

Watch for Collision-prone Location Screening Guidelines

TAC is putting the finishing touches on national guidelines for collision-prone location screening in Canada.

To determine high-risk locations on a road network where motorists and other road users are killed or seriously injured, some road authorities undertake scientific investigations such as collision-prone location (CPL) screening activities, black spot programs, or network analysis.

The purpose of these activities is to identify road infrastructure deficiencies and traffic operations and control features that may have contributed to the collisions and establish appropriate mitigation measures. This process is critical in developing effective road safety management programs in line with Canada's road safety vision.

The new publication is intended to help practitioners and safety consultants use network screening analytical procedures and statistical concepts to identify and prioritize locations with the highest potential for safety improvement. Road authorities will be able to implement state-of-the-art screening methods to modify and improve the safety performance of the network.

Recognizing that CPL screenings depend on a number of variables as well as the needs and approach of each agency, the TAC guidelines feature recommended and interim screening methods including methodology, illustrations, and, where possible, implementation steps such as the development or acquisition of analytical tools.

The document also provides guidance for agencies to select the methods that are compatible with their current resources and screening

needs, as well as required data and resources to move from interim to advanced methods.

State-of-the-art methodologies contained in the publication were based on recent research sanctioned by organizations such as the American Association of State Highway and Transportation Officials and the U.S. Federal Highway Administration.

Initiated by TAC's Road Safety Standing Committee, the project was conducted by **Navigats Inc.** Watch for a publication notice on TAC's website in the coming months. 



Learning Materials on Best Practices for Transportation Planning Studies

The association is undertaking a project to develop workshop materials to accompany TAC's *Best Practices for Technical Delivery of Long-term Transportation Planning Studies in Canada*.

Originally published in 2008, the best practices report focused on analytical tools and associated data that support long-term transportation planning practices of small and medium-sized communities in Canada.

Advanced through TAC's Transportation Planning and Research Standing Committee, the new initiative will create a comprehensive set of materials including handouts, presentations and worked examples that can be used to train municipal staff on the use of best practices for transportation planning studies.

The materials, intended for municipal senior management, municipal urban and transportation planners, as well as consultants, academia and

the research community, will be used to conduct workshops across Canada.

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Learning Materials on Best Practices (cont'd from p. 1)


Attendees will obtain an overview of TAC's 2008 report and its intended use, guidance on the scope of use of best practices and circumstances where the practices are most applicable, as well as worked examples of all major procedures contained in the best practices. The workshop materials will help attendees use best practices in a number of typical transportation planning scenarios and develop a transportation planning strategy best suited to their organization's context and needs.

The project steering committee is currently finalizing the request for proposals and will carry out the consultant selection process in the coming weeks. The project is scheduled to be completed by the spring of 2012.

Sponsors of this project include **Alberta Transportation, Nova Scotia Transportation and Infrastructure Renewal, the Ministry of Transportation of Ontario, the Ministry of Transport of Quebec, Saskatchewan Highways and Infrastructure** and the **cities of Ottawa, Moncton, Montreal and Saskatoon**. 

TAC Events and Communications Assistant Director Retires

After 38 years of service, TAC Assistant Director, Events, Communications and Special Initiatives, Gilbert (Gil) Morier retired in January 2011. Gil began his career as an information officer and moved progressively into communications, member services and event planning. Highly recognized among TAC members for his role in organizing the annual conference and in producing *TAC News*, he took on key responsibilities within the association. These included media relations, the honours and awards program, a range of French-language services, liaison with l'Association québécoise du transport et des routes, as well as the co-organization of international events with various partner organizations. Gil also provided logistical support to the TAC Board and the Council of Ministers Responsible for Transportation and Highway Safety.

Gil has returned to TAC on a part-time contractual basis, primarily to work on planning the association's centennial celebrations in 2014. 



2011 TAC Annual Conference and Exhibition

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DELEGATES – Early registration information will be posted on TAC's website in late April.

EXHIBITORS – To book your exhibit space, visit the association's website in early April.

SPONSORS – For a description of remaining sponsorship opportunities, consult the material already posted on the website.

www.tac-atc.ca

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TAC is a national, not-for-profit association with a mission to promote the provision of safe, secure, efficient, effective and environmentally and financially sustainable transportation services in support of Canada's social and economic goals.

