Message from the President & Executive Director’s Report

Advancing TAC’s Focus Areas

2020/21 Performance

Perspectives from MUTCDC Project Leaders
Who We Are

The Transportation Association of Canada (TAC) is a not-for-profit, national technical association that focusses on road and highway infrastructure and urban transportation.

Our 500 corporate members include all levels of governments, private companies, academic institutions, and other associations. TAC provides a neutral, non-partisan forum for those organizations, and their thousands of staff, to come together to share ideas and information, build knowledge, and pool resources in addressing transportation issues and challenges.

TAC develops publications identifying best practices and encouraging harmonization of those practices across jurisdictions. While TAC does not set standards, it is a principle source of guidelines for planning, design, construction, management, operation, and maintenance of road, highway, and urban transportation infrastructure systems and services.
Having recently taken the helm as TAC’s President, I’m honored to have the opportunity to lead such a well-respected technical organization and I’m grateful to the Board, members and staff for the welcome and support I’ve received in my new role.

The Board of Directors is responsible for TAC’s strategic oversight and must consider risks and opportunities that may be encountered. This has been especially important given the challenging times we’ve faced recently. Directors are strongly committed to the Association, and strive to build on its strengths toward ensuring its sustainability in the future. To that end, I’d like to highlight some key decisions that were taken by the Board in the last year.

TAC’s spring technical meetings will be held online for the foreseeable future, while the fall meetings will be held in conjunction with the annual Conference & Exhibition when it resumes an in-person format. The experience of the pandemic has shown that online meetings can be productive and that more people can participate in TAC’s meetings when travel isn’t required. This way, more professionals benefit from the opportunities to share information, learn, and connect with others. Including online meetings in TAC’s calendar, along with regular in-person meetings, will offer the best of both worlds and allow our network of engaged participants to grow in the years to come.

The Board has invested some of TAC’s financial reserves in a project to develop a new road safety guide for Canada. The Guide is envisioned as the third of TAC’s foundational documents, complementing the safety-related guidance in the Geometric Design Guide for Canadian Roads and the Manual of Uniform Traffic Control Devices for Canada. We applaud the work done to scope the project and believe the Guide will be an essential resource for the Canadian transportation sector. With the Board’s start-up contribution, additional funding partners are encouraged to work with us on this important endeavor.

TAC maintains an Emergency Reserve Fund intended to protect the Association in times of crisis. The Fund offered security as we worked through the global pandemic and felt its impacts on TAC’s operations. With careful management and the support of members, we have been able to preserve the Fund and the Board has set aside some additional funds to further improve its balance. The Association provides a unique forum and critical resources for transportation professionals; it is a Board priority to ensure it endures should other unexpected situations arise to challenge us in the future.

With 2020/21 behind us, we’re all looking forward to steadier times and more normal routines ahead. TAC members can be confident that the Board of Directors has their interests and the Association’s strategic directions in mind as we build towards a vision of transportation that makes Canada safe, healthy and prosperous.

Laurie LeBlanc
TAC President
2020/21 presented lots of challenges for us all but as we look back at the year, it’s impressive to see the progress that nonetheless continued on important initiatives, both within member organizations and working together through TAC. In the case of the Association, it is thanks to dedicated members and volunteers, a strong Board of Directors, and committed staff that there is so much good news to report coming out of a difficult year.

One example was the transformation of TAC’s traditional technical meetings to online events. Attendance during both the spring and fall series exceeded 600 unique individuals (almost double our typical in-person attendance) with an average of 35 people participating in each meeting. That’s a testament to the good work our councils and committees do, and to the value of the forum that TAC provides for connecting and collaborating with transportation professionals.

We saw growth in our rosters last year when a membership drive for some of TAC’s councils and committees attracted more than 30 new volunteers. Our collective work is improved with more people and more perspectives at our tables. That increase in our base of active volunteers further demonstrates the continued relevance of TAC’s network in changing times.

TAC’s first-ever online conference, convened over three weeks in the fall of 2020, was a success. Over 1100 people participated, 50 corporate partners supported the event, and information was shared through 85 sessions covering topics across 16 tracks. Some important lessons were learned about the challenges associated with facilitating online networking opportunities, an aspect we’ll aim to improve for future events.

