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## **Towards Equality Women in Transportation**

Who remembers starting engineering and being told, "Look left. Look right. Those folks won't be there by January"? This may no longer be practice or even folklore but, sadly, there is some truth to the statement. According to Harvard Business Review, it's women who are disproportionately leaving engineering.<sup>1</sup> Only, they're leaving after graduating. And after practicing. After being measured as capable engineers. Of the number of women who stay, many more are not achieving their goals or reaching their full potential

This feature is a collaborative effort from ten contributors sharing their perspectives on women in the transportation profession. It is a culmination of years of conversation, including receptions at the Regina and Kelowna conferences, and a realization that there are a number of excellent resources that are being put into practice across Canada. We, your authors, hope to ignite conversation by sharing these resources alongside our own experiences to demonstrate that improvements can and are being made for women in transportation. We hope we make way for continued conversation about women in the workplace. What works and how can you tell? There's a lot at stake to get it right.

Continued on page 14...



<sup>1</sup> An estimated 40% of female engineering graduates either quit or never enter the practice.

### president's ponderings



JEN MALZER, P.Eng. Canadian District President president@cite7.org

Hi everyone and happy new year!

It's been a busy few months and I'm happy to share some news from our District:

Bruce Belmore for ITE Vice President: The Canadian District has a great history of sending strong leaders to serve at the international level. The Executive and Board couldn't be more pleased that Bruce Belmore has been selected as one of this year's candidates for ITE International Vice President. I've personally come to know Bruce as an exceptional team member and wish him well on the campaign trail. Get to know Bruce in this edition's Member Highlight.

**McMaster University Student Chapter**: Welcome to our newest student chapter! Edward Soldo (CITE's Vice President) was so delighted to go back to his alma mater to be able to join their inaugural event. Our student chapters now outnumber our sections!

excite Summit in June: Just last week, the Board voted to support an opportunity to gather leaders from excite and our student chapters and also partner with the City of Calgary and the Canadian Institute of Planners to bring transportation guru Janette Sadik Khan to speak in Canada. excite, with the support of the Executive, will develop a summit around this inspiring keynote speaker. More details to come!

**AV Conference**: The era of driverless vehicles is just around the corner. How can we leverage this technology to help create the kinds of cities we want to live and work in? CITE is working with the Conference Board of Canada to hold a two day conference in Toronto in April – *Automated Vehicles* 2017: Planning the Next Disruptive Technology. See page 11 for details.

**Call for TAC Appointees**: We had a number of excellent candidates step forward and I am happy to announce the following appointees who will be joining at this year's TAC spring meetings:

- CV/AV Working Group: Erin Toop, City of Edmonton
- Sustainable Transportation Standing Committee: Justin Bak, City of Toronto
- · Geometric Design Standing Committee: Marcia Eng, Urban Systems
- Joint Active Transportation Sub-Committee: Marion Mithani, EcoCounter

**Women in ITE Task Force**: It's serendipitous that this issue of Transportation Talk with our feature article on Women in Transportation aligns with the initiation of an ITE women's task force. I'm so pleased that Rebecca Peterniak will be representing the Canadian District on this task force. This will be a great way to keep the conversation going on inclusivity in our profession.



### president's ponderings



Saskatchewan Section Meeting and kickoff for Bruce's campaign for ITE Vice-President

LeadershipITE's Class of 2017: LeadershipITE is moving into its fourth year and the Canadian District will be represented by two strong candidates: Ryan Vanderputten (City of Calgary) and Tom Baumgartner (Watt Consulting). They just returned from their first of three in-person meetings, this one as part of the TRB conference, and will now be working on two really important projects. Ryan's group will be looking into advancing transportation curriculum at the university level and Tom's group will be starting a little earlier to look at school-age kids and getting them excited about transportation as a profession.

**Collaboration**: With so many exceptional groups furthering transportation, this is a great time for collaboration in addition to supporting our own research products. I've recently had calls with APBP and NACTO; we've identified good overlap for our organizations and I hope to report more in 2017.

Closer to home, I've enjoyed meeting with our own sections and student chapters. I love learning about how each operates. In Saskatchewan, I appreciated getting speaker feedback and thought that that was such a nice service to help their members improve.

I'm looking forward to visiting Manitoba in February (I really am!) to race a canoe with captain Mike Skene and three others down the frozen river and, of course, to speak with my alma mater at the University of Manitoba - a true student chapter powerhouse.

