



New Project Focuses on Road Network Performance Measures

TAC has launched a project aimed at developing Canadian guidelines for the performance measurement of road networks.

Performance measurement is increasingly being implemented as a core component of management processes in public sector agencies to evaluate program efficiency and effectiveness. In the transportation sector, it is included in pavement management and bridge management systems and will be integrated in construction and maintenance management systems, as well as operations and safety programs.

The types of performance measures and implementation practices for road networks vary significantly among jurisdictions. The TAC project is expected to identify performance measures required to effectively manage rural highway infrastructure, as well as to address general strategies, goals, objectives and asset management principles. It will also identify best practices for roadway performance measurement that could be used by all jurisdictions across the country.

Recommended by TAC's Maintenance and Construction Standing Committee and approved by the Chief Engineers' Council, the project was initiated after a survey which investigated how governments across Canada use performance measurement systems.



A project steering committee will develop the terms of reference and choose a consultant in the near future. The project schedule calls for completion of the work in the fall of 2011.

The effort is being funded by: **Transport Canada, Alberta Transportation, Manitoba Infrastructure and Transportation, the New Brunswick Department of Transportation, Nova Scotia Transportation and Infrastructure Renewal, the Ministry of Transportation of Ontario, Saskatchewan Highways and Infrastructure, Yukon Highways and Public Works** and the **City of Winnipeg**. 

Urban Transportation Indicators Survey to Be Published

TAC will soon release a detailed summary of the results of the fourth edition of its urban transportation indicators survey.

The survey report is based on data gathered during the 2006 Canadian census for 33 census metropolitan areas (CMAs), in addition to supplementary data collected via a TAC survey of participating agencies.

The report contains data from the 31 CMAs that responded to the TAC survey, which looked at the status of transportation and land use initiatives, transportation financing, and land use and transportation. Also included are Kent Marketing data on fuel sales and summary statistics from the Canadian Urban Transit Association.

The urban transportation indicators (UTI) survey series was established by TAC's Urban Transportation Council in 1994. The UTI surveys assess



progress by Canadian urban areas on key sustainable transportation initiatives. These initiatives are based on 13 decision-making principles supporting a desirable future transportation system and associated land use identified in TAC's *New Vision for Urban Transportation*.

The survey has now grown into one of the most significant sources of data on urban transportation. The survey program's goal is to provide consistent transportation and related data for Canadian urban areas from which trends can be analyzed both among urban areas and over time.

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Urban Transportation Indicators Survey (cont'd from p. 1)

The main purpose of the report is to provide data from the current and previous three surveys, along with some interpretation of the trends and potential causal relationships. The report is structured to present data and trends based on key areas. Municipalities are grouped by their CMA population.

Project work that led to the preparation of the report was conducted by the **IBI Group** under the supervision of a steering committee. The project was initiated by TAC's Transportation Planning and Research Standing Committee.

The fourth UTI survey report will be available as a free download from the TAC website in the near future. A Microsoft Access database, which includes data from all four surveys, will be available for sale from TAC's online bookstore. 

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As part of TAC's eco-friendly meeting initiatives, the 2010 conference **CALL FOR PAPERS IS ONLY AVAILABLE ONLINE** at www.tac-atc.ca. Prospective authors should note that paper proposals must also be submitted online.

THE DEADLINE FOR ABSTRACT SUBMISSIONS IS JANUARY 26, 2010.

For more information on the 2010 conference, contact Gilbert Morier (gmorier@tac-atc.ca) at the TAC secretariat.

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TAC is a national 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.

Funding Secured for Review of Traffic Sign Sheeting Requirements

A new TAC project has received the necessary sponsor funding to develop a guide for traffic sign sheeting requirements that take into account the needs of aging drivers.

In recent years, sign sheeting manufacturers have introduced new high performance products that significantly increase night-time visibility of signs and delineators. The brighter a sign or delineator, the easier it is for drivers to see.

The legibility of a sign should also be assessed to take into account the level of retro-reflectivity. The new types of sheeting vary in retro-reflectivity levels depending on the angle of incident light.

In recommending sign sheeting requirements for different sign types and delineators, consideration is given to the needs of aging drivers, the properties of new high intensity prismatic products, driver seating height, different headlight designs, specifications currently used by road authorities and the brightness of sign sheeting.

The guide will recommend sign sheeting requirements for regulatory, warning and temporary condition signs, overhead and ground-mounted guide signs, as well as different categories of delineators.



A review of sign sheeting types used by road authorities, as well as current standards for sign sheeting, will be included in the project work. Updates to TAC's *Manual of Uniform Traffic Control Devices for Canada* may also be prepared.

A newly formed project steering committee will select a consultant to conduct the assignment in the coming months. Recommended by TAC's Traffic Operations and Management Standing Committee, the project is expected to be finalized by the spring of 2011.

The project is being sponsored by: **Transport Canada, Alberta Transportation, Manitoba Infrastructure and Transportation, the New Brunswick Department of Transportation, Newfoundland and Labrador Transportation and Works, Nova Scotia Transportation and Infrastructure Renewal, the Ministry of Transportation of Ontario, the Ministry of Transport of Quebec, Saskatchewan Highways and Infrastructure, Yukon Highways and Public Works, the cities of Cambridge, Edmonton, Montreal and Ottawa, Halifax Regional Municipality and the International Municipal Signal Association.** 

Briefing on Transportation Engineering Skills in 2020 Now Available

A new TAC briefing, entitled *Transportation Engineers of 2020: What Skills Will They Need?*, has recently been released.

The transportation engineering field is undergoing continuous changes in various areas including technology, climate change adaptations, market characteristics, as well as sustainability requirements. In order to embrace the challenge of change, engineers must possess the appropriate skill sets.

The briefing, which covers a cross-section of industry and professional practitioners, identifies prioritized skill set requirements for the civil engineer of 2020, ranging from early to mid-career to senior levels. It was developed following a 2008 TAC annual conference workshop sponsored by the association's Education and Human Resources Development Council.

Members are invited to read the briefing which has been posted in the TAC website Resource Centre, under Briefings. 

2010 Membership Notice

TAC's 2010 Membership Directory will be in production early in the new year. In mid-November, members were asked to confirm the accuracy of their membership contact information by responding to a "secretariat" email from TAC. A current record ensures the value of this practical member tool.

Members can also opt to receive the membership directory in CD rather than paper format.

Any member representatives who did not receive this email should contact Sylvie Rozon (srozon@tac-atc.ca) as soon as possible to confirm their member information.