Work progressed on projects that will soon deliver benefits for transportation in Canada. Among these, the finishing touches were put on the sixth edition of the Manual of Uniform Traffic Control Devices for Canada, a detailed curriculum was approved for a comprehensive online road safety training program, and a gap analysis was begun about developing highly qualified personnel, along with other project developments. As always, TAC projects could not be undertaken without the tremendous support of members and volunteers; in 2020/21, a remarkable 39 different organizations provided funding to projects. Those contributions are essential to our joint efforts to build knowledge and develop resources for practitioners.

There was new energy in communications with and among members. Ways to hear from your Association and to connect with each other included an expanded webinar program, new virtual roundtables and lunch ‘n’ learns, a revamped report format to share the valuable results of volunteer projects, and an increased presence online in social media and with new sponsorship and advertising opportunities for stakeholders.

These examples and the stories in this annual report offer lots of evidence that TAC’s work continued unabated in 2020/21, despite the unusual circumstances of the global pandemic. As the meeting place for Canada’s transportation community, it’s been encouraging to see members pull together, and it inspires confidence that we will build back better in the months and years ahead. Serving members will be TAC’s continuing commitment as we work together to share information, build knowledge, promote best practices, foster leadership and encourage bold transportation solutions.

Dr. Sarah Wells
Executive Director
2020/21 Performance

FINANCIAL SUMMARY*

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<th>ACTUAL 2020/21</th>
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*As per audited financial statements. Includes revenue for reserves and intergovernmental programs as well as subsidies provided through federal COVID-19 emergency programs.

PROJECT ACTIVITY
44 funded & volunteer projects
4 in progress
9 in development
31 volunteers

CONFERENCE ACTIVITY
85 sessions delivered

MEMBER RETENTION RATE
94.2%

SIZE OF VOLUNTEER BASE
789 unique individuals on active councils, committees & PSCs

SIZE OF RESERVES
$2,489,699

MEMBERSHIP DISTRIBUTION
492 corporate members

DIVERSIFICATION OF REVENUE

- 31.3% Membership fees
- 25.5% Other
- 15.7% Client services
- 13.1% Conference
- 8.9% Pooled fund projects
- 5.3% Publications
- 0.2% Learning program

MEMBERSHIP DISTRIBUTION

- Municipalities: 230
- Private sector organizations: 187
- Associations: 25
- Educational institutions: 25
- F/P/T govt depts of transport: 14
- Govt non-transport dept or transportation agency: 11
TAC is governed by a Board of Directors elected from all levels of government, the private sector, and other organizations. The Board sets the strategic direction for our Association and oversees TAC’s volunteer structure.

### EXECUTIVE

<table>
<thead>
<tr>
<th>President</th>
<th>Past President</th>
<th>Vice-President, F/P/T</th>
<th>Vice-President, Municipal</th>
<th>Vice-President, Members-at-Large</th>
<th>Treasurer</th>
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<tr>
<td>Laurie LeBlanc</td>
<td>Darren Chiasson</td>
<td>Paul McConnell</td>
<td>Tim Savoie</td>
<td>Scott Stewart</td>
<td>Michael Thompson</td>
<td>Sarah Wells</td>
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<td>Deputy Minister</td>
<td>Deputy Minister</td>
<td>City Manager</td>
<td>Chief Executive Officer</td>
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<td>Yukon Highways and Public Works</td>
<td>City of Port Moody</td>
<td>IBI Group</td>
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<td>City of Calgary</td>
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### OUR VISION

Transportation that makes Canada safe, healthy and prosperous

### OTHER DIRECTORS

- **Brad Anguish**
  Executive Director
  Transportation and Public Works
  Halifax Regional Municipality

- **Jim Berezowsky**
  Director of Public Works
  City of Winnipeg

- **Gerry Chaput**
  Director, Partnerships
  IBI Group

- **Valérie Gagnon**
  Director, Mobility
  City of Montreal

- **Cory Grandy**
  Deputy Minister
  Newfoundland and Labrador Transportation and Infrastructure