The Association is a neutral forum for gathering or exchanging ideas, information and knowledge on technical guidelines and best practices.

In Canada as a whole, TAC has a primary focus on roadways and their strategic linkages and inter-relationships with other components of the transportation system.

In urban areas, TAC's primary focus is on the movement of people, goods and services and its relationship with land use patterns.

Canadian Transportation Awards Program

Nominate the Transportation Industry's Best Players!

The Canadian Transportation Awards Program is intended to **recognize leadership, excellence and achievement in all modes and segments of the transport sector**. If you know someone who has made an outstanding contribution to transportation in Canada, this is your opportunity to ensure that this individual is considered for the industry's most prestigious awards!

Nominations are solicited for the following four award categories in 2011:

- ◆ Transportation Person of the Year;
- ◆ Award of Excellence (up to two awards);

- ◆ Award of Achievement (up to two awards); and
- ◆ Award of Academic Merit (up to two awards).

Supported by Transport Canada, the Canadian Transportation Awards Program is administered by TAC. For more information on the program and to submit a nomination, **visit TAC's website**.

Nominations for the 2011 awards must be received online no later than May 13.

Canada's Minister of Transport, Infrastructure and Communities or the Minister's alternate will confer the awards during the closing banquet of TAC's 2011 Annual Conference and Exhibition to be held in Edmonton, September 11-14.

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New Guide for the Accommodation of Utilities within Freeway Rights-of-way

A new TAC guide, currently in its final stages, will promote the establishment of uniform guidelines to help provincial road authorities administer the accommodations of utilities within freeway rights-of-ways in Canada.

Providing essential services to the public, utility firms often install facilities within rights-of-way of public roads. The responsibility of road authorities includes operating the highway rights-of-way in a manner that ensures the safety, traffic-carrying ability and physical integrity of their facilities, and regulating the presence of utilities.

Resulting from volunteer projects overseen by the association's Maintenance and Construction Standing Committee, the document applies to all highways with full control of access and is intended for managers in the public and private sectors, as well as consulting engineers in the freeway / utility industry.

Suggested guidelines make no reference to the legal right of utilities to use or occupy freeway rights-of-way, or the financial responsibility involved in the adjustment or installation of utilities within such rights-of-way.

Although the primary purpose of TAC's *Guide for the Accommodation of Utilities within Freeway Rights-of-Way* is to maintain the safety and operation of highways and to ensure uniformity between provinces, it also recognizes the public interest in avoiding costly operation and relocation of public utilities.

A publication notice will be posted on TAC's website once the bilingual guide becomes available.

Mark your Calendars for TAC's Spring Meetings

Scheduled for April 14-18, TAC's 2011 Spring Technical Meetings will be held at the downtown Ottawa Delta City Centre (formerly the Crowne Plaza Hotel). Information about the meetings is now available online at www.tac-atc.ca.

The Spring Technical Meetings are the association's second largest annual event and offer excellent technical information exchange and valuable networking opportunities. Many of the meetings are open to TAC members in general unless otherwise indicated.

Almost all of TAC's councils and committees will convene during the meetings. A joint technical luncheon, hosted by the association and the National Capital Section of the Canadian Institute of Transportation Engineers will be held on Friday, April 15. It will feature a presentation on roundabout design challenges in Canada. An all-participant event is planned for Saturday, April 16 which will include introductory remarks by TAC's President Robert Smart, followed by a member reception. The TAC Board of Directors will meet on April 18.

Although no registration fees apply, the association is asking **TAC council and committee members to confirm their attendance online** in order to better welcome and identify meeting attendees. Non-committee TAC members attending the spring meetings are asked to confirm their attendance once by sending an email to meetings-reunions@tac-atc.ca, regardless of the number of meetings they will be attending.

Thanks once again to **The Cement Association of Canada** and **Ourston Roundabout Engineering Canada** for their sponsorship commitment to TAC's Spring Technical Meetings.



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For additional information, including a preliminary agenda and hotel reservation information, visit the events section of TAC's website.



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Climate Risk Assessment: The First Step in Adapting to a Changing Climate

Editor's Note: In this contribution to TAC News, David Lapp, Manager, Professional Practice, Engineers Canada, and Dirk Nyland, Chief Engineer, British Columbia Ministry of Transportation and Infrastructure, write about the assessment of potential effects of climate change on public infrastructure. Published on behalf of TAC's Climate Change Task Force, this feature is one in a series of articles to profile climate change initiatives of member organizations.

