

ITE District 7 (Canada)

Manitoba Section

2019 Annual Report

March 1, 2020

Prepared for:

Canadian Institute of Transportation Engineers



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1 INTRODUCTION

This is the annual report for the ITE Manitoba Section, covering the period from January 1, 2019 to December 31, 2019.

2 SECTION EXECUTIVE

The Executive members of the Manitoba Section in 2019 were:

President: Jennifer Chapman, P. Eng.
 Vice President: Steven Florko, P.Eng.

• **Secretary:** Rebecca Peterniak, M.Sc., P.Eng., RSP₁

Treasurer: Steve Wood, M.Sc., EIT
 Past President: David Wiebe, P. Eng., PTOE

3 SECTION MEMBERSHIP

As of December 31, 2019, the Manitoba Section had 79 members which is an increase of nine members compared to 2018. The membership breakdown is as follows, with 2018 numbers given in brackets:

Regular members: 44 (39)
 Student members: 29 (24)
 Fellows: 6 (7)
 Total: 79 (70)

4 FINANCIAL REPORT

The Section's 2019 financial performance was better than the projected budget, due to a number of factors. This year, Past President David Wiebe's employer (Dillon Consulting Limited) covered a portion of his expenses for the CITE/ITE Annual Conference in Ottawa. Our luncheon venue - the Winnipeg Winter Club - offers low room costs resulting in higher profits as compared to previous venues. Additionally, this year's fundraiser was a success due in large part to a strong sponsor representation.

This year saw some new budget items not previously seen, most notably the value-add for membership, which was used to host the CITE/TAC Traffic Calming Workshop here in Winnipeg. In addition, the Section hosted a bike tour this year, which will aim to be a cost-neutral event in the future. The Section was also proud to sponsor Garreth Rempel for this year's Class of Leadership ITE program. Since the Section still has unallocated income and a healthy fund balance, we plan to offer another value-added initiative in the coming year to provide further opportunity to members.

Balance of Funds on hand at the Beginning of the Reporting Period: \$9.143.70

Balance of Funds on hand at the End of the Reporting Period: \$7,892.92

| CITE Manitoba Section – 2019 Budget | | | | | |
|---|----------------|-------------|----------------|---|--|
| | 2019 Budget | 2019 Actual | 2020 Budget | Notes for 2020 Budget | |
| Revenue | | | | | |
| Membership Fee | \$917.70 | \$713.31 | \$700.00 | Conservative estimate based on 2019 actual | |
| Fundraiser | \$765.00 | \$796.42 | \$740.00 | Used average revenue from 2015-2019 fundraisers | |
| CITE Provision for Student Presentation Award | \$400.00 | \$400.00 | \$400.00 | Assumed consistent 2020 is same as 2019 | |
| Monthly Luncheons | \$29.62 | \$197.68 | \$80.00 | Assumes average attendance, \$15 student rate and \$26 regular rate at Winnipeg Winter Club | |
| Technical Tours | \$0.00 | \$100.00 | \$0.00 | Aiming to be budget-neutral event in future | |
| Miscellaneous | \$0.00 | \$60.00 | \$0.00 | | |
| TOTAL REVENUES | \$2,112.32 | \$2,267.41 | \$1,920.00 | | |
| Expenses | | | | | |
| Website Domain Fee | \$0.00 | \$129.38 | \$90.00 | Budgeted for Wordpress domain renewal fee | |
| Executive Meetings | \$150.00 | \$174.24 | \$175.00 | Budgeted for three meetings | |
| Funding for Student Chapter | \$500.00 | \$500.00 | \$500.00 | Use of funds to be determined collectively between Section and Chapter. | |
| Travel Expenses for Manitoba Section Board Director | \$1,000.00 | \$504.64 | \$1,000.00 | Assuming Manitoba Section to cover travel expenses for 2020 | |
| Student Awards | \$525.00 | \$450.00 | \$525.00 | Student Paper Competition - \$300 1st, \$150 2nd, \$75 3 rd | |
| Monthly Luncheon Shortfalls | \$0.00 | \$0.00 | \$0.00 | | |
| Class of Leadership ITE | \$0.00 | \$750.00 | \$0.00 | | |
| TBD Value-Add for Membership (training, outreach, etc.) | \$1,500.00 | \$935.43 | \$1000.00 | Value-added initiative to be determined that will further ITE mission locally | |
| CITE Conference Bid | \$0.00 | \$0.00 | \$200.00 | Budgeted for potential costs | |
| Miscellaneous | \$100.00 | \$0.00 | \$100.00 | | |
| TOTAL EXPENSES | \$3,775.00 | \$3,443.69 | \$3,590.00 | | |
| Profit/Loss | -\$1,662.68 | -\$1,176.28 | -\$1,670.00 | | |