Best wishes,

**JEN MALZER** 

Canadian District President

### district director's message

January 1 marked the start of my second year as Canadian District Director and, my, things have changed since I assumed the position 12 short months ago from my colleague and good friend Bruce Belmore (who you may have heard is running for ITE International Vice-President against Ken Ackeret from the Western District). Visit the website, read the Journal, attend a meeting, and you will hear about the "New ITE". Personally, I'm always leery when someone tells me that my favourite product or service is now "new" or "improved". Isn't that just some marketing person's spin tactic to persuade you to buy more or overlook something?

So what does this New ITE mean to you, the member, and is it really new? Let me start with the second question first.

As noted in my first Transportation Talk address last year, ITE Headquarters has undergone a massive transformation with the hiring of new staff in all key portfolios. Ask anyone who has been involved in ITE for any period and they will tell you its like a breath of fresh air. While still learning about the organization and its nuances,



GENE CHARTIER, M.A.Sc., P.Eng., FITE Canadian District Director director@cite7.org

Executive Director Jeff Paniati and the team in Washington have worked tirelessly to find efficiencies and enhance the member experience. In only one year, we have witnessed marked improvements in service delivery, member engagement, communication, and Annual Meeting participation, not to mention growth in our two primary metrics – membership and net revenue. For the first time in years, ITE added members in 2016, halting a disturbing downward trend. But more amazingly, the organization went from a (large) deficit financial position to a modest surplus, with improvements experienced in all cost centres.

But staffing changes are not the only thing new about ITE. Elected leadership understands that our organization needs to grow and change to attract and retain members. We need to be "recognized" as a leader in the transportation community, seen as "relevant" to address key transportation issues, "add value" for our members, and be "connected" to our partners and the broader community. The membership survey many of you participated in last year highlighted several important items for us to consider in this quest:

- Make decisions based on what is important to our members. According to the survey, the top three reasons people become ITE members are to: 1) Meet and network with others involved in the transportation industry; 2) Stay current on what's happening; and 3) Gain access to technical resources and publications.
- Expand the tent, but remember our roots. Although most survey respondents felt a name change was not needed, they did believe that ITE needs to engage transportation practitioners beyond engineers. We are becoming a more inclusive organization in many ways our members, our disciplines, our interests. Incorporating the tagline "A Community of Transportation Professionals" into the ITE logo is but one effort to demonstrate this direction.
- **Provide value.** ITE can be of benefit to you, the member, by helping you find solutions, keeping you in the know, growing your career, creating connections, and making your voice heard.

I'm sure you can tell that I am excited about the direction the "New ITE" is headed and am glad to be a part of this remarkable change! If you haven't already, I would encourage you to read the "2016 Year in Review" article written by Michelle Birdsall of ITE HQ staff that appeared in the December 2016 issue of ITE Journal. Michelle summarizes all the great initiatives underway at ITE in one place.



### district director's message

Moving on to other ITE news, the International Board of Direction met in early January in Washington to close out business for 2016 and begin our program for 2017 under the leadership of new ITE International President Shawn Leight, Vice President Michael Sanderson, and Past President Paula Flores Benway. At the meeting, the Board confirmed the following major initiatives for 2017:

- Vision Zero
- Transportation and Health
- Smart Communities
- Connected and Autonomous Vehicles
- Global District (formerly known as the International District)
- Trip Generation

Watch for further updates on these initiatives in ITE Journal and on the ITE website. Reach out to ITE HQ staff if you have an interest in helping. We can always use more hands!

The meeting in Washington also served as the kick-off to the 2017 LeadershipITE program. The Canadian District is well represented again this year by Tom Baumgartner from Watt Consulting in Kelowna and Ryan Vanderputten from the City of Calgary. While in Washington, the Board received a presentation on the state of the program from Marsha Anderson Bomar, the LeadershipITE coordinator. Most graduates speak highly of LeadershipITE and how it has helped their careers. I would encourage you to think about applying this fall for the 2018 class, especially if you reside east of Manitoba. Only two eastern Canadians have participated to date!

And finally... planning for the Joint ITE/CITE 2017 Annual Meeting and Exhibition in Toronto is in full swing. The call for abstracts generated an astounding response, with over 350 submissions received! By comparison, ITE received just over 200 abstracts last year and attendance at the Anaheim meeting was over 1,200 people. Not surprisingly, expectations for a well-attended event in Toronto are high. We really need CITE members to show their support and attend the conference in record numbers.

As Local Arrangements Committee chair, I can tell you that our entire committee is dedicated to making Toronto 2017 an event to remember. The meeting will still feature the sessions and activities you've come to know and

love with the CITE Annual Conference, including the Student Mixer, the Annual Awards Luncheon and, of course, the Street Hockey Game. So, please, please, please make Toronto your conference choice in 2017! Let's show our colleagues south of the border how we Canadians roll!

