; Andy Duerr

15:15 30 Minute Coffee Break

15:45 THE CITY OF FREDERICTON SMYTHE STREET AT ROUTE 8 ROUNDBOAT PROJECT: PHASE I
Darren Charters, Traffic Engineer, City of Fredericton and Peter Allaby, Transportation Lead, exp Services Inc.

16:15 TRANSPORTATION IN THE OIL SANDS: PAST, PRESENT, FUTURE
Jason Ashwin, Sector Lead – Transportation, Stantec Consulting Ltd.
Poster sessions will be held in Hall 220D, Level 2, PDC, from Sunday, September 28 to Tuesday, September 30. Authors will be onsite to answer questions on Monday, September 29 from 11:00 to 12:00 and/or Tuesday, September 30 from 08:00 to 12:00.

**A NEW GENERATION'S PERSPECTIVE: PAVEMENTS OF THE FUTURE (PS)**
Organized by TAC’s Soils and Materials Standing Committee and Pavement Standing Committee

THE APPLICATION OF BACKPROPOGATION NEURAL NETWORK TO DEAL WITH RANDOMNESS OF PAVEMENT PERFORMANCE MODELING
*Md Shohel Reza Amin*, PhD Student, Concordia University

**ASSET MANAGEMENT: REINVENTING ORGANIZATIONS FOR THE NEXT 100 YEARS (PS)**
Organized by TAC’s Asset Management Task Force

ONE BRIDGE TO SPAN 100 YEARS: INTEGRATING DURABILITY AND STRUCTURAL DESIGN
*Anne-Marie Langlois*, Project Engineer, Buckland & Taylor / COWI

PERFORMANCE GUIDELINE FOR BURIED ALUMINUM STRUCTURAL PLATE STRUCTURES
*Anna West*, Research and Application Engineering, Atlantic Industries Limited; *Kevin Williams*

PROJET BONAVENTURE : UNE GRANDE INITIATIVE MONTRÉALAISE (BONAVENTURE PROJECTS: A BIG MONTREAL INITIATIVE) *presented in French
*Pierre Sainte-Marie*, Division Head, Big projects, Transportation Direction, Ville de Montréal

RELIABILITY BASED PRESERVATION FOR NEPTUNE TERMINAL
*Gary St-Michel*, Principal, Infrastructure Asset Management, Tetra Tech EBA; *Gary Ruck*

INTEGRATION OF ALTERNATIVE HIGHWAY DRAINAGE PIPE SELECTION AND ASSET MANAGEMENT
*Robert Douglas*, Senior Geotechnical Engineer, Low-volume Roads, Golder Associates Ltd.; *Michael Maher; Gregory Hebeler; Andrew Fuggle*

**BEST PRACTICES IN (URBAN) TRANSPORTATION PLANNING (PS)**
Organized by TAC’s Transportation Planning & Research Standing Committee

ACTIVE TRANSPORTATION PLANNING

CALGARY’S CITY CENTRE CYCLE TRACK NETWORK: CREATING QUALITY TRANSPORTATION CHOICES THROUGH BIKE INFRASTRUCTURE
*Arillis Szysky*, Senior Associate, Stantec Consulting Ltd.; *Blanka Bracic; Ryan Martinson*

MON RÉSOVÉLO: UNE APPLICATION INTELLIGENTE POUR UNE PLANIFICATION AMÉLIORÉE DES DÉPLACEMENTS À VÉLO (MY RÉSOVÉLO: AN INTELLIGENT APPLICATION FOR IMPROVED PLANNING BY BICYCLE TRIPS) *presented in French
*Yannick Roy*, Planning Advisor, Ville de Montréal

STEERING THE CYCLING REVOLUTION
*David Richardson*, Senior Project Manager and Partner, Transportation Planning, MMM Group Limited; *Michael Parker; Dave McLaughlin; Gerry Forbes*

TRANSIT PLANNING

AN INTEGRATED TRIP-FARE CALCULATOR – A SOUGHT-AFTER FEATURE IN A TRANSIT AGENCY WEBSITE
*Ka Kee Alfred Chu*, Specialist, Modeling and Analysis, Agence métropolitaine de transport

CALGARY TRANSIT: OVERCOMING THE LAST MILE
*Mark Stout*, Engineer, Transit Planning, CIMA+; *Jen Malzer; Asif Kurji*
UNDERSTANDING RELIABILITY AND EQUITY FOR BUS ROUTE SERVICE PLANNING
Rajib Sikder, Graduate Research Assistant, University of Alberta; Amy Kim