Membership dues invoices for 2010 were mailed in early December. Members paying prior to December 31, 2009 will be eligible for a draw to receive a free 2009 TAC publication of their choice.

As in recent years, the association has not increased its 2010 fees for any membership category. 

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Funds Set Aside for TAC Centennial

The TAC Board of Directors recently earmarked funds required for the planning and delivery of the association's centennial celebrations in 2014.

The total estimated amount needed for centennial activities was set aside from the association's unrestricted reserves, subject to subsequent approval of annual budget submissions to the Board.

This action was recommended by TAC's newly formed Centennial Oversight Committee whose terms of reference were also approved by the Board at its October meeting.

In its submission to the Board, the Oversight Committee affirmed its support of the centennial celebration planning framework and funding model that TAC's directors endorsed in principle last spring.

Developed by a public relations consultant, the plan calls for a range of activities, including some sponsored initiatives, to mark the 100th anniversary of the association. The celebrations will focus both on the organization's past and present successes, as well as on the important role that transportation plays in Canada's social and economic development. 

FOUR TECHNICAL PROJECTS GIVEN GREEN LIGHT

Three new TAC projects have recently been approved by the Chief Engineers' Council and a fourth by the Urban Transportation Council.

Sponsorship funding is now being sought for the projects which deal with green roads, applied human factors and road safety engineering, pedestrian walking speed and wider pavement markings.

Green Guide for Roads

Initiated by TAC's Green Guide for Roads Task Force, a new sponsored project will build on the substantial work already done by the group and result in a green roads guide with national applications.

Although it reports to the Urban Transportation Council, the task force has representation from virtually every TAC standing committee.



Transportation agencies throughout Canada are facing declining material resources, challenges with climate change, greenhouse gas emissions and a societal movement supporting sustainable development. Tools are needed for practitioners to support the development and implementation of green practices and green roads.

The *Green Guide for Roads* will promote sustainable growth and alternative multi-modal transportation solutions within roadway corridors, along with safe, long-lasting road infrastructure and green construction principles. The guide will provide guidance on roadway planning, design, construction, commissioning, maintenance and operations, as well as life cycle assessment activities. It will also address the full functional hierarchy of roads in both urban and rural settings.

A key objective of this project is to develop and document a detailed performance measurement / rating system applicable to the major categories of roadways including freeways, arterials, collectors and local roads.

Applied Human Factors and Road Safety Engineering

The association's Road Safety Standing Committee has identified a need for a human factors resource to support Canadian road sector practitioners. Although there are a number of such resources currently available, most primarily target human factors specialists and may not meet the needs of road practitioners.

The major objective of this project, which was approved by the Chief Engineers' Council, will be to develop an applied human factors text

structured for highway designers, traffic engineers and road safety practitioners in rural and urban environments in this country.

Work on the project will include the review of new and emerging human factors and road safety resources and the preparation of a new text to complement other publications in TAC's road safety series.

The resulting practical handbook is expected to be structured to consider design elements that impact road users such as cross-sections, intersections and interchanges. It will also address road user errors, potential countermeasures and treatments. Specific urban and rural issues and human factors problems, including signing and speed management, will also be covered.

While the U.S. Transportation Research Board is developing human factors guidelines, it is thought that the focus will be on driver requirements and highway design guidelines. The aim of the TAC project is to develop a publication that will explicitly integrate safety within the discussion of human factors, be more holistic in its approach and provide Canadian examples based on local experience.

Pedestrian Walking Speed Guidelines

A project put forward by TAC's Traffic Operations and Management Standing Committee will result in pedestrian walking speed guidelines and recommended revisions to the *Manual of Uniform Traffic Control Devices for Canada*.

The major objective of this project, which was approved by the Chief Engineers' Council, is to modify section B4 of the traffic control manual and specifically its references to pedestrian walking speed. This will eliminate reliance on other technical documents related to pedestrian walking speed at signalized intersections and explicitly address Canadian research and references on this issue.

Work will focus on reviewing recent literature on pedestrian walking speed, as well as on investigating pedestrian walking speed at signalized intersections, including the design, development and conduct of a data collection program in selected jurisdictions over different seasons.

Among the elements to be investigated are: pedestrian walking speed at signalized intersections as a function of age and gender; speed of pedestrians who use assistive devices for mobility; the effect of pedestrian countdown signals on walking speed; and the effect of seasons on walking speed, taking into account age, gender and use of assistive devices.

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**HOLIDAY GREETINGS
FROM THE TAC STAFF!**



Please note that the TAC office will close on the afternoon of Thursday, December 24 and reopen on Monday, January 4.

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It is expected that the scope of the project will be limited to three major urban areas in the country, that is one each from Eastern, Central and Western Canada, although this might be modified depending on project participants.

Wider Pavement Markings

Another new sponsored project proposed by the Traffic Operations and Management Standing Committee is aimed at establishing guidelines for wider longitudinal pavement markings in Canada. Recommended revisions to TAC's *Manual of Uniform Traffic Control Devices for Canada* will also be prepared to reflect these guidelines.

Section C1 of the manual addresses widths and patterns of longitudinal pavement markings, indicating that a normal line is 100 to 150 mm wide.

Most Canadian jurisdictions use a 100 mm wide line. However, the visibility of pavement markings might be enhanced if jurisdictions adopted the upper line width limit of 150 mm. This may be particularly true when using water-based paints, which can only be applied at certain times of the year and may be less durable than alkyd paints.

The major objective of this project is to investigate the benefits and effects of wider longitudinal pavement markings for standard applications and to develop guidelines for their use in Canada.

Tasks will include reviewing existing research on the use of wider longitudinal pavement markings, as well as practices and experiences of Canadian and selected American or international jurisdictions where wider pavement markings are used. The project will also seek to determine whether the 150 mm wide line width is appropriate for standard applications of line types, that is centrelines or edge lines. ☐

Strengthening TAC's Domestic and International Partnerships

TAC's Board of Directors has committed to strengthening its domestic and international partnerships as part of the association's new business plan.

TAC plays an important national role in facilitating networking and information sharing within an evolving transportation sector. One of the ways TAC fulfills this objective is by maintaining partnership agreements with other associations and developing new strategic relationships.

By broadening the perspectives of its councils and committees and sharing the knowledge and expertise of its partners, TAC is identifying opportunities to increase value for current and prospective members.

Partnership agreements also help solidify relationships between organizations by creating a sense of engagement and portraying a positive image.