If there is anything you want to share about ITE, feel free to drop me an email at director@cite7.org. See you in Toronto!

**GENE CHARTIER** Canadian District Director



L-R: Gene Chartier (Canadian District Director and 2017 ITE Local Arrangement Committee Chair, Toronto) with ITE International President Shawn Leight and Scott Poska (2018 ITE Local Arrangement Committee Chair, Minneapolis).

### 2017 CITE elections

# CALL FOR CANDIDATES FOR CITE EXECUTIVE COMMITTEE

The Canadian Institute of Transportation Engineers (CITE) is seeking candidates to serve on its Executive Committee for the 2017-2019 term. Further information about the duties and responsibilities of the District President, District Vice-President, and District Secretary-Treasurer positions are available at cite7.org/elections.

Individuals interested in serving for these volunteer positions must be ITE members in good standing and willing to commit the time necessary to carry out the duties of office. Reasonable travel expenses to attend meetings on CITE business are reimbursed.

The written nomination submitted in support of the candidate shall include a description of the nominee, their qualifications for the position, and signatures supporting the nomination from the individual and two other ITE members in good standing. The deadline for nominations is March 20, 2017 at midnight PDT. Nominations shall be submitted by email to:

Gene Chartier, M.A.Sc., P.Eng. Canadian District Director and Nominating and Elections Committee Chair

Email: director@cite7.org Tel: 416.479.9684 x501

Nominees will be informed of their acceptance and provided further information regarding the election process prior to March 27, 2017. Election results will be announced during the 2017 Joint ITE/CITE Annual Meeting and Exhibition to be held in Toronto from July 30 to August 2, 2017.

# NOMINATIONS DUE **MARCH 20, 2017**

#### PREPARATION AND DISTRIBUTION OF BALLOTS

When ballots are prepared for officer election, the name of each nominee will be listed in alphabetical order. At least 60 days prior to the Annual General Meeting, each eligible Canadian District member shall receive the electronic ballot notification to vote online. This notification will be distributed by email.

Once notified of acceptance, each nominee shall prepare a statement of up to 500 words setting forth their aspirations, ideas, and proposal as to the office nominated, and provide a digital photograph. If supplied by the specified due date, the statement and photo will be distributed with the ballots, made available on the CITE website and published in Transportation Talk.

#### **CAMPAIGN RULES**

Candidates for the District Executive Committee election shall abide by the following campaign rules:

- Any expenses incurred during the campaign are not eligible for reimbursement by CITE, including attendance at the 2017 Joint ITE/CITE Annual Meeting and Exhibit in Toronto.
- Communication efforts will be limited to the candidate information that is distributed with the ballots and published on the CITE website and in *Transportation Talk*. There will be no separate mail-outs or individual email campaign notices to members.
- Any current CITE Executive Committee member who is a candidate shall not take advantage of their position during the campaign.

Any breach of these rules may result in the Nominating and Elections Committee revoking the nomination of that individual for office.



### my favourite...

In this feature, fellow CITE members share favourite transportation tidbits from across Canada. For this winter edition, Kim tells us about two of her favourite examples of...

### ...design for accessibility

### Kim Fisher

Active Transportation Education Planner Transportation Planning, The City of Calgary

The first example of how our Calgary Roads group has improved accessibility can be seen on 2 Street NW, which connects the north and south communities of Crescent Heights

and Mount Pleasant across busy 16 Avenue N.W. (Trans-Canada Highway). People walking, cycling, and driving use this local street to access nearby homes, schools, businesses, and schools. 2 Street NW is also an on-street bikeway and gateway to the pathway system and downtown Calgary.

Calgary winters can range from cold weather and snow to warm temperatures as a result of seasonal chinooks. South of the intersection, a neighbourhood gate limits car access into the community but has space on the street for people cycling. In the winter, it can be challenging for snow-clearing crews to get to this location to clear the way for people cycling since it requires hand work and does not fall on a high priority route. Through a simple solution, the City of Calgary Roads crew have added seasonal signs and repurposed shovels to this location so community members can clear the way for their neighbours. It's a quick and easy fix for a historically challenging snow-clearing location and encourages community ownership of a neighbourhood access point. I've loved watching Twitter stories of how popular this little measure has become.

My second favourite is an innovative solution for tree grates in the community of Inglewood. 9 Avenue SE is possibly Calgary's best main street and is, in fact, ranked top 10 in Canada by the Canadian Institute of Planners. Part of its historic legacy is narrow sidewalks and small setbacks near historic buildings. To steal a bit of walking space back, the area District Manager realized you could treat the space around the tree with permeable gravel and landscaping. The tree grates along 9 Avenue SE were planted with wheat; they look great and give more space for all the foot traffic that passes and lingers in Inglewood.