The TAC Climate Change Task Force continues to work with councils and committee members to provide leadership and raise awareness about climate change in Canada. As part of this process, the task force has been working with various groups and organizations including the Public Infrastructure Engineering Vulnerability Committee. Created to conduct an engineering assessment of the vulnerability of Canada's public infrastructure to the impacts of climate change, the committee is co-funded by Natural Resources Canada (NRCan) and Engineers Canada.

The following article identifies the approach used by this group to assess the potential effects of climate change on public infrastructure. This is one of several different approaches being presented as information for TAC members – not as an endorsement of the best approach.

Evidence of significant changes in climate today and projected for the future has reached a level of scientific certainty that we can no longer ignore. The potential risks and impacts these changes could have on the safe and effective operation of our public infrastructure – as well as the impact on human life and on economic prosperity – could be significant.

Until recently, engineers have relied on historical climate data in their designs, but projected increases in frequency and intensity of extreme weather events in the coming decades may mean that loadings from these events could exceed design capacity. Repairs and replacement costs may be substantial and overwhelming.

In August 2005, localized rainfall in Toronto resulted in the Finch Avenue culvert failure, which, according to the City of Toronto, cost approximately \$10 million to fix with a loss of service for nine months. The Insurance Board of Canada reported insurance payouts in the amount of over \$500 million for sewer back-ups and other property damage and business disruption.

For transportation infrastructure, disruption of service can impact public safety and health if it is not available. These disruptions lead to business and societal losses that can amount to tens or hundreds of millions of dollars.

According to Engineers Canada's Chief Executive Officer Chantal Guay, "a strategy that includes planning and implementing processes to adapt transportation infrastructure to changing climatic conditions through engineering vulnerability and climate risk assessment is fiscally responsible and ensures that the infrastructure provides an acceptable and reliable level of service over its life cycle."

She believes a strategy that allows for the adaptation of infrastructure to these extreme weather events and climate change can lead to reduced risks and impacts in the future. Engineers, planners, managers, operators and other professionals including climate scientists need to work as a multi-disciplinary team on this issue.

The First Step: Assessing the Risk

Identifying the engineering components of the infrastructure for vulnerability or risk enables the development of cost-effective engineering and operations solutions. While there are substantial uncertainties in projecting future climate parameters that may impact the infrastructure, assessing this uncertainty is a crucial first step towards effective adaptation.

Since 2005, Engineers Canada has been working on a project to perform a national engineering vulnerability assessment of existing and planned public infrastructure to the impacts of climate change. This project led to the creation of a formalized climate risk assessment tool, the *Public Infrastructure Engineering Vulnerability Committee Engineering Protocol*.

The Protocol outlines a process to systematically review climate information and identify the vulnerabilities or adaptive capacity, of the individual infrastructure. Risk profiles of the infrastructure components for current as well as future climate are developed using a risk matrix, illustrated in Figure 1. These profiles are used to prioritize which components require adaptation and how (e.g. design adjustments, changes to operations or maintenance procedures).

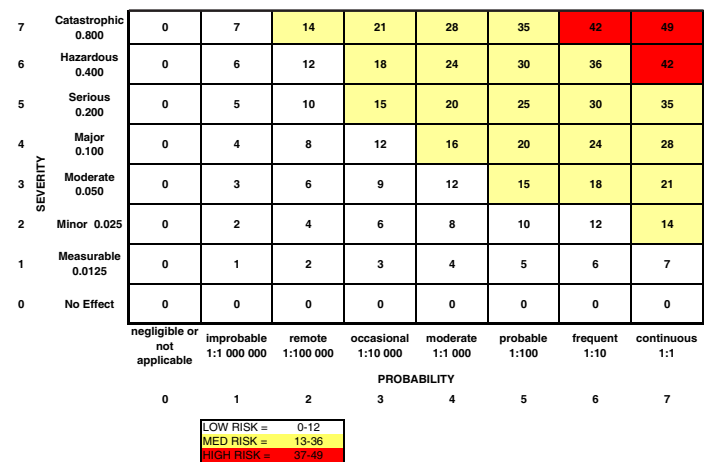


Figure 1: Infrastructure Risk Assessment Matrix

The Protocol has been applied in over 20 case studies of individual infrastructures in Canada, including buildings, storm water / wastewater systems, roads and associated structures and water supply / management systems.