The focus of collaboration between TAC and its partner organizations mainly relates to information exchange such as technical publications and library resources; technical exchange including joint research or projects; product sharing, development and delivery; and professional development.

TAC currently partners with two international organizations, the American Association of State Highway and Transportation Officials (AASHTO) and Austroads.

As well, domestic partnership agreements exist with several organizations:

- ◆ Association québécoise du transport et des routes (AQTR)
- ◆ Canadian Society for Civil Engineering (CSCE)
- ◆ Canadian Institute of Transportation Engineers (CITE)
- ◆ Canadian Urban Transit Association (CUTA)
- ◆ Centre for Sustainable Transportation (CST)
- ◆ Federation of Canadian Municipalities (FCM) and
- ◆ Intelligent Transportation Society of Canada (ITS Canada)

TAC will be exploring ways to strengthen its partnership agreements in 2010 and invites its members to provide their comments or suggestions. ☐

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The City of Fredericton's Sustainability Journey: Public Works Commitment

Editor's Note: In this contribution to TAC News, Murray Jamer, director of engineering and public works of the City of Fredericton, New Brunswick, writes about the measures taken by his department to counter climate change and promote sustainability. Proposed by TAC's Climate Change Task Force, this feature is one in a series of articles to profile climate change initiatives of member organizations. Other organizations are encouraged to contact the newsletter editor with a view to submitting articles or briefs highlighting their own projects in this area.

Long before the climate crisis became front page news, the **City of Fredericton** understood the importance of environmental stewardship. For well over a decade, this philosophy has been inherent in municipal decisions and operations at the city. A formal commitment to the philosophy was made in 2000 when the city joined Partners for Climate Protection and embarked on a journey to get its own "environmental house in order" and to measure municipal greenhouse gas (GHG) emissions with the goal of reducing them by 20 per cent by 2010.

Even as early as the 1990s, the City of Fredericton was paying attention to its purchasing and operational decisions as they related to environmental matters. In particular, smart environmental decisions were being made then by the Engineering and Public Works Department. These not only demonstrated environmental stewardship but also resulted in savings, as well as safety improvements both for citizens and city employees.

Close to 20 years ago, when most municipalities were still using oil-based paint for traffic lane markings, the City of Fredericton began to use a water-based product. It was one of the first municipalities in North America to make this change, which translated into a 70 per cent reduction in volatile organic compound (VOC) emissions being released into the air. That change snowballed, generating a switch in all departments from oil-based products to much healthier and more environmentally friendly water-based substitutes. This small decision was in fact a visionary move and the impetus for a wide range of environmental and energy-saving initiatives undertaken by the city in the past decade.

Environmentally Motivated Measures Yield Many Benefits

The city has continued to play a leadership role in the environmental arena and has continuously demonstrated the need and obligation for municipalities to step up and make changes that are as strongly based on environmental criteria as on economic and social criteria. There are many examples of initiatives that strongly adhere to all three criteria. For instance, the Engineering and Public Works Department instituted the city's first anti-idling initiative for all departmental vehicles and machinery. This has drastically reduced emissions, as well as fuel and vehicle maintenance costs, while ensuring cleaner air for employees and residents alike.

“ All of the environmental initiatives rolled out over the past decade have contributed to the City of Fredericton's overall goal of reducing GHG emissions by 20 per cent in municipal operations by 2010. ”

Such projects extend to the city's roads and streets as well. A streetlight rationalization program began in 2005. As of 2008, the program, which saw the wattage on 872 of 4,000 utility-owned fixtures reduced, has resulted in a savings of 250,000 kilowatt hours (kWh) a year.

In addition, new road developments must have more efficiently spaced streetlights and lower wattage fixtures. Between 2000 and 2008, GHG emissions associated with new streetlights have dropped by over 40 per cent!

The conversion of traffic signals from incandescent to light-emitting diode (LED) bulbs was completed in 2007, which means that today every traffic signal in the city operates more efficiently. This has resulted in a 70 per cent reduction in energy consumption and saves approximately 1,552 kWh for each traffic signal every month. LED traffic signals offer many other advantages as well,

including longer bulb life, lower maintenance, increased safety with no sudden failure, and reduced sun interference.



In recognition of its innovative and effective initiatives, the City of Fredericton was awarded the 2006 National Pollution Prevention Award for Greenhouse Gas Reduction by the Canadian Council of Ministers of the Environment. Fredericton was the first municipality in the country to receive this award since its inception in 1997.

Warm-mix Asphalt Test to Reduce Greenhouse Gas Emissions

The City of Fredericton's commitment to GHG reduction and innovative, environmentally sensitive solutions continues to evolve as it pursues current and future policies and actions that will put the community firmly on the road to sustainability.

Coming soon will be a pilot project to test warm-mix asphalt, a technology whose use is growing across the country. For each tonne of mix produced, this practice decreases fuel consumption at the plant by

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20 to 35 per cent and GHG emissions by 20 to 35 per cent. It also translates into better working conditions for employees and quicker paving times. The Roads and Streets Division is looking forward to testing this new product and to furthering the commitment to environmentally sound practices.

All of the environmental initiatives rolled out over the past decade have contributed to the City of Fredericton's overall goal of reducing GHG emissions by 20 per cent in municipal operations by 2010. Supporting this, between 2000 and 2008 – the last year in which progress was measured, the city reduced GHGs from municipal operations by an astounding 17 per cent, putting it within three per cent

of its target for 2010. This nationally acclaimed result was made possible by all departments and divisions working together, each making small and big decisions that continue to reduce the city's environmental footprint.

“ The conversion of traffic signals from incandescent to light-emitting diode (LED) bulbs was completed in 2007, which means that today every traffic signal in the city operates more efficiently. ”

The journey is not over – many climate change experts would say it has only begun. As for the City of Fredericton, with just a short timeframe remaining to reach its 20 per cent GHG reduction target, staff is optimistic that this goal is achievable. More importantly, the foundations have been firmly set for Fredericton to continue on the road to

becoming a truly sustainable community.

Being environmentally conscious is not always the easy choice for municipalities but, for Fredericton, it is the right choice. ☐



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TAC Updates Its Publication Pricing Policy

The hard copy, electronic and CD versions of any new TAC publication will now be sold at the same price.

Recently adopted by TAC's Board of Directors, the updated pricing policy is based on the value of the contents of the association's publications and also reflects the approach assumed by similar organizations.

Publications are the most visible legacy of TAC's technical program and serve as a valuable resource to both members and the transportation community at large.