5 SECTION ACTIVITIES

ITE Manitoba held a variety of events throughout 2019. Save for the summer break, a different event was held each month. Here is an overview of our 2019 activities, with further details to follow:

| Month | Event |
|-----------|---|
| January | Technical Luncheon |
| | Scott Suderman, C.E.T., P.Eng., from Stantec presented on the <i>Detailed Design of the</i> |
| | PTH3 and LaVerendrye Boulevard Roundabout. |
| February | Technical Luncheon |
| | Jeff Crang, P.Eng., PTOE from Dillon Consulting Ltd. presented on <i>Planning and Design of</i> |
| | Fermor Avenue (St. Anne's Road to Archibald Street). |
| March | Technical Luncheon |
| | Rob Poapst, M.Sc., P.Eng., from MORR Transportation Consulting presented on the TAC |
| | Bicycle Infrastructure Safety Study: What We Heard from Practitioners and Cyclists. |
| April | Technical Luncheon |
| | Craig Milligan, Ph.D., P.Eng., from MicroTraffic and Fireseeds North Infrastructure |
| | presented on Short-term camera deployments for rural traffic safety studies: Case studies |
| | from Western Canada. |
| May | Technical Luncheon & Kean Lew Memorial Student Paper and Presentation Prize |
| | Karalee Klassen Townsend, EIT from the University of Manitoba presented and received |
| | the award for her research on Using Rear-Axle Weights to Improve the Accuracy of Class |
| | 3 and Class 5 Vehicle Classification. |
| June | Technical Luncheon |
| | Adam Budowski, M.Sc., EIT, from Winnipeg Transit presented on <i>Integrating Bus Routes</i> |
| | in Southwest Winnipeg with the Southwest Transitway. |
| July | Summer Break |
| August | |
| September | Technical Tour |
| | Chris Baker, MCIP, RPP and Greg Propp, P.Eng. from the City of Winnipeg led a bike tour |
| | through downtown Winnipeg. |
| October | Fundraiser |
| | Third annual Escape Room Tournament at The Real Escape |
| November | Workshop |
| | Brian Malone of CIMA+ led a workshop on the TAC/CITE Canadian Guide to Traffic |
| | Calming – Second Edition (2018). |
| December | Technical Luncheon & Annual General Meeting |
| | David Wiebe, P.Eng, PTOE from Dillon Consulting presented on the <i>Portage Avenue and</i> |
| | Main Street Transportation Study. |

5.1 Technical Luncheons

The ITE Manitoba Section endeavors to hold monthly meetings where members and friends of ITE can network, enjoy a lunch together and take-in engaging, relevant transportation engineering topics. There were seven technical luncheons in 2019, with an average attendance of 25 people.

These meetings offer an excellent opportunity for all members to keep abreast of what is going on in the profession in Manitoba and beyond. Student members are strongly encouraged to attend and are charged a discounted rate. Each presenter has their lunch paid for by the Section for their generous donation of time.

We continue to hold our luncheons at the Winnipeg Winter Club with catering provided by Urban Prairie Cuisine. Luncheon fees were \$26 for members and \$15 for students. Events are advertised and tickets are purchased through CITE's website.

Here are some details and photos from our 2019 luncheons:

| Speaker | Topic | Attendance |
|-------------------------|---------------------------------|-------------|
| Scott Suderman, C.E.T., | Detailed Design of the PTH3 and | Members: 37 |
| P.Eng. from Stantec | LaVerendrye Blvd Roundabout | Students: 1 |

Scott's presentation shared some of the key design considerations and solutions incorporated into the detailed design for the proposed multi-lane roundabout that will accommodate development in the City of Morden and effectively serve as an entrance to the City. Items that were discussed were site context, high speed entry design, pedestrian and cycling accommodation, vertical design, construction details and traffic staging.