- **John Hawkins**
  Assistant Deputy Minister
  Nunavut Economic Development and Transportation

- **Lon LaClaire**
  General Manager
  Engineering Services
  City of Vancouver

- **Paul LaFleche**
  Deputy Minister
  Nova Scotia Transportation and Active Transit

- **Rae-Ann Lajeunesse**
  Deputy Minister
  Alberta Transportation

- **Anne-Marie Leclerc**
  Assistant Deputy Minister
  Ministère des Transports du Québec

- **John Logan**
  Acting Deputy Minister
  New Brunswick Transportation and Infrastructure

- **Steve Louitt**
  Deputy Minister
  Northwest Territories Department of Infrastructure

- **Anuradha Marisetti**
  Assistant Deputy Minister
  Transport Canada

- **Ed Miska**
  Acting Assistant Deputy Minister
  BC Ministry of Transportation and Infrastructure

- **Patrick Puccini**
  Vice-President
  AECOM Canada Limited

- **Garreth Rempel**
  Founding Partner
  MORR Transportation Consulting

- **Sarah Thiele**
  Deputy Minister
  Manitoba Infrastructure

As of April 26, 2021
Volunteer Structure

ENVIRONMENT & CLIMATE CHANGE COUNCIL

SAFETY, DESIGN & OPERATIONS COUNCIL

INFRASTRUCTURE & ASSET MANAGEMENT COUNCIL

TECHNOLOGY COUNCIL

MOBILITY COUNCIL

WORKFORCE DEVELOPMENT COUNCIL

PIARC CANADIAN NATIONAL COMMITTEE

CONNECTED & AUTOMATED VEHICLES TASK FORCE

CHIEF ENGINEERS PANEL

OUR MISSION

Working together to share ideas, build knowledge, promote best practices, foster leadership, and encourage bold transportation solutions
Briefing on Environmental Legislation

In August 2019, legislative changes came into force that reshaped the Government of Canada’s environmental regulatory processes for a wide range of developments and activities, including transportation projects. These resulted from a three-year review aimed at increasing the robustness and transparency of environmental assessment processes to restore lost protections and incorporate modern safeguards.

A briefing, Understanding Changes to the Fisheries Act, Impact Assessment Act and Canadian Navigable Waters Act, was published to provide an overview of the key changes to the Acts most relevant to the transportation sector.

Written by volunteer members of TAC’s Environmental Legislation Committee and approved by the Environment & Climate Change Council, it is available as a free PDF in both English and French.

Changes to environmental legislation and regulations can be difficult to keep up with. By summarizing and highlighting key aspects of new laws, this briefing will support TAC members as they work to understand and adhere to federal environmental processes and requirements.

Oliver Laser, Past Chair of TAC’s Environment & Climate Change Council and Manager of Environment & Regulatory, Prairies, Wood
Risk Analysis and Responding to Climate Change

A new software tool to help agencies assess the risks posed by climate change has been made available to public sector organizations represented on the Environment & Climate Change Council.

The Canadian Climate Change Risk Assessment Software walks the user through the development and analysis of multiple scenarios, captures and stores information/documents, and offers useful tips and guidance. Based on the results, strategies to manage the frequency and severity of climate risks to transportation infrastructure and operations, services or operating practices can be developed.

The software is expected to be more broadly offered to TAC members in 2021/22.

Elevating Ecological Principles in Road Design and Operations

The final report of a pooled-fund project to synthesize emerging and evolving practices in terrestrial roadway ecology has been approved. Managing and Enhancing Terrestrial Road Ecology will present practitioners with case studies of new builds, retrofits and changes in operational practices that are designed to be more responsive to ecological systems and the associated plants, animals and habitats.

The location, design and operation of roads can greatly influence the character, function and livability of adjacent communities and land uses. The concept of “road ecology” is relatively new and focused on the potential effects of roadways on natural landscapes and processes as an element of sustainable transportation systems.