**Inglewood Tree Grates** Calgary, Alberta



Have a topic idea? Want to be featured in a future edition? Contact us at communications@cite7.org!



### north of the 49th

In this new feature, we highlight research from across Canada that asks relevant questions and offers insight and solutions to pressing transportation issues. For this first edition, we focus on good design for accessibility in winter conditions.

### **Winter Wheelability**

### Hadass Eviatar wrote "Snow in Winnipeg is nothing unusual...I have been in Winnipeg for nearly 20 years, and I still marvel every year at the complicated relationship we have with our harsh, beautiful climate. We complain bitterly as we shovel yet we never miss a beat or close anything down in conditions that would paralyse a lesser city." For many Canadians, this quote reflects their winter experience. However, for the almost two million Canadians who experience limitations in their walking or mobility,<sup>2</sup> winter conditions can create situations where it is nearly impossible to engage in one's community in ways that are possible in other seasons. Many are familiar with the idea and importance of creating accessible built environments that are inclusive of people with disabilities. However, fewer have considered the dynamic aspect of winter and how accessible features such as ramps can become inaccessible when covered in snow and ice, or how wheelchair-designated parking lines

### JACQUIE RIPAT, PH.D. O.T. REG. (MB), UNIVERSITY OF MANITOBA

"disappear" in snow-covered parking lots. Research has supported that, for people with disabilities, life satisfaction is more closely aligned with their community participation than with their impairment or health status.<sup>3</sup> Thus, the focus of our research has been on 1) understanding the issues faced by people with mobility impairments residing in cold weather climates and 2) using the findings to develop evidence-based recommendations and technologies to address the issues and promote community participation. We have used the environmental factors identified in International Classification of Functioning, Disability and Health<sup>4</sup> to focus our research on the ways that the natural environment, products and technology, supports and relationships, attitudes, and/or services, systems and policies can create barriers to, or alternatively can promote, winter community participation.





### transportation 101

Through this work, we have established a few key findings:

- 1. Community participation is more difficult, or even impossible, when sidewalks, curb cuts, streets, parking lots, parking spaces, and bus stops are not properly cleared of snow, not cleared in a timely manner, or when frozen ruts and high snow banks prevent ability to access community locations.<sup>5,6</sup>
- 2. Available, accessible, and flexible vehicular transportation (either private or through the support of family or friends) is instrumental in maintaining community participation in the winter.<sup>5,7</sup>
- 3. Winter-specific challenges occur for those who use mobility devices; for instance wheelchair tires and casters get stuck in snow, wheel traction is reduced on ice-covered surfaces such as ramps, power wheelchair batteries discharge more rapidly in cold weather, and hands are more likely to experience thermal injuries (for example, when pushing wheelchair rims).<sup>5</sup>
- 4. The general public lacks awareness of the additional winter challenges faced by people with disabilities. For example, snow-clearing operators often push snow onto the sidewalk making sidewalks inaccessible and impassable for those using mobility devices.<sup>5,6,8</sup>
- 5. Winter takes a disproportionate toll on individuals with mobility impairments, resulting in isolation, additional frustration, and concern for personal safety for many.<sup>5,6,7</sup>

Overall, our research has confirmed that, while many people with mobility impairments do reduce their community participation in the winter,<sup>5</sup> winter community participation needs to be viewed as a right.6 Through these research projects, we have identified the interconnectedness of the environment in creating challenges, leading us to focus on taking a multi-dimensional approach to identifying solutions. We have also established the importance and value of involving researchers and stakeholders from many sectors in this work - including engineers, rehabilitation specialists, service providers, community organizations, policy-makers, industry, and most importantly, individuals with mobility impairments. We are now beginning the next stages of research that will involve drawing stakeholders from across Canada together as we begin to identify ways that we are able to promote winter community participation for Canadians with mobility limitations. If you are interested in joining us in this area of research, please contact me at jacquie.ripat@umanitoba.ca.



Jacquie Ripat, Ph.D., OT Reg (MB) is an Associate Professor in the Department of Occupational Therapy at the University of Manitoba. Her research focuses on understanding the interaction between people who use assistive technologies and their environments, in order to promote community participation of people with disabilities.

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### north of the 49th

### Winter Pedestrian Accessibility

### **IDAPT CENTRE FOR REHABILITATION RESEARCH, TORONTO REHABILITATION INSTITUTE-UHN**

Winter presents many challenges to the safety and mobility of vulnerable older people and people with disabilities. The number of falls in winter conditions has been increasing. This has created a sense of fear and discomfort for people to leave their homes and limited their independence by socially isolating themselves indoors. It has been shown that those who had previously fallen in these environments were more likely than others to restrict their activities. The winters of 2014 and 2015 posed particularly difficult and dangerous challenges for many people living in North America.