Example findings of these studies include:

- ◆ **Roads and bridges** are highly vulnerable to increased ice accretion and freeze-thaw cycles that will accelerate wear and tear. Heavier snows will require adjustments to snow removal procedures; virtually all the infrastructure components that are highly vulnerable are due to increased frequency and magnitude of severe weather events. Better methods to track, predict and broadcast such events at local scales are needed.
- ◆ **The Coquihalla Highway** is generally resilient to climate change with the exception of drainage infrastructure response should "Pineapple Express" rainfall events increase in frequency. This meteorological phenomenon is characterized by a strong and persistent flow of atmospheric moisture and associated heavy rainfall from the waters adjacent to the Hawaiian Islands extending to any location along the Pacific coast of North America. Engineering standards for the Coquihalla Highway are robust given the climatic changes forecast in the future. It was also recommended to incorporate required upgrading of infrastructure components into the regular remedial design and maintenance program. Further investigation of visibility (fog) and high wind / downburst issues will require better definitions and assessment of the climate change impact.



British Columbia Coquihalla Highway

Owners and managers must plan and implement a process to adapt their transportation infrastructure to changing climate conditions in a fiscally responsible manner. The infrastructure should provide an acceptable and reliable level of service over its life cycle. The first step is an engineering vulnerability / climate risk assessment.

To obtain additional information on related studies, consult Engineers Canada at www.engineerscanada.ca 

New Faces on TAC's Member Services and Communications Team



Erica Andersen

Erica Andersen has joined TAC as Director, Member Services and Communications, and Marie-Louise Doyle is the new Manager, Conferences, Meetings and Events.

Erica's appointment follows the departure of Deb Cross who will be moving to London, England at the end of April. We wish her continued success.

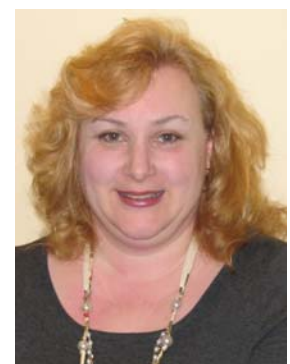
Erica will lead the member services and communications team to ensure optimal

value for TAC members and customers, including recruitment and retention initiatives, ongoing customer relations and member services. She will oversee the strategic development, delivery and marketing of TAC's products and services, publications, website, public affairs, conference and major events, awards and special initiatives. Erica will be the primary contact for media relations and will orchestrate the framework for the enhancement of French-language services.

A seasoned professional with a broad range of experience, Erica's key roles included Director of Member Services for the Canadian Bar Association, Executive Director of Membership for Ottawa Tourism and Marketing Director for the Canadian Association for Health, Physical Education, Recreation and Dance. She holds a master's degree in physical education administration, as well as a bachelor's degree in physical education both from the University of Ottawa. Erica was an


advisor to the Ottawa Rural Tourism Council's Board of Directors and represented Southern Ontario on Attractions Ontario's Board of Directors.

In her new position, Marie-Louise Doyle will manage the concept development, logistics and delivery of TAC's recurring and promotional events, including the annual conference and exhibition, the spring technical meetings and the TAC awards. She will also assume responsibility for on-site delivery of the overall conference and events, and undertake special initiatives for the association.



Marie-Louise Doyle

Marie-Louise has over 10 years' experience in conference and meetings logistics with several high-profile organizations, including the Appraisal Institute of Canada and the Canadian Health Services Foundation. As principal consultant of her own firm, she managed corporate events and provided services in communication tools assessment. Marie-Louise holds a bachelor's degree in arts, criminology and law from Carleton University and is working towards obtaining her master's.

Marie-Louise's appointment follows the departure of Gil Morier, who retired from TAC after 38 years of service. 

TAC Foundation Broadens its Mandate


The TAC Foundation recently undertook an in-depth strategic planning session facilitated by a specialist consultant.

The Foundation's Board of Directors and members indicated that the scholarships program should focus on strategies to increase donor funds and develop new programs in support of the Foundation's broader mandate.