With the evolution into more e-publications and eventually to paperless publishing of all new publications that are appropriate for e-format, a more explicit policy for pricing of e-publications was required. TAC undertook a review and recognized that an update to the overall pricing policy was also required.

TAC's broad publication pricing policy is based on market value pricing, which weighs several factors, including the number of pages, perceived value and nature of the publication, before calculation of the final price for both members and non-members. In most cases, pricing for a given publication has varied depending on the format, that is, CD or hard copy.

Research demonstrated that similar organizations are selling most publications at little or no price differential based on format.

Recognizing that the value is in the information, regardless of the format in which it is presented, the TAC Board has approved a revised pricing policy for all new publications, while continuing to reflect the market value philosophy.

Effective immediately, as new publications are released, the hard copy, electronic and CD versions of any given publication will be offered at the same price. There will be no change to pricing of existing publications and other pricing policies such as bulk discounts will remain the same.

TAC has also just released a new edition of its publications catalogue, which provides full details on its many manuals, guides and technical resources including all of the latest titles. A PDF version of the catalogue is now available in TAC's online bookstore. ☐

Report Makes Recommendations on Collection of High-quality Urban Goods Movement Data

A TAC project has resulted in the development of a recommended framework and a program outline for gathering high-quality data on urban goods movement in Canada.



Despite its urban focus, the framework also covers interurban goods movement data collection as most interurban goods activity is generated through an urban activity at least at one end.

The data on urban goods movement is primarily needed for planning and investment decisions. Transportation practitioners also recognize the need for proper goods movement data to address traffic safety and operations, demand management and sustainable transportation issues, including climate change and, increasingly, air quality and public health issues.

As part of the project, a user needs survey was conducted and its results show that there is a significant need for detailed information about the characteristics of goods movement trips such as trip origin and destination, routes or itineraries, schedules, mode, time of day, seasonal variations, frequency, cost, intermodal transfer, greenhouse gas emissions, tonnage/volume and commodity carried, and vehicle type.

The survey also identified a need for commodity flow data with broad geographic coverage. There is very little information about the interurban, domestic, cross-border or international flows of goods that move through the supply chain.

As well, best practice guidance and common standards and definitions for all aspects of urban goods movement data are required. This applies both to surveys and ancillary data like traffic counts and travel time surveys.

	Commodity Flow Surveys	Origin-destination Surveys (Trips)
Urban	Edmonton, Calgary and Peel Region	Edmonton, Calgary and Peel Region
Interurban	<i>Proposed</i>	Senior Governments – National Roadside Survey

In addition, the survey found a need for education and awareness in the area of goods movement issues, best practices in goods movement planning and the application of data to planning.

The project report proposes a framework for gathering high-quality data for urban goods movement that has at its core two dimensions:

- ◆ two types of surveys – origin-destination trip surveys and commodity flow surveys; and
- ◆ geographical scale, that is urban areas and interurban areas.

Together, these two dimensions yield a four-part core framework, as illustrated conceptually in the table.

The project report cites three Canadian municipalities – Edmonton, Calgary and the Regional Municipality of Peel (Ont.) – for their development of best practices to carry out urban commodity flow and origin-destination surveys. As for best practices for a Canadian interurban origin-destination survey, the report cites the federal, provincial and territorial governments, which jointly conduct a national roadside survey intended to fill gaps in data on heavy, long-haul trucking.

An interurban commodity flow (CFS) survey does not exist in Canada. As proposed in the TAC framework, a Canadian interurban CFS would be based on the current U.S. commodity flow survey and also expand the scope of the American exercise.

The results of this project also proposed an implementation strategy to advance the identified needs and develop the framework.

Initiated by the Transportation Planning and Research Standing Committee of TAC's Urban Transportation Council, the project was carried out by **HDR | ITRANS** under the supervision of a steering committee.

The project report will be available in the near future as a free download from TAC's website.



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Vancouver Draws Huge Turnout for TAC 2009

More than 900 delegates attended the 2009 TAC annual conference in Vancouver, making the event one of the largest held in many years.

In keeping with the massive turnout, a total of 65 exhibit spaces were taken for the transportation products and services show held in conjunction with the conference.

Numbers were, of course, just one facet of the TAC conference which ran from October 18 to 21. Delegates and companions – some 110 of them – will remember the event for its various program streams, vibrant West Coast setting and friendly hospitality.

A rich and varied technical program of close to 45 sessions, panel discussions and workshops, along with a full complement of tours of area developments including Olympic venues and related infrastructure, was delivered during the event. Many activities, including the opening

plenary session, explored the conference theme of *Transportation in a Climate of Change*.

As well, about 50 council and committee meetings were convened in the days leading up to the conference and at the start of the event.

Co-hosting the conference were the **British Columbia Ministry of Transportation and Infrastructure**, the **City of Vancouver** and **TransLink** (South Coast British Columbia Transportation Authority). They organized a range of social and other activities and services that wowed attendees. Among them were a highly rated companion agenda and a memorable evening at the Vancouver Aquarium.

Leading the enthusiastic local organizing team and large volunteer contingent was project manager Tracy Houser of the provincial ministry. ☐

Conference chair **Shirley Bond**, minister of transportation and infrastructure for British Columbia, gave the lead address on *Transportation in a Climate of Change* at the Opening Plenary Session. The session was chaired by **John Law**, deputy minister of highways and infrastructure for Saskatchewan, who was later re-elected for a second one-year term as president of TAC.



Attendees watch with anticipation as dim sum is heaped into woks at the Welcoming Reception.



Also speaking at the Opening Plenary Session were (from left to right) **Gary Liddle**, VicRoads chief executive and Austroads deputy chair, **John Horsley**, executive director of the American Association of State Highway and Transportation Officials (AASHTO), and **Thomas Prendergast**, chief executive officer of TransLink.



The award for the best exhibit at the Vancouver conference went to **ARMTEC**.



TAC president **John Law** (left) shakes hands with Louis Ranger, former federal deputy minister of transport, infrastructure and communities, who received an honorary life membership in the association for his valuable contributions to the development of the transport sector in Canada.



Signs held by local volunteers provide a good sampling of the technical tours organized for delegates.

Edmonton city manager **Robert Boutilier** was the winner of the draw prize offered to delegates who completed the online post-event survey. His prize was an original Vancouver 2010 Inukshuk sculpture.