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January 23, 2019

| Speaker | Topic | Attendance |
|---------------------|--|-------------|
| Jeff Crang, P.Eng., | Planning and Design of Fermor Ave (St. | Members: 18 |
| PTOE from Dillon | Anne's Rd to Archibald St) | Students: 1 |
| Consulting | | |

Jeff's presentation focused on the transportation planning and design aspects of the Fermor Avenue corridor. New features of this arterial currently undergoing reconstruction include a pedestrian-cyclist underpass, smart channels, raised crossings, accessibility for the visually challenged, cross-rides, and improved traffic operations and safety through the use of access management and auxiliary lanes. An overview of the traffic staging plans was also provided.



| Speaker | Topic | Attendance |
|--------------------|--|-------------|
| Rob Poapst, M.Sc., | TAC Bicycle Infrastructure Safety Study: | Members: 24 |
| P.Eng., from MORR | What We Heard from Practitioners and | Students: 2 |
| Transportation | Cyclists | |
| Consulting | | |

The Transportation Association of Canada (TAC) is currently completing a study to develop a better understanding of the safety performance of different types of bicycle facilities. Rob's presentation told the following story:

- State of Canadian affairs
- Lack of crash and volume data for safety analysis
- What the research tells us about bicycle infrastructure safety
- What cyclists tell us about bicycle infrastructure safety
- Where do we go from here?



| Speaker | Topic | Attendance |
|---------------------------------|--|-------------|
| Craig Milligan, Ph.D., P.Eng., | Short-term camera deployments for | Members: 12 |
| from MicroTraffic and Fireseeds | rural traffic safety studies: Case studies | |
| North Infrastructure | from Western Canada. | |

Compared to urban intersections, those on rural highways have comparatively lower availability of ITS sensors to support traffic studies. Traditional data collection efforts for rural traffic studies have relied on low-tech, manual processes. However, consultants have recently started using portable camera deployments for rural intersection improvement studies. Recent advances in artificial intelligence and deep learning computer vision have helped transform portable cameras from simple tools for counts and observational studies into sophisticated ITS sensors.

Using six rural case studies, Craig's presentation demonstrated how several consultants used portable camera deployments to obtain high resolution data and intelligence. The case studies included a dump access road and a resort access intersection in BC, an at-grade rail crossing in Alberta, the site of a potential future interchange on the Yellowhead Highway in Saskatchewan, and two intersections on the Trans-Canada Highway in Manitoba.

| Speaker | Topic | Attendance |
|----------------------|---|-------------|
| Karalee Klassen | Using Rear-Axle Weights to Improve the | Members: 15 |
| Townsend, EIT from 🥻 | Accuracy of Class 3 and Class 5 Vehicle | Students: 4 |
| the University of | Classification | |
| Manitoba | | |

Karalee is the recipient of the 2019 Kean Lew Memorial Student Paper and Presentation Prize. She is a graduate student at the University of Manitoba completing a M.Sc. in Civil Engineering. Her thesis research focuses on traffic monitoring; specifically the improvement of the traffic monitoring program in Manitoba.

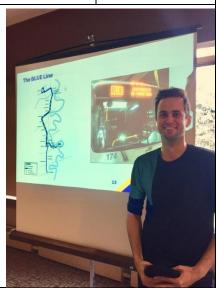
Due to the similarities between these vehicle types, it can be difficult for counting equipment to accurately classify them. This research project was completed to: (1) identify how the current classification algorithm differentiates between these vehicle types; and (2) determine if incorporating rear-axle weight into the classification algorithm can reduce the possibility of misclassification.



December 19, 2019

| Speaker | Topic | Attendance |
|----------------------------|-------------------------------------|-------------|
| Adam Budowski, M.Sc., EIT, | Integrating bus routes in southwest | Members: 20 |
| from Winnipeg Transit | Winnipeg with the Southwest | Students: 6 |
| | Transitway. | |

Adam outlined the process undertaken to integrate bus routes in southwest Winnipeg with the Southwest Transitway, which will open to passengers in April, 2020. Winnipeg Transit is proposing a new type of service model that was taken to the public during a one-month public engagement campaign. Winnipeggers had the opportunity to share their input with the project team through an online survey, project email and phone line, and in-person at seven "portable" open house events. Public input gathered during engagement was used to help refine the proposed network which will be brought forward to City Council this fall.



| Speaker | Topic | Attendance |
|-------------------------------|--------------------------------|-------------|
| David Wiebe, P.Eng, PTOE from | Portage Avenue and Main Street | Members: 20 |
| Dillon Consulting | Transportation Study | Students: 6 |

The study involved microsimulation of several alternatives to re-introduce at-grade pedestrian crossings to the iconic intersection of Portage Avenue and Main Street. The study approach involved modelling using VISSIM and VISWALK software, which returned performance measures for vehicles, pedestrians, and transit vehicles. An iterative approach was used to test and refine alternatives for modifying the physical layout and traffic control systems at the intersection. A preferred alternative was selected, and a recommended concept design was developed, which identified key challenges for implementation.