Key conclusions from this endeavour were:

- ◆ Maintain a strong emphasis on the scholarship program
- ◆ Assign the development of new programs to the mentoring committee
- ◆ Increase the Foundation Endowment Fund to reinforce the sustainability of finances
- ◆ Add new directors to solicit additional donation sources
- ◆ Expand the pool of volunteer resources
- ◆ Reconstitute the communications committee to enhance donor recognition and better communicate the Foundation's objectives and successes to the industry

The Foundation's 2011-12 scholarship funding program is currently underway. Several major donors have committed to renewing their multi-year commitments. The Alberta Traffic Group of Companies also came on board as a new silver-level donor.

To obtain additional information on its activities or to become a donor or volunteer, contact the TAC Foundation at foundation@tac-atc.ca. 

LED-embedded Traffic Signs Report Readied for Publication

TAC will soon release a report on recommended practices for the use of LED-embedded traffic signs (LETS) on Canadian roads.

LETS are used to highlight an existing static sign and contain light emitting diodes (LEDs) in the sign face. They differ from internally illuminated or backlit traffic signs.

TAC's recommended practices state that LETS should be restricted to "Stop" and "Yield" signs, as well as the stop side of the "Stop / Slow" paddle. These uniquely-shaped signs are easily recognizable. LEDs should be placed on the border of the signs to highlight their shapes during conditions of low light.

Embedding light emitting diodes are often used to strategically increase the conspicuity of a traffic sign. LETS may be used in place of static signs at locations where a sign is not expected or where driver attention is not directed toward a critical sign.

LED-embedded traffic signs use should be limited because they may decrease the effectiveness and visibility of similar static signs. It is therefore essential to manage the use of LETS through sound engineering and decision-making principles.

The new recommended practices include warrants for use and guidance on operations, flash rate, flash pattern, LED colour, number, placement and intensity. Furthermore, additions to TAC's *Manual of Uniform Traffic Control Devices for Canada* have been prepared to describe LETS and provide guidelines for their installation and placement.

This project was initiated by TAC's Traffic Operations and Management Standing Committee and conducted by **Intus Road Safety Engineering Inc.**

A publication notice will be posted on TAC's website in the coming months indicating the release of the new report. Accompanying research, including a literature review and a survey of transportation agencies, will also be added to the TAC library database as a searchable document. 

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Early-bird Conference Sponsors Commit their Support

The call for national sponsors has been launched for the 2011 TAC Annual Conference and Exhibition, *Transportation Successes: Let's Build on Them*, which will take place in Edmonton, from September 11-14.

Thank you to the following sponsors that have committed their support to Canada's preeminent transportation event.

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To obtain additional information on remaining conference sponsorship opportunities and key benefits, visit www.tac-atc.ca or contact Erica Andersen (eandersen@tac-atc.ca) at the TAC secretariat.

NEW MEMBERS

TAC is pleased to welcome the following new members:

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Antigonish, NS
Ken Proctor

Composites Innovation Centre

Winnipeg, MB
William Darracott, Principle Engineer, Civil Infrastructure EIT

City of Courtenay

Courtenay, BC
Tyler Madsen, Engineering Technologist

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David Saunders, Public Works Manager

City of Sault Ste-Marie

Sault-Ste-Marie, ON
Andy Starzomski, Manager of Traffic and Communications

City of St. Thomas

St.Thomas, ON
Al Wingrove, Senior Technician Roads and Traffic

Telenium Inc.

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Ray Senez, President

Gurjeet Shaheed

Edmonton, AB

Geometric Design Guide Updates Approved

Three revisions to TAC's *Geometric Design Guide for Canadian Roads* have recently been approved by the Chief Engineers' Council.

The revisions, which cover horizontal clearance on bridges, rumble strips and passing sight distance, resulted from volunteer efforts by the Revisions and Additions Subcommittee, under the guidance of the Geometric Design Standing Committee.

Horizontal Clearance on Bridges

Two figures contained in chapter 2.2 of the guide (cross section elements) will be revised to reduce potential confusion and delete redundant information while retaining the desired guidance. They deal with horizontal clearance on bridges on urban arterial roads and urban freeways (overpass).