The publication is now available in English as a free PDF.
Improving Asset Management Decisions

In 2018, TAC volunteers identified the need for new guidance on how organizations can make complex investing decisions about maintaining transportation assets in a world with limited funds and limitless trade-offs. They launched a pooled-fund project called Performance-Based Decision Making for Asset Management: Lessons Learned and Practitioner Toolkit, which saw its final report approved this year. The report is being prepared for publication in 2021/22 as a free download in both English and French from TAC’s website, through the financial support of 13 partner organizations.

The final document will summarize current practices, case studies and lessons learned on performance-based evaluation, optimization and decision-making processes. It will include a toolkit with “how to” information on specific approaches to prioritizing capital and operating investments in a transparent, accountable and outcome-driven manner.

Finally, it will also address the key challenge of how to optimize decisions across an organization that is responsible for multiple asset classes and multiple modes of transportation.

“I’ve always considered it a privilege to participate on TAC committees because one can quickly build professional networks and being able to exchange ideas with these individuals is invaluable.”

Brian Hollingworth, TAC volunteer
Director of Transportation Planning and Parking, City of Hamilton
Evaluating Soil and Material Stabilization Products

The final report of the pooled-fund project Evaluating Soil and Material Stabilization Products, which was supported by nine partner organizations, has been approved and is being readied for release. The publication will be available for sale in 2021/22 in both English and French.

There are numerous physical, chemical and biological products available for soil and material stabilization in road construction. As new products appear on the market, agencies often struggle to obtain information about them including installation procedures and long-term performance. Because product evaluation in the field is expensive and time-consuming, agencies can experience difficulties in assessing products and their use in local conditions.

The upcoming Guide to Evaluating Soil and Material Stabilization Products will include an inventory of product types that are used to stabilize poor soils during road construction, as well as recommend a detailed process for the evaluation of new products. Harmonization of product evaluation processes by agencies, and sharing of results, could reduce costs, accelerate the acceptance or rejection of proposed products, and improve the long-term performance of roadways.

Coordinating Utilities on Public-Private Partnership Projects

The final deliverable of a TAC volunteer project, the Guide to Utility Coordination on Public-Private Partnership (P3) Projects, was approved by TAC’s Infrastructure & Asset Management Council and will be published in 2021/22.

The document was developed by volunteers from the Public Utilities Management Subcommittee of TAC’s Maintenance & Operations Committee, with input from municipalities, utilities and consultants across Canada.

It will help stakeholders in complex P3 projects manage the risk associated with utility installation and relocation, and provide detailed workflows and checklists to support the consistent application of best practices through a project’s life cycle.
Building Understanding of Goods Movement

Freight transport has major impacts on Canada's roads and economy, but the training and education of transportation planners, engineers and related professionals typically includes very little information on the subject. Several years ago, work started on the need to raise awareness of how goods are transported in urban areas, and how to best plan for goods movement in the face of emerging trends.

Understanding Goods Movement in Canada was published in early 2021 and offers a comprehensive introduction to the subject for individuals working in transportation and related sectors. It provides an overview of the freight industry including its structure and key stakeholders; explains important considerations in planning for goods movement; and describes major trends and disruptors with their benefits and risks.

The report (in both English and French) can be downloaded free from TAC's website, thanks to support from the project's nine funding partners; an accompanying series of recorded lectures is under development.
Disseminating the Work of TAC Volunteers

The Mobility Council approved three reports that used a new format for volunteer project deliverables, and which are now available as downloads from the TAC Library catalogue. They summarize work on approaches to estimating bicycle travel demands, regulations affecting bicycle facilities, and public engagement on sustainable transportation projects.

Taking a Look at Mobility Pricing

A new pooled-fund project, Mobility Pricing Opportunities and Challenges, has launched with financial support from seven TAC member organizations. The study will identify and explain the major opportunities and challenges for road user charges such as tolls, cordon charges, area charges or distance-based fees in the Canadian context. It will consider the connections between road user charges and other mobility pricing tools including fuel taxes, parking fees, curbside access fees, transit fares, and ride hailing or bike sharing levies.

The resulting document is scheduled for release in 2022/23, and will help municipal, regional, provincial, territorial and federal transportation authorities better understand how road user charges could be applied, and what impacts they could have on urban transportation system performance, greenhouse gas emissions, public health, social equity and access to opportunity, economic productivity and competitiveness, and government revenues. It will address important contextual differences including order of government and community size, and will also address the implications of emerging technologies and business models, as well as trends in travel behaviour and consumer preferences.