Our research into this issue, which has included a survey study, found that the key elements decreasing winter accessibility were icy sidewalks and puddles at street crossings and curb ramps. While communities have recognized the need to improve snow and ice removal, little attention has been paid to curb ramp design which is especially ineffective in winter when the bottom of the

ramps pool with rain, snow, and ice, making it hazardous and inaccessible to nearly all users. We brought a new insight to the concept of 'design for all' from a built environment perspective, especially in the context of winter settlements, and extended the concept to 'design for all in all weather conditions'.

The big question that we will continue to focus on will be: how can we deliver a barrier free built environment for all ages of people with all kinds of abilities in all weather conditions? Our specific goal is to develop guidelines and products that make it easier and safer for everyone to move around outdoors in winter.

We have been investigating two specific recommendations:

- Alternative designs to curb ramps
- Alternative sidewalk and street crossing pavement types

#### RELATED RESEARCH & FURTHER READING

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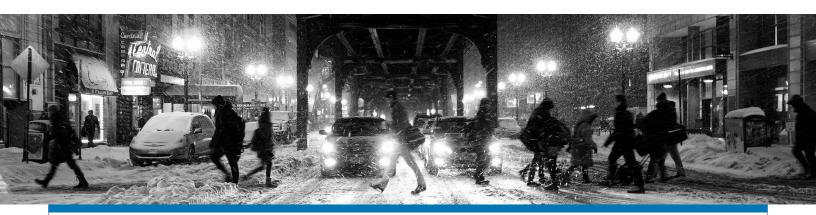
### transportation 101

We would like to work with professionals involved in the policy, design, creation, and maintenance of transportation systems to further our research. iDAPT is organizing an international conference on Slips, Trips, and Falls this June (www.SlipsTripsFallsTRI.com). We plan to address various thematic topics, incorporating experience and knowledge of basic mechanisms through to application within industry, public health, and/or policy. The design of ramps, sidewalks, and other environmental features will be one of the topics and we invite you to attend the conference and participate in the conversation.

Toronto Rehabilitation Institute-UHN is home to some of the world's most technologically advanced rehabilitation research facilities. The iDAPT Centre for Rehabilitation Research brings together the brightest research minds and stateof-the-art technology. It is a unique space where ideas can be cultivated and tested in a real-life setting. The iDAPT Centre's research group on accessibility and safety focus on three broad objectives: 1) increasing safe mobility indoors, 2) increasing safe walking outdoors and 3) increasing safe driving. The overall result will be reductions in falls and road accidents for older people and increased levels of independence resulting from encouraging and facilitating greater safe mobility.



For additional information: Geoff Fernie PhD PEng CEng FCAHS Institute Director, Research Toronto Rehabilitation Institute - UHN Email: geoff.fernie@uhn.ca Website: www.idapt.com



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The Conference Board of Canada Le Conference Board du Canada





CITE is a proud sponsor of this event and we encourage you to participate in the conversation!



### **Member Awards**

Each year, CITE sponsors an awards program to honour outstanding achievement in the transportation profession and distinguished service to CITE. The deadline for nominations is March 1, 2017 with the exception of the Rising Star Award, which is due to the District Vice President by April 1, 2017. For more details, visit cite7.org/awards.



### CITE Rising Star Award

for a member under the age of 35 who has made an impact on the profession, demonstrated the ability to lead the next generation, and implemented innovative techniques to solve transportation problems



### H. Robert Burton Distinguished Service Award

honours an individual with a notable career in the field and a record of service with CITE as the organization's most prestigious award



### **Outstanding** Voluntary Contribution **Award**

celebrates a member or members who have made an outstanding voluntary contribution to CITE or its projects over the course of several vears



### Stan Teply **Outstanding Technical Project Award**

recognizes an outstanding transportation project that has shown significant and proven technical achievement

### **CITE Activity Awards**

These annual awards acknowledge all of the tremendous work done at the local level of CITE. All section and chapter activity report submissions are automatically considered for both the Activity Award and Delta Activity Award in their respective categories. For more information, go to cite7.org/awards.