Rumble Strips

Additional information on centreline rumble strips will be added to the guide in chapter 2.2 and outdated design details for shoulder rumble strips will be eliminated. The list of references will also be supplemented with two relevant publications including the National Cooperative Highway Research Program's report, *Guidance for the Design and Application of Shoulder and Centreline Rumble Strips* (2009) and TAC's *Best Practices for the Implementation of Shoulder and Centreline Rumble Strips* (2001).

Passing Sight Distance

This update, contained in chapter 1.2 (design controls), addresses the difference in the passing sight distance methodology described in the geometric design guide and in TAC's *Manual of Uniform Traffic Control Devices for Canada*.

Currently, the guide assumes that a driver can safely complete a pass if an oncoming vehicle appears at the end of phase 1 of the passing manoeuvre. Visibility using a driver eye height of 1.05 metres and an object height of 1.3 metres are recommended. The manual assumes that a driver can safely abort a pass if an oncoming vehicle appears at the end of phase 1 of the passing manoeuvre, and recommends a driver eye height and an object height of 1.15 metres. The proposed revision will add the manual model to the geometric design guide as an option and describe how both approaches differ.

Updates to the guide are currently being finalized and will be released in the coming months. 

MEMBERSHIP HAPPENINGS

Delcan Corporation, a multi-disciplinary engineering, planning, management and technology consulting firm, has announced the addition of a new Rail and Transit group. The new formation will combine rail and transit systems resources, including expertise in vehicles, trackwork, signaling, communications, control centres, traction power, systems engineering and integration, test and commissioning and safety assurance.

Opus International Consultants Limited has acquired Dayton & Knight Ltd., an engineering consultancy, based in North Vancouver. Opus, an international multi-disciplinary consultancy employing over 2,300 people worldwide, provides services in transportation asset

management, building design, water, wastewater and infrastructure development. The merger will increase their presence in the Canadian and British Columbia markets, providing the company with added strength and municipal engineering capability and resources.

Transoft Solutions Inc. has launched new roundabout planning and design software, enabling transportation engineers and planners to execute three dimensional road surface grading modeling to analyze drainage patterns. Transoft, a software developer for the engineering community, has also released advanced technology for planning and developing roadway intersection designs for new construction and rehabilitation projects.

Revisions to TAC's Manual of Uniform Traffic Control Devices

Revisions to TAC's *Manual of Uniform Traffic Control Devices for Canada* on signs and markings for multilane roundabouts were recently approved by the Chief Engineers' Council.

A new section containing the newly-approved revisions has been added to the manual and will feature details on yield line markings, circulatory road lane lines and pavement arrows; roundabout lane designation regulatory signs; a truck encroachment warning sign and new guide signs including an advance roundabout diagrammatic sign, a roundabout overhead sign and a roundabout exit sign.

As well, a roundabout yield sign and the typical application of these signs will be removed from the manual.

The project was initiated by TAC's Traffic Operations and Management Standing Committee (TOMSC) and conducted by **Ourston Roundabout Engineering Canada**.

The manual updates are currently being finalized by the TOMSC Editing and Publishing Subcommittee.

The report describing the research and the development of the recommendations will soon be posted as reference material in the TAC library. 

TAC to Publish Canadian Capacity Guide for Signalized Intersections

With approval secured from TAC's Chief Engineers' Council, work is currently underway to republish the third edition of the Canadian Capacity Guide for Signalized Intersections in the name of both the association and the Canadian District of the Institute of Transportation Engineers (CITE).

The third edition of the guide was originally published by CITE in February 2008. The ongoing development of the guide is supported by a joint advisory committee comprised of members of TAC's Traffic Operations and Management Standing Committee and CITE.

Based on the current experience of traffic practitioners, transportation educators and students across Canada, the publication provides a methodology for traffic engineers to plan, design and evaluate traffic signal controlled roadway intersections.

A publication notice will be posted on the association's website once the revised edition becomes available.

Ramp Speed Limit Signing Report Coming Soon



A new TAC report featuring recommended practices for the signing of safe operating speeds on off and on-ramps will be released soon.

Motorists are informed of the appropriate speed limit to observe on interchange ramps by means of either regulatory or advisory signs. However, it is rarely feasible to provide ramp design speeds that are of the same magnitude as the main roadway where the ramp connects. Ramps are an inherent threat

to safe travel because of their operating speed inconsistency.