2020 Awards

TAC Sustainable Urban Transportation Award

City of Nanaimo | Nanaimo Goes Dutch
Technology

Connected & Automated Vehicles Task Force

This Task Force is a forum for dialogue and collaboration among transportation system owner-operators, regulatory bodies, private businesses, industry organizations, and academia.

It helps TAC members respond to and benefit from the development and application of connected vehicle and automated vehicle (CAV) technologies, with an emphasis on optimizing outcomes for public health and safety, mobility, economic prosperity and environmental sustainability in urban and rural communities.

Inventory of CAV Initiatives

An inventory of almost 100 Canadian CAV-related initiatives involving governments, businesses, academic institutions and non-profit organizations was made available in 2020/21.

The inventory was initially developed by the federal-provincial-territorial Coordinating Council on Automated and Connected Vehicles to help monitor progress related to the Automated and Connected Vehicles Policy Framework for Canada, and has been refined and expanded by TAC with assistance from volunteers.

It is available on TAC’s CAV resources webpage in a downloadable Microsoft Excel document (separate English and French versions), so that entries can be searched, sorted and filtered.
The world of CAVs is fast-moving, and it's easy to get confused by marketing messages. For municipalities who are concerned about CAV needs and impacts, this primer can be the foundation of a realistic understanding of CAVs—both what we know, and what we don’t.

Kenedee Ludwar, Chair of TAC’s CAV Task Force and Director of Transportation Systems and Road Safety Engineering, British Columbia Ministry of Transportation and Infrastructure
Workforce Development

Workforce Development Council

This Council guides TAC in fulfilling its commitment to supporting the development of a skilled, interdisciplinary workforce for Canada’s transportation sector. It provides a national forum for information exchange and problem-solving related to: recruiting and retaining professional and technical staff; building leadership and managing knowledge within TAC member organizations; encouraging post-secondary institutions to develop and enhance transportation-related programs; and encouraging students to learn about and find employment in the transportation sector.

Gathering and Engaging the Academic Community

In summer 2020 a report, Inventory of Post-Secondary Transportation Programs in Canada, was completed. It was based on a survey of researchers and instructors at Canadian universities and colleges, and summarizes the teaching and research activities of respondents, the courses they provide, and their participation in TAC and other organizations.

The report will support efforts by TAC’s councils and committees to engage with institutions and individual academics, and to help TAC strengthen its relationship with post-secondary researchers, teachers and students.

For information or to receive a copy of the English report, contact TAC.
Meeting the Critical Need for Highly Qualified Personnel

Canadian road authorities increasingly rely on highly qualified personnel (HQP) whose skillsets range from traditional civil and transportation engineering to computer and software engineering, and who offer expertise in data analytics, radio communications, and cybersecurity.

In recognition of the need for road authorities to take an active role in fostering an HQP talent pipeline, TAC launched a pooled-fund project in 2020/21 to understand the skills gap faced by road authorities, and to propose measures to address that gap. The study will identify the types of training and academic programs that are needed, and that could be implemented by Canadian stakeholders over the next few years.

The final publication will be available in both English and French in 2021/22.
Safety

Safety, Design & Operations Council

This Council guides TAC in fulfilling its commitment to a safe and efficient transportation system with enhanced mobility and a reduced rate of death and injury among all road users. It provides a national forum for information exchange and problem-solving related to road safety programs, geometric design and traffic operations as key elements of a safe systems approach; it also offers a lens on priority issues for small municipalities.

Updating Canada’s National Traffic Control Guidance

Final steps were taken in 2020/21 to prepare the *Manual of Uniform Traffic Control Devices for Canada, Sixth Edition* (MUTCDC) for publication, including approval of the final report by TAC’s Chief Engineers.

This toolbox of signs, traffic signals, pavement markings and other devices promotes the design and operation of traffic control devices as an integrated system, and helps road operators to inform travellers about regulations, hazards and temporary conditions. It encourages predictable, rapid and error-free decisions by individual road users in conformance with applicable laws, and supports the harmonization of traffic control across Canada while providing flexibility for individual jurisdictions and practitioners to make the best possible local decisions.