TRANSPORTATION MASTER PLANNING
BRIDGING THE GAP: BRINGING LAND USE AND TRANSPORTATION PLANNING TOGETHER WITH THE LETHBRIDGE INTEGRATED GROWTH MANAGEMENT STRATEGY (IGMS) STUDY
Bosco Tong, Senior Transportation Engineer, MMM Group Limited, Calgary; David Patman

CAPITAL REGION MANITOBA TRANSPORTATION MASTER PLAN
Kenn Rosin, A Sustainable Transportation Master Plan for the Manitoba Capital Region, MMM Group Limited

GROWTH PLAN TO HALF A MILLION: GROWING FORWARD SHAPING SASKATOON
John Steiner, Director, Principal, Urban Systems; Lee Thomas, Project Manager, Growing Forward Shaping Saskatoon

RECONDUIRE ET ALLER CHERCHER QUELQU’UN : DE PETITS DÉPLACEMENTS ANODINS À INCIDENCES MULTIPLES (DROP-OFFS AND PICK-UPS: SMALL TRIPS WITH MULTIPLE IMPACTS) *presented in french
Catherine Morency, Assistant Professor, Polytechnique Montréal; Hubert Verreault

REGIONAL SUSTAINABLE TRANSPORTATION MASTER PLAN
Elizabeth Szymanski, Senior Project Manager, HDR Corporation

CHARACTERIZATION OF SOILS AND PAVEMENT MATERIALS FOR MECHANISTIC EMPIRICAL PAVEMENT DESIGN (PS)
Organized by TAC’s Soils and Materials Standing Committee

EFFECTS OF RAP ON THE MECHANICAL PROPERTIES OF ASPHALT MIXES AND BINDER, AND ON THE PREDICTED PAVEMENT PERFORMANCE
Saman Esfandiarpour, PhD Candidate, Pavement Group, University of Manitoba; Ahmed Shalaby; M. Alauddin Alhammed; Tara Liske; Said Kass

INVESTIGATION OF THERMAL BEHAVIOUR AND STRUCTURAL CAPACITY OF BOTTOM ASH AS AN INSULATION LAYER
Alireza Bayat, Assistant Professor, University of Alberta; Somayeh Nassiri; Alireza Bayat

DESIGN, CONSTRUCTION AND MAINTENANCE OF PERMEABLE PAVEMENTS (PS)
Organized by TAC’s Pavements Standing Committee

A STATE-OF-THE-ART REVIEW OF PERVERIOUS CONCRETE TEST METHODS
Sonia Rahman, MASc Candidate, University of Waterloo; Andrew Northmore; Susan Tighe; David Rhead

ASPHALT PAVEMENT FRICTION ANALYSIS: A CPATT TEST TRACK CASE STUDY
Janki Bhavsar, Graduate Student, University of Waterloo; Susan Tighe

EVALUATION OF QUIET ASPHALT PAVEMENT TEST SECTIONS IN ONTARIO
Seyed Tabib, Senior Bituminous Engineer, Ontario Ministry of Transportation; Chris Blaney; Pamela Marks; Fiona Tam; Heather Beattie

EMERGENCY REPAIR AND RECONSTRUCTION OF TRANSPORTATION INFRASTRUCTURE DAMAGED BY CATASTROPHIC ENVIRONMENTAL EVENTS (PS)
Organized by TAC’s Soils and Materials Standing Committee

MATURITY TESTING AND ACCELERATED CONCRETE FOR BRIDGE DECK RAPID REPLACEMENT
Walid Najjar, Quality Manager and Vice President, WSP USA CORP

RAPID ORTHOTROPIC DECK REPLACEMENT FOR ALBERTA THREE-SPAN BRIDGE REHABILITATION
Matthew Spratlin, Bridge Design Engineer, Alberta Transportation; A. Saunders; E. Levesque; Y. Martin; F. Jutras
GOODS MOVEMENT - PAST, PRESENT, FUTURE
Organized by TAC's Urban Transportation Council and Transportation Planning and Research Standing Committee

THE CARBON FOOTPRINT OF FREIGHT TRAFFIC AND PAVEMENT TREATMENTS FOR INTERPROVINCIAL TRADE FLOWS OF ATLANTIC CANADA
Shohel Reza Amin, PhD Student, Concordia University; Luis E. Amador-Jiménez

GREEN TECHNOLOGIES - INNOVATION TO IMPLEMENTATION AND EVALUATION (PS)
Organized by TAC's Pavements Standing Committee