Delegates and companions saw big fish and small fish, as well as the occasional otter, when they “explored the ocean floor” during the social event held at the Vancouver Aquarium. Attendees had the run of the country’s largest aquarium and made good use of it!



A poster entitled “Seasonal Load Restrictions on Low Volume Highways: Pavement Strength Estimation” was selected for an award for the best contribution to the poster session on pavements. The author was **Jeffrey Chapin** (right), a graduate student, and the co-authors were **Juan Pernia** (left), assistant professor, and **Bruce Kjartanson**, associate professor, all from Lakehead University in Thunder Bay.

Recipients of other TAC awards are listed on the association’s website (see link on homepage). Also see the fall 2009 issue of *TAC News* for articles on the winners of certain major awards.



Drummers from the Squamish Nation of the Four Host First Nations welcome guests to the Annual Banquet.

Hats off to the 2009 Canadian Transportation Award Recipients

The closing banquet of the 2009 TAC annual conference was the venue for the recognition of six recipients of the Canadian Transportation Awards.

The award winners included Andrew Horosko, former deputy infrastructure and transportation minister of Manitoba, who was named Transportation Person of the Year.

Launched in 2005 with the support of **Transport Canada**, the Canadian Transportation Awards Program (CTAP) is intended to recognize leadership, excellence and achievement in all modes and segments of the transport sector.

In a joint announcement with TAC president **John Law**, deputy minister of highways and infrastructure for Saskatchewan, federal transport, infrastructure and communities minister **John Baird** noted that the winners had not only distinguished themselves in their fields of expertise but that they had richly contributed to the transportation sector in this country.

An independent panel of judges with multi-modal representation selected the winners after reviewing nominations received from across Canada.

Andrew Horosko was named 2009 Transportation Person of the Year for leadership roles over a career that have contributed to the improvement or advancement of the transportation industry as a whole or any of its modes or segments.

Mr. Horosko spent more than 33 years making significant contributions to support the development and advancement of Manitoba's and Canada's transportation interests in the global marketplace.

His insights into the planning and management of transportation infrastructure have earned him an outstanding reputation for professional excellence and leadership in national and international transportation forums.

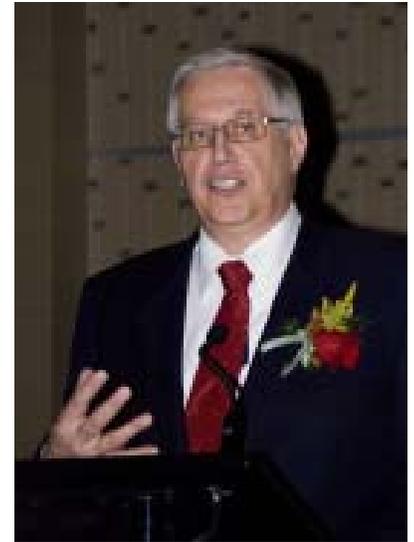
Mr. Horosko, a former TAC president, recently retired from **Manitoba Infrastructure and Transportation** where he served as deputy minister for 16 years. In this role, he led an extensive transition and expansion of departmental responsibilities that contributed to the sustainable, social and economic growth of the province.

Mr. Horosko was instrumental in supporting staff to develop innovative methods to enhance his department's ability to ensure safe and efficient public infrastructure and services.

These methods included the development of unique staff recruitment, training and retention programs, collaborative educational initiatives with colleges and universities in engineering disciplines and continuing professional development opportunities for senior department executives. Mr. Horosko also played a role in advancing international trade and transportation strategies and coordinated departmental resources to create the largest infrastructure initiative ever established in Manitoba.

Two Awards of Excellence were presented during the TAC banquet. This award recognizes an outstanding contribution to the betterment of the transportation industry over several years in such areas as safety, sustainable development, research, technology, policy or corporate development.

Andrew Horosko, former deputy minister of infrastructure and transportation of Manitoba, was named Canada's Transportation Person of the Year for 2009. Mr. Horosko was honoured for nearly 35 years of contributions to the development and advancement of Manitoba's and Canada's transportation interests.



The first award was conferred on **Mavis Johnson** for applying her extensive road safety experience to the implementation of key educational programs.

With over 40 years of experience in developing and managing engineering, enforcement and education programs, Mrs. Johnson initiated the **Canadian Traffic Safety Institute** in 2005. As president of the Burnaby, B.C. organization, she orchestrated a progress report on Canada's road safety strategy – *Road Safety Vision 2010* – for the Canadian Council of Motor Transport Administrators.

Mrs. Johnson worked as a consultant to implement Alberta's traffic safety plan and developed a strategic road safety framework for Nova Scotia. She has also been a consultant on numerous international projects.

Sheri Plewes received the second Award of Excellence for her significant contribution to transportation planning in the Vancouver region.

As vice-president of capital management and engineering of **TransLink** (South Coast British Columbia Transportation Authority), Ms. Plewes led the development of the region's long-term strategy, *Transport 2040*, in 2008. She also spearheaded the creation of TransLink's 2010 ten-year plan, which seeks to implement an aggressive investment program across multiple service modes.

Ms. Plewes was responsible for the implementation of a \$2.5 billion capital program for major bus and rail vehicle procurement, the construction of new transit operation and maintenance centres and the administration of road funding programs.



Sheri Plewes (second from right), vice-president of capital management and engineering of TransLink (South Coast British Columbia Transportation Authority), received the Award of Excellence. Presenting the award was Hon. **John Baird** (right), minister of transport, infrastructure and communities for Canada, along with conference chair **Shirley Bond** and TAC president **John Law**.

The 2009 recipients of the Award of Achievement were **Aziz Amiri**, in recognition of his contribution to road safety in Quebec, and **Fred Cummings**, for his contribution to the improvement of British Columbia's transportation system.

Candidates for this award must have achieved, through innovation and initiative on a particular project or program, positive and measurable improvements of significant and enduring benefit to transportation.

A pavement engineer for the **Ministry of Transport of Quebec**, Mr. Amiri has worked on adherence measures on gravel roads and snow-covered pavement that have greatly contributed to a drop in accidents on reduced adherence surfaces. He has also provided creative solutions to structural and functional performance problems which significantly improved the competitiveness of Quebec's road network.

As vice-president of major construction projects at **TransLink** since 2006, Fred Cummings led the organization's role in the Canada Line rapid transit project and is currently working on the Evergreen Line and the replacement of the Pattullo Bridge.

Starting in 2002, Mr. Cummings oversaw the development and implementation of the Vancouver Golden Ears Bridge, which opened to traffic last June. The project received several awards for its creative approach to transportation infrastructure development.