Developing the MUTCDC, Sixth Edition was a six-year collaborative process led by TAC with integral roles played by federal, provincial and territorial departments of transport, 12 municipalities and two non-profit organizations. The multidisciplinary consulting team included Canadian experts in human factors, road safety, active transportation and traffic operations.

Current information about the Sixth Edition MUTCDC is available in the Publications and Resources section of TAC’s website. The English version of the Manual was released for sale in June 2021 (after the period covered by this Year in Review); the French version of the Sixth Edition, « Manuel canadien de la signalisation routière, 6e édition » will be available near the end of 2021.
New GDG Chapter on Special Roads

In 2020, TAC’s Geometric Design Guide for Canadian Roads (GDG) added a brand new chapter on special roads, offering guidance for designers of low-volume rural roads, resource roads, recreational roads, and winter roads. The GDG is a fundamental reference document for roadway design practitioners in Canada that contributes to the consistent and safe development and expansion of regional, provincial, and national roadway and highway systems in Canada. The new Chapter 11 is sold separately, as well as included in a package of all GDG chapters, and is available in either hard copy or e-book format. An instructional webinar on Chapter 11 – Special Roads was also delivered in 2020.

Developing New Road Safety Training

The 2020/21 year saw significant progress in a project to develop an online course that will deliver road safety training to Canadian practitioners, in partnership with the Canadian Institute of Transportation Engineers and 10 other organizations. The course curriculum was approved by TAC’s Safety, Design & Operations Council, and five modules offering about 50 hours of pre-recorded lectures, case studies and quizzes are well underway. The course is expected to be available in 2021/22.

Working for Safer Cycling

As the continued growth of cycling in Canada leads to the creation of new infrastructure, a new TAC publication evaluating the actual safety performance of different bicycle facilities and identifying key considerations for new designs has been released. Safety Performance of Bicycle Infrastructure in Canada uses the results of a literature review, surveys and case studies to help practitioners in their choice of appropriate cycling facilities for different roadway contexts. The publication and its technical appendices can be downloaded free from TAC’s website, thanks to support from the project’s 16 funding partners. It is currently available in English, with the French version coming in 2021/22.

Testing User Comprehension of New Traffic Control Devices

TAC’s Traffic Operations & Management Committee (TOMC) regularly evaluates new road signs and other traffic control devices for possible addition to the Manual of Uniform Traffic Control Devices for Canada (MUTCDC). As part of this process, it is important to know if road users will easily and accurately understand the meaning of each device. To help, this year TAC prepared a new online comprehension testing software that surveys individuals’ interpretations of potential new signs and other devices. This software will help TOMC members evaluate new devices and make sound recommendations for future MUTCD updates.

2020 Awards

TAC Road Safety Engineering Award

British Columbia Ministry of Transportation and Infrastructure | Road Weather Information System and Variable Message Sign Integration
Hart Solomon is a Senior Transportation Engineer with CIMA+ who led the multidisciplinary consulting team for the MUTCDC project.

Rob Hird was Chair of the project steering committee, and is Senior Traffic Engineer and Deputy Provincial Traffic Authority with the Nova Scotia Department of Transportation and Active Transit. They provided a few insights into the six-year effort.

The result of the MUTCDC Sixth Edition project is a completely updated Manual that contains more comprehensive guidance with increased emphasis on transit, cycling and pedestrians. The content of the Sixth Edition reflects innovative treatments and well as current practices from across the country and further afield that are based on sound engineering principles.

The need for consistency across Canada grows with a wider cross-section of users, both motorized and non-motorized, and the potential for new technologies such as automated vehicles and infrastructure.

This Sixth Edition of the Manual was made possible through the generous effort and support of many individuals and organizations: individuals who have devoted many volunteer hours; governmental authorities and many associations and organizations who have generously provided their financial and in-kind support; and the Transportation Association of Canada which has supplied the administrative and technical support.

The accomplishment of this monumental task, part of which was during the global COVID-19 pandemic while many worked remotely, is something to be proud of.