The appropriate design speed for a ramp is based on many factors, including surroundings, length of acceleration and deceleration lanes, ramp terminal treatment and composition of traffic.

Field conditions and project constraints often cause deviations in the design of interchanges and associated ramps that create potential hazards for motorists.

Recommended Practices for Posting Ramp Speeds provides guidance for ramp speed setting and signing to control vehicle speed on ramps, including different speed limits for various types of vehicles.



The report proposes an amended version of a ramp advisory speed limit sign contained in TAC's *Manual of Uniform Traffic Control Devices for Canada*. In order to encourage uniformity across Canada, a new section will be added to the manual to provide some guidance on the exit speed panel, often used to provide additional emphasis for motorists of unusually low advisory speeds, or when a ramp advisory speed limit sign cannot be placed in the desired location.

The project was initiated by TAC's Traffic Operations and Management Standing Committee and conducted by **Intus Road Safety Engineering Inc.**

A publication notice will be posted on TAC's website once the report becomes available. 

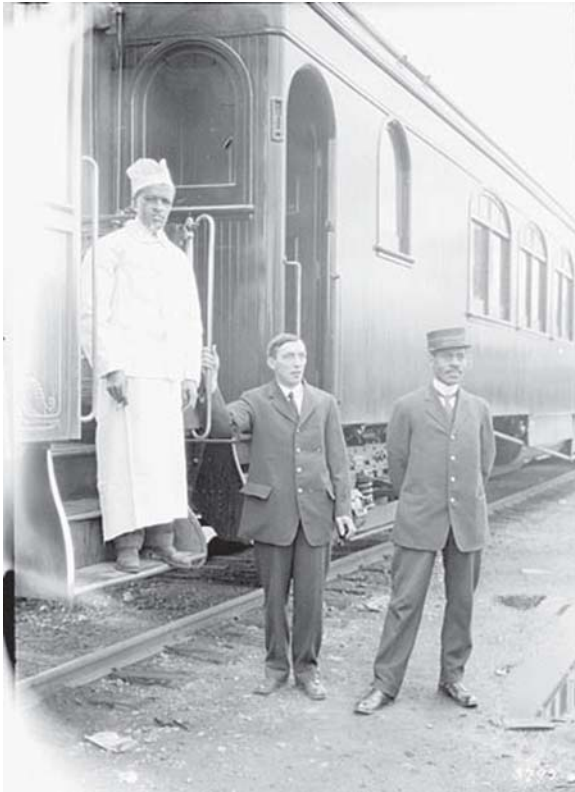
A Moment in Time – Historical Milestones in Transportation

As a prelude to TAC's centennial in 2014, TAC News introduces A Moment in Time, a column featuring historical anecdotes showcasing milestones in transportation. Montreal will host the association's 100th birthday celebrations, providing an opportunity to highlight important Canadian achievements in the transportation sector.

TAC's origins date back to **1914**, when the Canadian Good Roads Association was founded.

On April 7, 1914, the Grand Trunk Pacific Railway, linking Winnipeg via Melville and Edmonton to Prince Rupert, British Columbia, was completed.

The 4800-kilometre system faced severe competition from the Canadian Pacific Railway and the Canadian Northern Railway. Construction costs, exigencies of wartime financing and a lack of a viable system of branch lines brought the Grand Trunk Pacific Railway into receivership in 1920. The railway's operations merged with the Canadian Northern Railway in 1923 to form the Canadian National Railways System. 



Dinning staff and porter, Grand Trunk Pacific Railway, 1914

Photo: Library and Archives Canada

PEOPLE IN THE NEWS

Fred Cummings has been appointed President and General Manager of the British Columbia Rapid Transit Co. Ltd., the operating company responsible for SkyTrain and West Coast Express in Vancouver.

At Delcan Corporation, **Joanne McCall** has been promoted to Division Vice-president, Structures. She will be responsible for all areas of the structures division including operations, strategic planning and business development.

Nathan Higgins has joined HDR Corporation as Associate Vice-president and will lead the firm's rail and transit engineering practice across Canada. He will be based in the Calgary office.

Jason Dunn has succeeded **Raheem Dilgir** as Vice-president responsible for Opus International's Calgary operation. Raheem is now Manager of Transportation, Department of Engineering, at the Corporation of Delta.