LABORATORY CHARACTERIZATION OF SASKATOON TIRE DERIVED AGGREGATE (TDA)
Ganiu Abdul Rahman, MASc Student, University of Saskatchewan; Vanessa García; Rielle Haichert; Roberto Soares; Shane Olsen; Curtis Berthelot

MEETING THE INDUSTRY CHALLENGES ASSOCIATED WITH UTILIZING RECLAIMED ASPHALT SHINGLES (RAS) IN ASPHALT – AN AGENCY PERSPECTIVE
Art Johnston, Chief Technologist, Transportation, Tetra Tech EBA; Karim Mohammad; Joe Chyc-Cies

PRESENTATION OF RESEARCH PROJECTS ON ADAPTATION TO CLIMATE CHANGE IN THE TRANSPORTATION SECTION UNDER THE CLIMATE CHANGE ACTION PLAN (2006-2012 CCAP) (PS)
Organized by TAC's Climate Change Task Force

ACQUISITION OF OCEANOGRAPHIC DATA IN ÎLES-DE-LA-MADELEINE FOR ANALYSIS OF SOLUTIONS TO PROTECT ROUTE 199, BAIE DE PLAISANCE AND POINTE-À-LOUPS SECTORS
Urs Neumeier, Marine Biology Professor, Université du Québec à Rimouski

EVALUATION OF THE WAVE CLIMATE OF THE GULF OF ST. LAWRENCE WITH A PARAMETRIC WAVE MODEL
Urs Neumeier, Marine Biology Professor, Université du Québec à Rimouski

ICE MODELLING IN THE ESTUARY AND GULF OF ST. LAWRENCE IN A CLIMATE CHANGE PERSPECTIVE
Simon Senneville, Research Officer, Physical Oceanography, Analysis and Simulation Laboratory in Ocean Systems Lasso, Université du Québec à Rimouski

IMPACT OF THE ICE COVER ON THE ST. LAWRENCE WAVE REGIME
Urs Neumeier, Marine Biology Professor, Université du Québec à Rimouski

STUDY OF VARIATION OF NUNAVIK SHORE ICE BASED ON CLIMATE CHANGE
Simon Senneville, Research Officer, Physical Oceanography, Analysis and Simulation Laboratory in Ocean Systems Lasso, Université du Québec à Rimouski

THE QUEBEC ENVIRONMENTAL HYDRAULICS LABORATORY OF THE INRS COASTAL AND RIVER ENGINEERING RESEARCH CHAIR
Régis Xhardé and Janette Frandsen, Fluid Dynamics, Fluid-Structure Interaction, Numerical Methods, Ocean and Wind Power Engineering, Institut national de la recherche scientifique – Centre Eau Terre Environnement

TOWARDS ACCOUNTING FOR CLIMATE CHANGE IN MANAGEMENT OF COASTAL EROSION IN ÎLES-DE-LA-MADELEINE
Pascal Bernatchez, Professor and Research Chair, Inshore Geosciences, Université du Québec à Rimouski; Susan Drezza, Pascal Bernatchez, Steeve Dugas, Tarik Toubal, Stéphanie Van-Wierts et Stéphanie Friesinger

VULNERABILITY OF EASTERN QUEBEC ROAD INFRASTRUCTURES TO EROSION AND COASTAL SUBMERSION IN A CLIMATE CHANGE CONTEXT
Pascal Bernatchez, Professor and Research Chair, Inshore Geosciences, Université du Québec à Rimouski; Stéphanie Friesinger, Susan Drezza, Pascal Bernatchez, Ursule Boyer-Villemaire, Stefanie Van-Wierts, Guillaume Marie et David Lacombe

WAVE MODELLING OF THE ESTUARY AND GULF OF ST. LAWRENCE IN A CLIMATE CHANGE CONTEXT
Urs Neumeier, Marine Biology Professor, Université du Québec à Rimouski
ROAD CONSTRUCTION – PAST, PRESENT, FUTURE (PS)
Organized by TAC’s Maintenance and Construction Standing Committee

ALBERTA TRANSPORTATION’S EARLY EXPERIENCE IN USING AN IRI BASED SMOOTHNESS SPECIFICATION
Jing Xu, Roadway Materials Engineer, Alberta Transportation; Jim Gavin

HIGH ALBEDO SURFACES FOR THERMAL STABILIZATION OF ROAD EMBANKMENT BUILT ON PERMAFROST
Simon Dumais, MASc Student, Department of Civil Engineering, Université Laval; Guy Doré