Rob Hird

TAC: How were the needs of vulnerable road users considered and better integrated in the guidance of the Sixth Edition?

HS: First, the new Manual is structured so that traffic control devices for cyclists, pedestrians, trucks, railways, etc. are grouped together within sections like Pavement Markings, Warning Signs and Typical Applications. Grouping the devices this way helps the practitioner select the most appropriate option for their particular situation or location. Specific guidance provided in the Sixth Edition to help increase safety for vulnerable road users includes:

- A broader range of options for walking speeds at traffic signals to address the different abilities of pedestrians known to use a specific location;
- Additional signal phasing charts providing priority for cyclists and pedestrians;
- Sections on Accessible Pedestrian Signals and Pedestrian Countdown Signals, as well as a modified signal warrant to consider when pedestrian signal heads are appropriate; and
- Additional signing for construction situations involving pedestrians and cyclists.

TAC: What were the biggest challenges that the project and consultant teams encountered?

HS: Determining what material from the many available Canadian and North American sources should be included in the new Manual, while maintaining its universal Canadian perspective, was a significant but interesting challenge. Also, defining whether specific pieces of guidance in the Manual were required (must), recommended (should) or optional (may) was something that the project and consulting teams researched and discussed throughout the duration of the project.

TAC: What were the major aspects or areas of focus for the project?

HS: There were several things that we hoped to achieve with the Sixth Edition MUTCDC, like:

- Reflecting the evolution in traffic engineering science and human factors since the Fourth Edition Manual was published in 1998;
- Incorporating new research and changes in traffic control developed by TAC’s Traffic Operations & Management Committee since the Fifth Edition was published in 2014;
- Adding new sections, including “Typical Applications” to show graphic representations of combinations of traffic control devices and introductory sections on safety and road users; and
- Increasing the references to and information on road safety throughout the Manual, as well as having the Manual complement TAC’s other foundational document, the Geometric Design Guide for Canadian Roads.
Other Highlights

Technical Meetings
Due to the pandemic, TAC’s regular spring and fall technical meetings were adapted to be held online.

For the meetings in spring 2020, this meant a quick turnaround to change venue and travel plans; for fall 2020 it meant hosting the meetings after the annual conference. The schedules of meetings were each extended over four weeks.

Pandemic Response
To support members during the global pandemic in 2020/21, TAC’s management and Board made a number of immediate and longer-term adjustments. These included:

- Ensuring operations and communications continued with minimal disruption while TAC staff worked remotely;
- Reducing pricing on e-book versions of key publications and recorded webinars for several months while members adapted to working from home;
- Organizing several online meetings for representatives of almost 20 municipalities to share and discuss issues around the impacts of and responses to the COVID-19 pandemic; and
- Developing and maintaining a list of COVID-19 resources on TAC’s website.

Delivering Online Learning
In addition to pivoting to host technical meetings and the annual conference online in 2020/21, TAC continued to increase its emphasis on online learning opportunities. Many webinars were available free of charge, with 1470 participants attending eight “discovery” webinars that share best practices or case studies across Canada.

Anticipating the need to deliver the new online course in road safety, the procurement of a learning management system (LMS) platform also began. The new LMS platform will replace TAC’s online Learning Centre, which was shut down in early 2021.
Other Highlights

2020 Volunteer Contribution Awards

Distinguished Service Award
- Gérard Desgagnés, formerly with Ministère des Transports du Québec (retired)
- Darrell Evans, PEI Transportation and Infrastructure
- Alf Guebert, AAGuebert & Associates Inc.
- Ed Miska, British Columbia Ministry of Transportation and Infrastructure

Leadership Award
- Marta Juhasz, Alberta Transportation
- Nancy Badeau, Ville de Montréal
- Sabbir Saiyed, Region of Peel

Individual Contribution Award
- Henning Buch, Jacobs
- Maya Caron, formerly with Ontario Ministry of Transportation (now with Deloitte Canada)
- Darlene Cleven, Allan Widger Consulting Corporation
- Mark Hearson, Stantec Consulting Ltd.
- Martin Hotte, City of Montreal
- Greg Iwaskow, City of Calgary
- Ana Lopez, British Columbia Institute of Technology
- Timothy Spurr, formerly of Autorité régionale de transport métropolitain (now with Giro Inc.)