### **Section Activity Award**

recognizes the overall quality of section activities, either technical or non-technical in nature

### Section **Delta Activity Award**

celebrates those Sections who have achieved overall improvement from year(s) past

### **Student Chapter Activity Award**

recognizes outstanding accomplishments in student chapter activities that achieve the objectives set forth in the Charter

### **Student Chapter Delta Activity Award**

celebrates those Student Chapters who have achieved overall improvement from year(s) past

For eligibility requirements, nomination guidelines & submission





# STUDENT AWARDS & SCHOLARSHIPS



Awards and scholarships offered annually by CITE for students at accredited Canadian universities and colleges. Winners receive free registration and travel to the Annual CITE Conference and recognition at the CITE Awards Luncheon.

Dr. Michel Van Aerde Memorial **Scholarship** \$3,000

For full time students in a transportation doctoratelevel program at a Canadian university.

John Vardon Memorial Scholarship

For full time students in a transportation master's-level program at a Canadian university.

CITE WSP Undergraduate Scholarship \$3.000

Scholarship and potential internship with WSP for an undergrad student in planning, geography, or engineering.



**Student Paper Competition** \$1.500

For students in accredited transportation programs, awarded based on the quality of a paper addressing a transportation engineering subject.



### Student Presentation Competition

Participate in your local CITE section competition and you could be chosen to present at the CITE Annual Conference.

**MARCH 1, 2017** 

**CITE Watt Consulting Group** "Transportation in a Sustainable World Student Award \$1,000

Awarded based on the quality Sponsored by: of writing and demonstrated appreciation of inter-disciplinary collaboration in a 1,000+ word Consulting Group paper.



Canadian Capacity Guide Competition

First: \$500, Second: \$300, Third: \$200

undergraduate student Sponsored by: competition based on the Canadian Capacity Guide for Signalized Intersections and the InterCalc

software.



WSP MMM GROUP

instructions, visit cite7.org/awards or click on an award name above

### feature

... continued from page 1

### RYAN VANDERPUTTEN, M.Eng., P.Eng.

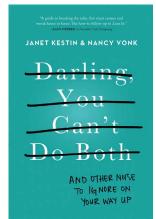
### **Director, Transportation Planning, The City of Calgary**

To be honest, when I was asked to contribute to this article, I didn't feel like I had much to add. That made me realize how important this article is. When one of our female Councilors asked a question around gender equality at The City of Calgary during a recent presentation to Council, I looked around and realized that there really wasn't much "equality" at the management table. Things are changing, but that change probably isn't happening quickly enough.

As a manager, I have always sought out the best talent to hire into my organization. It didn't matter the individual's gender, race, or religion. It was about the right fit for the job. I have hired some truly fantastic women into challenging, demanding roles - not because they were women but because they were the best person to fill that role. I recall hiring a female engineer returning to the workforce after taking time off (seven years) to raise her children. That wasn't what got her the job but, in hindsight, her drive and determination to succeed as both an engineer and a mother was inspiring.

I have realized that there is a unique skill set that women can bring to the workplace. The book Darling, You Can't Do Both by Janet Kestin and Nancy Vonk talks about the struggle that women in the workplace face, as they often are forced to choose between a career and raising a family. The tag line is

the valuable message: and other noise to ignore on your way up. The authors explore the challenge of having kids alongside a demanding career and how motherhood can make you better at your job. "For working mothers, as for effective leaders, agility is a critical requirement. Agility means possessing strong self-awareness, emotional intelligence, flexibility,



conflict management, listening and communications skills. It also means being acutely aware of how others process and respond to our own actions and behaviors." An excerpt from the book was published in 2014 by Marketing Magazine: http://www.marketingmag.ca/advertising/darling-youcant-do-both-rule-to-be-broken-book-excerpt-115112.

There is a grassroots movement in Calgary to encourage women to run for municipal politics: Ask Her, http://ask-her. org. There have also been far too many reports about the bullying of female candidates in the provincial leadership races. I am quickly realizing that this is an issue that needs to be addressed.

### WHAT BULLYING IS COSTING YOUR COMPANY

When you, as the leader of an organization, allow bullying to occur, you create at least three problems:

- 1. The target of the bullying will experience a loss of confidence and an increase in stress that often shows up in health problems. Their performance will decline. They may need more time off to recover. So you have lower performance by at least one person, the target.
- 2. By allowing the bullying to continue you are accepting a toxic culture, prevalent Critter State, and reduced performance and morale. The people witnessing the bullying will have to choose to side with the bully, leave, risk retribution by speaking out, or remain passive and try to stay under the bully's radar. To be non-threatening to the bully they may lower their performance in some way.
- 3. Eventually the target will have no recourse but to leave. Research has shown that the vast majority of targets eventually leave. You now have lost a good employee and have all the costs of a new hire.

Here is what you have to understand, the targets of workplace bullying are not the weakest players—they are often the strongest.