5.2 Annual General Meeting

The Annual General Meeting was held on December 19, 2019 at the Winnipeg Winter Club, followed by a technical luncheon. The Annual General Meeting included a summary of the Manitoba Section's activities through 2019, an update on the new Section Director role, discussion on a potential bid to host the 2022 Conference, review of the proposed budget for 2020, and congratulations to members who had notable achievements in 2019.

5.3 Bike Tour

| Tour Facilitators | Topic | Attendance |
|-----------------------------|---------------------------------|-------------|
| Chris Baker, MCIP, RPP and | New bike facilities in downtown | Members: 11 |
| Greg Propp, P.Eng. from the | Winnipeg | |
| City of Winnipeg | | |

ITE Manitoba held its first bike tour of in downtown Winnipeg on Tuesday, September 17th. The tour started at The Forks and visited new bike facilities in the downtown. Thank you to Chris Baker and Greg Propp from the City of Winnipeg who assisted with organizing and facilitating the tour. We received lots of positive feedback from participants and hope to organize another bike tour soon!





5.4 Escape Room Tournament Fundraiser

| | Location | Attendance |
|----------|---|-------------|
| oi Oi | The Real Escape Canada and Carbone Coal Fired Pizza | Members: 19 |
| 0 | | Students: 2 |
| | | |

In October 2019 we held our third annual ITE Manitoba Escape Room Tournament fundraiser. The event was held at the Real Escape Canada, with dinner afterward at Carbone Coal Fired Pizza. The 2019 event was smaller than previous years, with 21 attendees separated into four teams. Each team completed two escape rooms. Unlike previous years, the teams were created by the fundraiser organizing committee. This allowed the teams to be relatively balanced in terms of previous experience.

Teams were named after historical figures in Transportation Engineering, including Eugène Alfred Hénard, French pioneer of roundabouts; Sir Colin Douglas Buchanan, British town and transport planner; Hans Monderman, Dutch creator of the "Shared Space" approach to transport planning and design; and Georges-Eugène Haussmann, French supervisor of Napoleon III's "renovation of Paris", which created many of the City's iconic boulevards.

TEAM HAUSSMANN

GEORGES-EUGÈNE HAUSSMANN, commonly known as Baron Haussmann; (27 March 1809 – 11 January 1891), was a prefect of the Seine Department of France chosen by Emperor Napoleon III to carry out a massive urban renewal program of new boulevards, parks and public works in Paris commonly referred to as Haussmann's renovation of Paris.

Beginning in 1854, in the centre of the city, Haussmann's workers tore down hundreds of old buildings and cut eighty kilometres of new avenues, connecting the central points of the city. Buildings along these avenues were required to be the same height and in a similar style, and to be faced with cream-coloured stone, creating the uniform look of Paris boulevards.



Text & Image: Wikipedia

Teams were scored based on the time they took to complete their rooms, normalized against the best time on record for each room. Scores were then adjusted based on team experience and the number of hints the team used.

Team Haussmann won the competition, despite being the least experienced team. Their lack of experience gave them a favorable adjustment factor, but their performance was so dominant that they still would have won without that adjustment!

The event was enjoyable for the attendees, and it was also financially successful, thanks to several generous sponsors. Sponsors could select one of three sponsorship levels, with each level allowing the sponsor to select a different number of "perks". These included advertising at the event, on the website, and at monthly luncheons.

After three years of Escape Room Fundraisers, our members and friends are now quite familiar with the rooms at The Real Escape Canada. While new rooms are being added, they aren't being added fast enough to allow a new experience for our attendees every year. As such, we're looking forward to a different Fundraiser event in 2020.