This initiative resulted in over \$1 billion in direct economic activity. The scope of the project included a six-lane, cable-stayed bridge with electronic tolling and 13 kilometres of improved road network, as well as pedestrian and cycling facilities.

Abd El Halim Omar Abd El Halim received the Award of Academic Merit, which recognizes a long-term contribution to the advancement of the academic field and to the development of tomorrow's transportation leaders.

Mr. Halim is the chair of the civil and environmental engineering department and a professor at **Carleton University**, in Ottawa. In 1987, he was appointed director of the university's Centre for Geosynthetics Research Information and Development.

Mr. Halim has established Carleton University as a leading international research centre in transportation engineering, asphalt pavements and geosynthetics.

He recently led the development of two new academic programs for his university. The first, a graduate program, established a master's in infrastructure protection and international security. The second program is an undergraduate effort focusing on conservation and engineering sustainability.

Mr. Halim is the inventor of the AMIR asphalt roller. His research team recently completed the design and fabrication of an advanced second generation of the first in-situ asphalt shear test machine. 

TAC FOUNDATION

Commitments Soar to \$1.15 Million

Thanks to the generous support of its donors, TAC Foundation funding rose to new heights in October when contribution commitments reached the \$1.15 million mark.

With \$800,000 in scholarships distributed to date, the Foundation's scholarship program continues to promote the pursuit of higher education in transportation-related disciplines and to raise the visibility of the transport sector in Canada.

The Foundation welcomed three major new donors to its list of supporters: **Hatch Mott MacDonald Ltd.** and **Morrison Hershfield Limited** in the gold category and **The Esch Foundation** in the bronze category.

As of November, a number of major donors had renewed their multi-year commitments: **3M Canada Company**, **Delcan Corporation** and **Stantec Consulting Inc.** (gold), as well as **ISL Engineering and Land Services Ltd.** and **Halifax Regional Municipality** (silver).

Applications Now Accepted for 2010-11 Scholarships

Members are invited to encourage the next generation of Canadian transportation professionals to apply to receive one of the college level, undergraduate and postgraduate scholarships ranging in value from \$3,000 to \$10,000.

The application form for the 2010-11 scholarships and full eligibility criteria can

now be viewed online at www.tac-foundation.ca. The application deadline is February 12, 2010.

Foundation Seeking Volunteers

With the success of the Foundation's fundraising initiatives, the need for communications and recognition remains a top priority.

The Foundation is eagerly seeking volunteers to join the Foundation Communications Committee to assist in the implementation of effective communications. Interested members are invited to send an email to foundation@tac-atc.ca for additional information. 

TAC'S SPONSORED PROJECT BUSINESS MODEL – TEN YEARS LATER

After nearly 10 years of experience accumulated with the sponsored project model, TAC's current business plan calls for a review of the approach.

The first sponsored projects were conducted in 2000-01 under the auspices of the Chief Engineers' Council. That year, four projects were initiated with just under \$250,000 funding provided by only eight sponsors. Since then, all of TAC's councils have undertaken sponsored projects, over 60 projects have been launched and more than \$5 million has been contributed by a wide variety of association members and non-members.

In 2009-10 alone, 16 sponsored projects are being developed with anticipated funding approaching \$1.5 million.

With this success in mind, TAC's new business plan directs that a review be undertaken to assess the need and opportunity to improve the project development process without changing the fundamental characteristics of the model.

TAC's Role and Contribution in Sponsored Projects

The success of the sponsored project model is due in large part to TAC's fertile environment for the development and conduct of cooperative projects, which provides:

- ◆ a variety of forums for transportation professionals to share perspectives and identify projects or issues of mutual interest;
- ◆ a network of leading experts in the transportation sector to contribute to projects or validate them;
- ◆ an institutional mechanism for pooling resources, contracting and managing collaborative initiatives;
- ◆ a professional staff to manage or undertake projects; and
- ◆ a recognized, credible "name" in the Canadian and international transportation community.

The Model in Practice

Any TAC committee, task force, working group or council may conduct sponsored projects.

The process generally begins with identification of an issue and recognition of a need for research or a particular product. An individual may bring an idea forward or it may be generated by group meetings.

A short description of a proposed project, addressing the research or product need, is developed. There is no required format for the description but a project proposal form is available on TAC's website to assist individuals and committees. The form suggests that consideration be given to the major objectives to be achieved, key tasks and expected deliverables.

If a project is proposed by a committee, the support of an oversight council is sought. Anticipated resource requirements for the project are needed at that time. An estimate of the value of a consultant assignment and the duration of the contract should also be agreed upon by committee and council members.

The TAC secretariat estimates additional costs to conduct the project, accounting for translation requirements, staff time and meeting arrangements, based on the expected duration of the project. Budgets for all sponsored projects must include provision for full costing of resources needed from the secretariat. This is considered a fundamental principle.

The secretariat assembles information about all projects recommended and approved by councils and task forces and forwards it to the Executive Committee of the TAC Board of Directors for endorsement. This review is necessary for any work conducted in TAC's name to ensure the association's mandate is respected and policy positions are not advocated.

The secretariat circulates project descriptions and budget requirements for all proposed initiatives to potential sponsors. Council and

committee members, as well as other organizations with related interests, are invited to consider making a contribution to one or more projects. Sponsors determine their level of interest in any project and specify the financial commitment they can make. There is no predetermined contribution amount required of any sponsor for any project.

When sufficient funds have been committed, a project is launched. Sponsors are invited to appoint representatives to the project steering committee (PSC).

Another fundamental principle of the sponsored project model is that sponsors must retain control over management and conduct of the initiative. This control is exercised through the PSC, which consists exclusively of representatives of the project sponsors.

If a project has not been fully funded after a period of time, the secretariat will seek the advice of the recommending body about next steps. Additional potential sponsors may be sought in an effort to meet the funding requirements. In some circumstances, the PSC may be struck to consider whether there is adequate funding to proceed with a portion of the work originally envisioned.

The PSC always has the right and responsibility to make the decision to go ahead with any project with the funding available. Other rights and responsibilities of project sponsors are described on TAC's website.

Through their appointed representatives on the project steering committee, sponsors oversee the conduct of an initiative.