Let's say that again. The common misconception is that, like schoolyard bullying, the targets of workplace bullying are loners, or "weird" or the people who "don't fit." In fact the reverse is true.

Excerpt reprinted from Forbes. Original article by Christine Comaford, 27 August 2016: http://www.forbes.com/sites/christinecomaford/2016/08/27/ the-enormous-toll-workplace-bullying-takes-on-your-bottom-line/#4076a572386e



### towards equality

### THOUGHTS FROM ITE INTERNATIONAL PRESIDENT PAULA FLORES BENWAY

How we treat and nurture our workforce will go a long way in addressing greater societal issues related to diversity in transportation mobility and creating sustainable cities and places.

Minimization of one's career goals makes some women more resolute in navigating leadership paths while others give up, especially in male-dominated fields such as engineering. Whether stemming from a conscious or unconscious response to women in the workplace, the implications of gender discrimination can be negative, frustrating and taxing. Retention of women in the workplace is often a challenge between competing with family choices and the inability of cracking the glass

Are those women just at the table, or do they truly have a voice?

### ERIN TOOP, M.A.Sc., P.Eng.

### Senior Enginneer, City of Edmonton

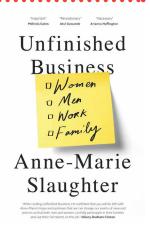
The bias that women are family-oriented and men are career-oriented is pervasive. I was applying for a job and the debate around hiring me included consideration for my life status at the time. Being in my later twenties, childless, and without a partner, I was viewed as volatile. Who knows when I would meet a man and run away with him or become pregnant and choose to take parental leave?

The obvious bias was that, as a woman, I was expected to prioritize all other parts of my life over my career. A less obvious but more concerning bias was that a man is expected to prioritize his career over other parts of his life: career over family.

Imagine a single man in his late twenties applying for a job and being reconsidered because he might meet a significant other soon (and prioritize them) or may choose to be a stayat-home dad? Also, if you are a man, imagine the freedom to make those choices without risking discrimination. Men are very often disrespected for prioritizing family over work.

In her book **Unfinished Business** about balancing family and career for both men and women, Anne-Marie Slaughter says, "most of the pervasive gender inequalities in our society cannot be fixed unless men have the same choices with respect to mixing caregiving and breadwinning that women do." And to make those choices real, she says, "men will have to be respected and rewarded for making them." This is something I think we need to be more aware of in the workplace. Society rewards people for successful careers, but it does not reward people for successfully balancing life's spectrum of priorities.

My younger brother, also a civil engineer, is a leader in bucking this trend. A few years ago, he chose family over work and moved across BC to be with his partner. And, just a few weeks ago, he negotiated with his employer to reduce to a 3-day work week so that he can spend more time investing in other facets of his life. I have often been



envious of his choices and, in reflection, realized that I have tended to over-prioritize my career. This is something I am working on.

I am hoping that this is something we can all work on, as an industry and in our own lives and workplaces. Perhaps we can reward people for their efficiency and quality of work rather than the amount of time they occupy their desk. Perhaps, like my brother, we can more boldly re-examine our work weeks and find a balance that works for us. With this, I think we need to be open to the idea that people can be successful in their jobs and career, even if they break the mould of the previous era. A flexible workplace that supports people's non-work priorities is not only better for women, it is better for everyone. Let's start a new era.

If you are interested in how you subconsciously associate gender with career, try Harvard's Gender-Career IAT: https:// implicit.harvard.edu/implicit/selectatest.html. I recommend following the @manwhohasitall Twitter handle because they invert gender stereotypes to illuminate them.



### **PETER JOYCE, P.Eng.**

### President, Bunt & Associates Engineering Ltd. Vancouver, BC

Our offices in British Columbia and Alberta have been fortunate over the years to have on staff an amazing group of women transportation planners and engineers working alongside their male counterparts. Better still, we've been able to retain most of our female staff, whether it be on return from maternity leaves or weighing options for career changes, with arguably more success than with the men we have on staff.

While some of our female staff participate in resource organizations such as Women in Engineering (WiE), I feel that the perhaps the most significant contributing factor to our enviable retention of female staff is the work culture environment common through all four of our offices. Our corporate management structure is deliberately kept as flat as possible and seeks to avoid the layered hierarchy of more traditional engineering firms. All staff, and women in particular, can feel comfortable that time away from the workplace for reasons such as maternity leaves will not result in a 'losing ground' situation. In fact, the opposite has been our experience where women returning from time away do so with a very impressive focus on work duties and responsibilities; I would go so far as to suggest that the time away served to accelerate their careers forward with a renewed purpose.