Committee Excellence Award
- Integrating Health and Transportation in Canada Project Steering Committee

2020 Young Professional Awards

Young Transportation Professional Award
- Elli Papaioannou, HDR

Allan Widger Consulting Corporation Grant for Young Geotechnical Engineers in Transportation
- Ahmed Ghazy, City of Winnipeg

2020 Student Paper Awards

These awards recognize the excellence of papers delivered at TAC’s annual conference by full-time post-secondary students, evaluated by members of TAC’s Workforce Development Council.

1st prize: Andrew Northmore, University of New Brunswick
- Development of Collision Adjustment Factors for the Canadian Traffic Signal Warrant Matrix Procedure

2nd prize: Daniel Mroz, Western University
- Evaluation of Modified H-Piles Subject to Lateral Loading for Sound Wall Applications

3rd prize: Mai Alawneh, University of Saskatchewan
- Investigating the Freeze-Thaw Damage in Asphalt Concrete Using Imaging Techniques

Other Highlights
Innovation through Collaboration

Collaborating and networking is an essential tool for exchanging best practice knowledge and learning about the latest innovations and industry developments.

A wide network of informed, interconnected contacts means broader access to new and valuable information for TAC and our members.

TAC gratefully acknowledges our funding partners’ contributions to technical projects. These commitments are essential to the Association’s efforts to build knowledge and develop resources for practitioners. Details are available on the ‘Projects’ section of TAC’s website.

TAC serves as secretariat for the Canadian National Committee (CNC) of the World Road Association, known as PIARC.

In 2020/21, TAC worked with Transport Canada and the City of Calgary to plan for PIARC’s 16th World Winter Service and Road Resilience Congress, which will be held online in February 2022. A foresight session, Adapting Infrastructure for Resilience: Research and Experience, will be organized by TAC as part of the program.

TAC maintained valuable connections with the following transportation organizations in 2020/21:

Other Highlights

2020 Conference & Exhibition

The 2020 TAC Conference & Exhibition was held online over three weeks, September 20 to October 8. Pivoting to deliver Canada’s largest transportation conference in a new format, as a result of the global pandemic, was a major undertaking that involved the collaboration and support of hundreds of players.

1,129 attendees | 50 corporate partners | 325 presenters | 85 sessions | 16 tracks

Technical Project Funding Commitments (2020/21)

The following funding partners contributed to projects in progress or in development from April 1, 2020 to March 31, 2021. Their commitments, along with volunteer support on project steering committees, helped make TAC’s collaborative work possible:

- Alberta Transportation
- Autorité régionale de transport métropolitain
- British Columbia Ministry of Transportation and Infrastructure
- Canadian Association of Road Safety Professionals
- Canadian Institute of Transportation Engineers
- Cement Association of Canada
- City of Burlington
- City of Calgary
- City of Edmonton
- City of Hamilton
- City of Kelowna
- City of London
- City of Moncton
- City of Ottawa
- City of Saskatoon
- City of St. Albert
- City of Toronto
- City of Vancouver
- City of Winnipeg
- Halifax Regional Municipality
- Insurance Corporation of British Columbia
- International Municipal Signal Association
- Manitoba Infrastructure
- McAsphalt Industries
- Metrolinx
- Ministère des Transports du Québec
- Ministry of Transportation, Ontario
- New Brunswick Department of Transportation and Infrastructure
- Newfoundland and Labrador Transportation and Works
- Northwest Territories Department of Infrastructure
- Nova Scotia Transportation and Active Transit
- Ontario Good Roads Association
- Prince Edward Island Transportation and Infrastructure
- Region of Durham
- Saskatchewan Ministry of Highways
- TransLink
- Transport Canada
- Ville de Montréal
- Yukon Highways and Public Works
TAC members are remarkable. Whether we’re talking about member organizations or individuals who volunteer their time and expertise to the Association’s work, their collective contributions make a real difference to improving transportation in Canada.

Dr. Sarah Wells
Executive Director