NANOTECHNOLOGY APPLIED IN THE DESIGN OF THE NEXT GENERATION OF CONCRETE PAVEMENT SURFACE
Marcelo Gonzalez, PhD Candidate, University of Waterloo; Susan Tighe

RUTTING BEHAVIOUR OF TYPICAL ONTARIO RAP-HMA MIXTURES
Doubra Ambaiowei, PhD Candidate, University of Waterloo; Xiomara Sanchez; Susan Tighe; Vince Aurilio

SWITAB FOR PROJECT MANAGEMENT: TABLET-BASED PROJECT MANAGEMENT TOOL FOR INFORMATION DEPLOYMENT TO MULTIPLE STAKEHOLDERS
Greg Plewis, Manager, Transportation Infrastructure, Opus Stewart Weir

ROAD SAFETY POLICY DEVELOPMENT - PAST, PRESENT, FUTURE (PS)
Organized by TAC’s Road Safety Standing Committee

SAFETY APPLICATIONS OF CYCLIST GPS TRIP DATA IN MONTREAL
Jillian Strauss, PhD Candidate, McGill University; Luis Miranda-Moreno

THE ROLE OF HUMAN FACTORS IN ROAD SAFETY (PS)
Organized by TAC’s Road Safety Standing Committee

METHOD FOR ASSESSING THE ROAD SAFETY IMPACT OF DIGITAL AND PROJECTED ADVERTISING DISPLAYS IN CANADA
Garreth Rempel, Principal and Founding Partner, MORR Transportation Consulting Ltd.; Jeannette Montufar; Robert Dewar; Gerry Forbes

SERVICEABILITY APPROACH TO ASSET MANAGEMENT (PS)
Organized by TAC’s Pavements Standing Committee and Asset Management Task Force

CITY OF CALGARY’S PAVEMENT MANAGEMENT SYSTEM – PERFORMANCE INDICES COMPARISON
Venkat Lakkavalli, Pavement Engineer, City of Calgary; Joe Chyc-Cies; Sukhwinder Dhanoa

COMPARISON OF NETWORK LEVEL RECOMMENDATION AND PROJECT LEVEL REHABILITATION TREATMENT
Mahsa Mohajerani, Pavement Management Engineer, Alberta Transportation; Wei He

UPDATING OF THE AIRPORT DEVELOPMENT REFERENCE MANUAL, NEW 10TH EDITION, MARCH 2014
Nathalie Martel, Director, Aviation, AECOM; Guy Brazeau

SPECIAL EVENT AND INCIDENT MANAGEMENT CASE STUDIES AND BEST PRACTICES (PS)
Organized by TAC’s Traffic and Operations Management Standing Committee

SIMULATION-BASED PERFORMANCE EVALUATION OF THE ROAD NETWORK IN THE AFTERMATH OF EARTHQUAKE: A CASE STUDY OF MONTREAL ISLAND
Umma Tamima, PhD Candidate, McGill University; Luc Chouinard; Amitkumar M. Patel; Martin Dimitrov

SUMMER ROAD MAINTENANCE – PAST, PRESENT, FUTURE (PS)
Organized by TAC’s Maintenance and Construction Standing Committee

IMPACTS OF COLD JOINT CONSTRUCTION ON PAVEMENT FUNCTIONAL AND STRUCTURAL PERFORMANCE
Mohab El-Hakim, Pavement Engineer, Stantec Consulting Ltd.; Amir Abd El Halim; Richard Korczak; Gary Moore; Richard Andoga
INTEGRATING NON-DESTRUCTIVE TESTING INTO THE INFRASTRUCTURE INSPECTION PROCESS
Kevin Vine, General Manager, multiVIEW

WINTER MAINTENANCE (PS)
Organized by TAC’s Maintenance and Construction Standing Committee

CLIMATE CHANGE MODELING AND THE WEATHER-RELATED ROAD ACCIDENTS
Shohel Reza Amin, PhD Student, Concordia University; Alireza Zareie; Luis E. Amador-Jiménez

WINTER ROAD MAINTENANCE – PAST, PRESENT, FUTURE (PS)
Organized by TAC’s Maintenance and Construction Standing Committee

EFFECT OF PLOWING AND SANDING ON FRICTION AND STOPPING DISTANCE DURING BRAKING
Alireza Bayat, Assistant Professor, University of Alberta; Sahar Salimi; Somayeh Nassiri