The PSC is responsible for:

- ◆ developing the project terms of reference;
- ◆ reviewing project proposals and selecting consultant;
- ◆ receiving status reports from TAC management staff;
- ◆ receiving draft documents developed by the consultant;

- ◆ providing comments on and direction for the work in progress; and
- ◆ ensuring the work is done in accordance with the accepted timelines and budget

The PSC also has the authority to accept or reject final project deliverables on behalf of the sponsors. In addition, TAC's councils and committees must approve a product before it is published in TAC's name.

Improvements to the Model

Although some of TAC's committee members have expressed concerns that it takes too long to secure sufficient project funding, others voice strong support for the process suggesting that, in comparison to the system that preceded the sponsored approach,

projects advance more quickly from conception to launch.

It has also been said that the sponsored project system provides a clearer focus on members' and sponsors' priorities and that whether or not project funding is secured can be considered as an effective measure of the value of a proposed initiative.

Efforts are being made to streamline and enhance the process. To assist potential sponsors with review and priority-setting, a consolidated document describing all of TAC's projects in need of funding was circulated following this year's spring and fall meetings. This replaced the practice of multiple invitations to consider one or two projects at a time.

The list of potential sponsors has also been broadened to include more municipalities, associations and private sector organizations, in addition to the provincial, territorial and federal government members of TAC.

Next steps will include a review of costs associated with sponsored projects to ensure that all aspects of the work are being carried out as effectively and efficiently as possible.

To find out more about TAC's sponsored projects, refer to the sponsored projects section of TAC's website. Aside from procedural material, the section contains information on projects under development and on the status of projects in progress. 

TAC Volunteers and Their Employers Given Greater Recognition

A value statement recognizing the contributions made by TAC volunteers and their employers has been adopted by the association's Board of Directors.

TAC's values will now include a fifth statement:

EXCELLENCE – *We are committed to excellence.*

- ◆ By continuously innovating and searching for improvement, we are committed to excellence in knowledge creation and practice development.

RESPECT – *We respect people and ideas.*

- ◆ We continuously strive for a collaborative environment that values and respects the work of everyone involved.

INTEGRITY – *We behave with integrity.*

- ◆ We behave ethically and strive to be transparent, honest and fair in all of our activities.

ACCOUNTABILITY – *We are accountable.*

- ◆ We are accountable to the needs of our members as set out in our mission.

APPRECIATION – *We value the significant contributions made by volunteers.*

- ◆ We continuously seek ways to express our appreciation for the hard work and dedication of our volunteers and for the support that they receive from their employers. 

PEOPLE IN THE NEWS

John Forster has been appointed associate deputy minister of Infrastructure Canada.

Andrew Treusch is now associate deputy minister of Public Works and Government Services Canada.

Paul May is the new chief engineer of the York Region Rapid Transit Corporation.

Mark Brightman has replaced **Brian Conlin** as the new president of Golder Associates Ltd.'s Canadian operations.

Cathy Roberston is now the director of the Roads and Parks Maintenance Department of the City of Burlington.

John Gamble is the new president of the Association of Consulting Engineering Companies - Canada, previously known as the Association of Consulting Engineers of Canada.

Kornell Musci is now working for the City of Ottawa as a senior project engineer.

Larry Koehle, director of public works and engineering for the Town of Caledon, Ontario, has been elected president of the American Public Works Association.

John Niedra, director of transportation services, Etobicoke York District, City of Toronto, passed away suddenly in late October. A long-time supporter of TAC, he was a member of the Chief Engineers' Council and Climate Change Task Force. 

Climate Change Task Force Mandate Renewed

Following an expression of support from all of TAC's councils, the mandate of the Climate Change Task Force has been renewed by the Board of Directors.

Originally mandated until April 2010, the task force will now continue its work at least until April 2012, when a review of its structure and workplan will be conducted.

The task force provides a forum for focused discussion on the topic of climate change. Its five key priorities are:

- ◆ raising awareness of the importance of climate change and related issues among TAC's councils, committees and membership;
- ◆ providing leadership on the topic of climate change for councils and committees;
- ◆ advancing understanding of the value of high-quality climate data and climate change design information;
- ◆ highlighting the economic implications of climate change; and
- ◆ addressing climate change mitigation and adaptation in TAC products, especially technical guidelines and publications on best practices.

Membership on the task force includes representatives from each of TAC's four councils, as well as additional representation to ensure geographic and sectoral balance. To encourage information exchange, each of TAC's standing committees has also been invited to appoint a "friend" to the task force. Friends will receive regular updates about the task force's work and be asked to attend meetings from time to time.

The task force hopes that councils and committees will incorporate climate change in all their discussions and projects. The intent is that climate change should not be treated as a separate topic. It should instead, for the most part, underlie discussion of every issue, and every project in future should consider climate change effects, mitigation, adaptation and costs, as appropriate. In short, the task

force believes that climate change should become part of the TAC culture.

As part of its work, the task force has expanded TAC's database of current practices and innovations, which can be found on the association's website under the resource centre heading. The database now includes references to a wide variety of climate change topics. Association members are invited to access the wealth of information contained in the database and to recommend additional resources by contacting TAC's librarian at tis@tac-atc.ca.

Another task force initiative is encouraging association members to submit feature articles on climate change topics for publication in *TAC News*. A contribution from the City of Fredericton is being carried in this issue.

More information about the task force, including a fall 2009 update on its activities, is available on TAC's website, under the councils and committees heading. 

NEW MEMBERS

TAC is pleased to welcome the following new members:

Capital Regional District

Victoria, BC
Malcolm MacPhail, Senior Transportation Planner

INIT Inc.

Île-des-Soeurs, QC
Nathalie Zaidi, President & CEO

Mahya Intelligent Transportation Systems

Tehran, Iran
Masoud Zadeh, Chairman of the Board

Remsoft

Fredericton, NB
Greg Singleton, Director, Business Development

Joe Angelo

Belleville, ON

Jonathan Palmer

Langley, BC

TAC's Transportation Information Service in Action

Online Services Return

The TAC library catalogue and other databases have returned to the TAC website after a few months off. Following a successful upgrade to the library software, the search functions are available again with a slightly different look and new features.

The search forms are available through the Resource Centre links of the TAC website. They are similar to the original forms but now support web search engine language. This means it is no longer necessary to put an ampersand - & - between each word in a search box.

The list of results from a search is less cluttered and the results are explicitly arranged by year, with the most recent first.

In the individual document records, there is now an option allowing the user to search for similar items by clicking on a subject or keyword tag. This one-click search finds all the records with the same keyword.

Finally, the databases are now "live." New records are available to view immediately after they are entered – there is no more waiting for an upload from the library computer to the web server.