November 27, 2019

5.5 CITE/TAC Traffic Calming Workshop

| Speaker | Topic | Attendance |
|-------------------------|------------------------------------|-------------|
| Brian Malone from CIMA+ | TAC/CITE Canadian Guide to Traffic | Members: 25 |
| | Calming – Second Edition (2018). | Students: 2 |

In November, the Manitoba Section held a workshop on traffic calming. Brian Malone led the workshop, which served to introduce the new TAC/CITE *Canadian Guide to Traffic Calming – Second Edition (2018)*. The workshop included discussion on the principles of traffic calming for both reactive operational retrofits and proactive approaches for new streets. Brian was one of the key authors of the 2018 *Guide*, and he was an engaging and informative workshop leader.

Thank you to CITE's Technical Liaison Committee for helping us organize the workshop in Winnipeg!









5.6 Website

The ITE Manitoba section maintains a website at http://www.itemanitoba.com/ to keep members informed about ongoing activities throughout the year. The website contains information about the section, contacts, and notices for upcoming events.

The website also includes the Section's (draft) charter, by-laws, annual budgets and previous Annual Reports. The website is an ideal location to provide this information to members and other visitors to the site. It also provides a means of increasing transparency in the organization.

ITE Manitoba events are also posted on the CITE website to make use of the online registration platform.

5.7 Section Charter and By-Laws Update

In October 2013, the Section executive completed a review and update of the existing charter and bylaws. The draft versions of both documents were submitted to the CITE District in early 2014. At the time of this report, both documents are awaiting final approval of the District. We understand that this will occur after ITE International updates District charter information after the recent re-organization (One ITE).

6 STUDENT CHAPTER ACTIVITIES

The University of Manitoba is the host of the local student chapter to the ITE Manitoba Section. They continue to be one of the most active chapters in ITE, with regular participation at CITE conferences and international ITE meetings, including the Collegiate Traffic Bowls.

Full details of their activities are included on their website: http://www.iteumanitoba.ca/

7 AWARDS AND ACHIEVEMENTS

7.1 ITE Manitoba Kean Lew Memorial Student Paper and Presentation Prize

Beginning in 2010, the Manitoba Section's annual student paper and presentation prize was renamed the Kean Lew Memorial Student Paper Prize after Mr. Kean Lew, P. Eng. a graduate of the University of Manitoba and former member of the ITE Manitoba Section. He was a friend of many of the members and tragically lost his life in 2009.

Requests for papers from students in the Civil Engineering program at the University of Manitoba are made at the beginning of the calendar year. Submitted papers are reviewed and scored by a panel of volunteer judges drawn from ITE Manitoba Section members, and the top three are invited to participate in the presentation competition. The presentations are graded by the judges and final scores

are tallied. The winner is invited to present at a Section luncheon and is eligible for entry into the CITE Student Presentation Competition.

Congratulations to Karalee Klassen-Townsend and Michael Olfert, both students from the University of Manitoba, who received first and second place, respectively.

7.2 CITE Awards

This year, three members of ITE Manitoba won national awards from CITE. Congratulations to:

- Jeannette Montufar, Ph.D., P.Eng., PTOE, RSP, FITE, FCAE, FEC for receiving the *H. Robert Burton Distinguished Service Award;*
- Rebecca Peterniak, M.Sc., P.Eng., RSP₁ for receiving the Rising Star Award; and
- Karalee Klassen Townsend, EIT, for receiving the Student Presentation Award.



Left to right: Jeannette Montfuar, Rebecca Peterniak, Jen Malzer, Karalee Klassen Townsend

7.3 LeadershipITE

In 2019, ITE Manitoba member, Garreth Rempel, was accepted into the LeadershipITE Class of 2020. We are looking forward to hearing about Garreth's experience and hope more ITE Manitoba members will pursue this opportunity in the future. ITE Manitoba was pleased to provide some financial support to cover some of Garreth's expenses. Congratulations Garreth!

8 SUMMARY

The ITE Manitoba Section Executive facilitated a full year of activities, including technical luncheons, an Escape Room Tournament fundraiser, a workshop on traffic calming, and a bike tour in downtown Winnipeg. All events provide invaluable networking and information sharing opportunities within Manitoba's transportation engineering community. This year, three Manitoba Section members were recognized for their contributions by CITE with national awards.

The Executive appreciates the ongoing support of ITE members with volunteering for presentations, on the Escape Room Tournament organizing committee, and with participation at other events. Thank you also to our generous sponsors. The Executive looks forward to continued Section health in 2020.