Chris MacEachern has been appointed Director of Strategic Business Execution for Tetra Tech's Infrastructure and Environmental Division.

At McCormick Rankin Corporation, **Geoff Millen** has been appointed Manager of the Halifax office, and has taken over leadership of MMM Group Limited's Road Safety practice. He will succeed **John Robinson**, who has retired from the company and has joined Flood Murray International, Inc. as a Senior Partner.

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COMING EVENTS ~ 2011

CONEXPO-CON / AGG

March 22-26
Las Vegas, Nevada
Toll-free: (800) 867-6060
www.conexpoconagg.com

2011 Design-Build for Transportation Conference

March 28-30
Kansas City, Missouri
Tel. (202) 686-6614
www.dbtranspo.com/

Technical Conference of the Institute of Transportation Engineers

April 3-6
Lake Buena Vista, Florida
Tel. (202) 785-0060
www.ite.org/meetcon/index.asp

9th Urban Transportation Summit

April 6 and 7
Toronto, Ontario
Tel. (416) 944-9200
www.urbantransportation.ca

Annual Conference of the Association québécoise du transport et des routes

April 11-13
Montreal, Quebec
Tel. (514) 523-6444
www.aqtr.qc.ca

TAC Spring Technical Meetings

April 14-18
Ottawa, Ontario
Tel. (613) 736-1350
www.tac-atc.ca

Annual Conference of the Canadian Urban Transit Association

May 29-June 1
Regina, Saskatchewan
Tel. (416) 365-9800
www.cutaactu.ca/en/eventsandawards/events_awards.asp

Annual Conference of the Canadian Transportation Research Forum

May 29-June 1
Gatineau, Quebec
Tel. (519) 421-9701
www.ctrf.ca/

Annual Conference of the Canadian Institute of Transportation Engineers

May 29-June 1
Halifax, Nova Scotia
Tel. (202) 289-0222
www.cite7.org/Halifax2011/index.php

Annual Conference of the Federation of Canadian Municipalities

June 3-6
Halifax, Nova Scotia
Tel. (613) 907-6212
www.fcm.ca/

Annual Conference and General Meeting of the Intelligent Transportation Systems Society of Canada

June 12-15
Vancouver, British Columbia
Tel. (905) 471-2970
www.itscanada.ca

Annual Conference of the Canadian Society for Civil Engineering

June 14-17
Ottawa, Ontario
Tel. (514) 933-2634
www.csce.ca/2011/annual/

Annual Conference of the Canadian Institute of Planners

July 10-13
St. John's, Newfoundland
Tel. (613) 237-7526
www.cip-icu.ca

Annual Meeting and Exhibit of the Institute of Transportation Engineers

August 13-16
St. Louis, Missouri
Tel. (202) 785-0060
www.ite.org/meetcon/index.asp

5th Intertraffic China Trade Fair

September 7-9
Beijing, China
www.intertraffic.com

TAC Annual Conference & Exhibition

September 11-14
Edmonton, Alberta
Tel. (613) 736-1350
www.tac-atc.ca

XXIVth PIARC World Road Congress

September 26-30
Mexico City, Mexico
www.piarcmexico2011.org

2nd International Warm Mix Conference

October 11-13
St. Louis, Missouri
Tel. (888) 468-6499
www.hotmix.org/warmmix

5th Asphalt Shingle Recycling Forum

October 27-28
Dallas, Texas
Tel. (202) 493-3097
www.shinglerecycling.org

Fall Conference and Trans-Expo of the Canadian Urban Transit Association

November 5-9
Toronto, Ontario
Tel. (416) 365-9800
www.cutaactu.ca/en/eventsandawards/events_awards.asp

Knowledge Management Framework Report Available Online

A report entitled *Knowledge Management Framework* is now available as a free download in the association's online resource centre.

Knowledge management is a multi-faceted practice, incorporating a wide range of techniques to address the many elements that can help an organization maximize the use of existing and available knowledge. This is largely being driven by the identified need to retain the institutional memory of the increasing numbers of skilled workers approaching retirement age.

The report provides background and key definitions, presents a framework of knowledge management activities, and describes an implementation process.

Translation of the report is in progress and the French version will be posted on TAC's website in the near future.