If you have comments or questions about the new search features, contact TAC's Transportation Information Service at tis@tac-atc.ca. 

COMING EVENTS ~ 2010**89th Annual Meeting of the Transportation Research Board**

January 10-14
Washington, DC
Tel. (202) 334-2934
www.trb.org/meeting

Annual Meeting of the National Asphalt Pavement Association

January 17-20
Maui, Hawaii
Tel. (888) 468-6499
www.hotmix.org

XIIIth International Winter Road Congress

February 8-11
Quebec City, Quebec
Tel. (418) 658-6755
www.piarcquebec2010.org

Sustainable Communities Conference

February 10-12
Ottawa, Ontario
Tel. (613) 907-6349
http://gmf.fcm.ca/Sustainable_Communities_Conferences

8th Annual Urban Transportation Summit

March 2-3
Toronto, Ontario
Tel. (866) 298-9343
www.strategyinstitute.com

Technical Conference of the Institute of Transportation Engineers

March 14-17
Savannah, Georgia
www.ite.org/Conference/default.asp

Annual Conference of the Canadian Construction Association

March 16-22
Fort Lauderdale, Florida
Tel. (613) 236-9455
www.cca-acc.com

Annual Conference of the Association québécoise du transport et des routes

March 29-31
Quebec City, Quebec
Tel. (514) 523-6444
www.aqtr.qc.ca

TAC Spring Technical Meetings

April 8-12
Ottawa, Ontario
Tel. (613) 736-1350
www.tac-atc.ca

2010 Design-Build for Transportation Conference

April 21-23
Dallas, Texas
Tel. (202) 686-6614
www.designbuildtransportation.com

Annual Conference of the Canadian Urban Transit Association

May 15-19
Ottawa, Ontario
Tel. (416) 365-9800
www.cutaaactu.ca

16th World Road Meeting of the International Road Federation

May 25-28
Lisbon, Portugal
www.irf2010.com

4th Intertraffic China Trade Fair

May 26-28
Beijing, China
www.intertraffic.com

Annual Conference of the Federation of Canadian Municipalities

May 28-31
Toronto, Ontario
Tel. (613) 907-6212
www.fcm.ca/

Annual Conference of the Canadian Transportation Research Forum

May 30-June 2
Toronto, Ontario
Tel. (519) 421-9701
www.ctrf.ca

Annual Conference of the Canadian Society for Civil Engineering

June 9-12
Winnipeg, Manitoba
Tel. (514) 933-2634
www.csce.ca/2010/annual/

Annual Conference of the Intelligent Transportation Systems Society of Canada (ITS Canada)

June 13-16
Ottawa, Ontario
Tel. (905) 471-2970
www.itscanada.ca

3rd European Transport Research Arena

June 7-10
Brussels, Belgium
www.traconference.eu

Transports Publics 2010

June 8-10
Paris, France
www.transportspublics-expo.com

Annual Meeting of the Institute of Transportation Engineers and Annual Conference of the Canadian Institute of Transportation Engineers

August 8-11
Vancouver, British Columbia
www.ite.org/meetcon/index.asp

International Conference on Sustainable Concrete Pavements

September 15-17
Sacramento, California
www.fhwa.dot.gov/pavement/concrete/2010acptpconf.cfm

TAC Annual Conference & Exhibition

September 26-29
Halifax, Nova Scotia
Tel. (613) 736-1350
www.tac-atc.ca

Call for papers deadline: January 26

8th Malaysian Road Conference

October 10-13
Kuala Lumpur, Malaysia
www.mrc.org.my

Pavement Asset Design and Management Guide under Preparation

Work is underway to update TAC's *Pavement Design and Management Guide*.

The new guide will provide a current, comprehensive consolidation of Canadian pavement asset design and management expertise, as well as promote good design and management practices.

Since publication of the existing pavement guide in 1997, new and innovative technologies have emerged and the knowledge base has evolved. In order to meet the needs of engineers and technologists in the public and private sectors and academics, the guide will be updated with the latest and most practical approaches to pavement asset design and management for both urban and rural environments.

Key update areas will include infrastructure, asset management, asset valuation, pavement structural design methodologies including mechanistic-empirical methods, and materials such as warm asphalt, pervious concrete and "green" pavements.

The new guide will be a practical, easy-to-read work for regular use by practitioners who are designing, building, rehabilitating and managing pavements.

The project steering committee has developed the terms of reference for preparation of the *Pavement Asset Design and Management Guide* and also selected a consulting consortium to carry out the work.

The consortium is composed of eight organizations: **Applied Research Associates Inc.**, **EBA Engineering Consultants Ltd.**, **Golder Associates Ltd.**, **Stantec Consulting Ltd.**, as well as the **University of Calgary**, **Laval University**, the **University of Saskatchewan** and the **University of Waterloo**. It is headed by Susan Tighe of the University of Waterloo.

The project steering committee is currently reviewing a survey of select public agencies, private firms and academic institutions with a direct interest in roads, pavements and asset management.

The project is expected to be completed by the fall of 2011. 



Urban Road Collision Study Completed

A study report on the safe accommodation of vulnerable road users and commercial motor vehicles in urban areas will be published by TAC in the near future.

Despite their low frequency, collisions between vulnerable road users and commercial motor vehicles in Canadian cities are a concern due to their potentially severe nature. However, there is a lack of understanding of the nature and characteristics of these collisions and only a small number of studies have investigated the issues specifically related to collisions between vulnerable road users and commercial motor vehicles.

The TAC study was undertaken with the goal of determining the characteristics of the collisions in question and identifying possible countermeasures for further research.

The study began with a literature review to gain an understanding of the nature of collisions between vulnerable road users and commercial motor vehicles in terms of occurrence, severity, contributing factors and recommended countermeasures. This was

followed by an association member survey intended to garner information from various perspectives for which these issues were of particular concern or relevance.

In order to represent a cross-section of cities, data from Ottawa, Toronto and Vancouver was obtained to conduct a collision analysis. The analysis was undertaken in two parts: a high-level analysis that investigated and established general trends and a detailed analysis of the most important trends to examine possible contributing factors for selected crash types.

Proposed by TAC's Road Safety Standing Committee, the project was conducted by the **Boulevard Transportation Group** under the direction of a steering committee. The results have since been approved by the Chief Engineers' Council.

The report on the safe accommodation of vulnerable road users and commercial motor vehicles in urban areas is expected to be published in the spring. A notice will be posted on the association's website as soon as the publication becomes available. 