Another important contributing factor to staff retention is what I'd refer to as a 'responsible flexibility' as it relates to the performance expectations we have for our employees, men and women alike. As consulting planners and engineers, we are a service business that depends on quality work to satisfy the requirements of our clients. Our staff understand this and work hard to deliver on this. But life happens and we all get thrown curveballs in our own personal worlds that sometimes take front and centre stage. Whether a child is sick at home or has a really big morning concert at school, providing some flexibility for our staff to 'be there with family when it counts' is more than rewarded with an energetic and committed employee knowing that the company supports them. Rarely has it been necessary to remind staff of the responsibility back to the firm that comes with this flexibility, and never to the best of my knowledge with any of our women staff.

Through my work experience over the past nearly 30 years, I firmly believe that the most important factor to staff retention for men and women, far more so than any one resource, is the certainty of a supportive workplace environment that challenges employees to learn, grow, and eventually lead while providing the balance and flexibility to ensure their own personal health and that of their families is never compromised.

#### WHY DO SO MANY WOMEN WHO STUDY ENGINEERING LEAVE THE FIELD?

Susan Silbey and her colleagues explored how the culture within engineering—the shared values, beliefs, and norms—might contribute to the underrepresentation of women in the profession. They conducted a longitudinal study of engineering students to see how "socialization," or learning about the culture of engineering, affects their future job decisions. They found that female students do as well or better than male students in school—but often point to the hegemonic masculine culture of engineering itself as a reason for leaving. This culture manifests in a variety of ways that push women to change their ninds:

- diverging aspirational goals of improving society over time
- self doubt associated with problem solving
- being treated in gender stereotyped ways when exposed to projects requiring collaboration
- being taken seriously in the workplace and assigned interesting tasks as opposed to routine managerial or secretarial jobs

Women's experience of their education differed along two critical dimensions — they encountered a culture where sexism and stereotypes were left unaddressed, and they saw only lip service offered toward improving society — and both of these disproportionately alienated them.

Efforts focused only on changing the curriculum are insufficient because they simply reproduce the norms and practices of the profession. In order to curb the high rates of women leaving the field, engineering programs need to address gendered tasking and expectations among teams, in class and at internship work sites. The culture has to learn to take women seriously.

Excerpt reprinted and adapted from Harvard Business Review. Original article by Susan S. Silbey, 23 August 2016, https://hbr.org/2016/08/why-do-somany-women-who-study-engineering-leave-the-field.



### towards equality

### JAMES DONNELLY, P.Eng., PTOE

### Sr. Transportation Engineer / Principal, Urban Systems Ltd. Kelowna, BC

As a consulting practice that's been around for over 40 years, gender diversity in the workplace has been a topic that has been building in importance over the years for Urban Systems. From the perspective of both women in engineering (including transportation) and women in business (in leadership roles), we've recognized the gap between our desire to be more reflective of the communities we serve and the reality of the makeup of our organization.

At Urban Systems, we certainly don't have it all figured out and, in many ways, we have a long way to go. At the same time, we've made some deliberate efforts on this issue that I believe have us moving in the right direction. Here are a few observations and useful resources:

- 1. Recognize and Acknowledge the Issue. The value of gender diversity is well documented and understood. That being said, the progress towards true gender diversity has been far slower than most would expect. While looking at individual behaviours, decisions, and practices, one usually finds nothing but the best intentions. However, we've acknowledged that the result (too few women in professional and leadership roles) is not acceptable. To acknowledge the issue, we track staff demographics – including gender by professional role - so our progress can be objectively evaluated over time.
- 2. Acknowledge Unconscious Bias. Unconscious bias refers to the assumptions we make about others based on how we've been socialized. We're all subject to it. In the workplace, unconscious bias can create unintended consequences despite its best intentions. Conversations about gender diversity can be sensitive and may trigger responses that undermine productive conversation. At Urban Systems, we've found that a focus on unconscious bias allows people to move past potentially negative reactions, e.g., feeling blamed or seeking to blame others. Recognizing where unconscious bias influences our decisions allows us to find specific ways to move beyond its effects.
- 3. Better Hiring Practices. We have found that focusing on a candidate's fit with our networked organization is more important than focusing purely on experience, skills, or education. When we do this well, the result is

not only more diversity at the recruitment stage, but we add people to our team who bring new skills and unique



perspectives that help to ensure our organization is reflective of the broader community. Interview teams establish the desired attributes prior to evaluating candidates, questions are prepared that focus on our networked organization (e.g., describe the work environment or culture in which you are most productive and happy), and, whenever possible, the interviews are led by a gender diverse panel.

- 4. Modelling Desired Behaviours. Leaders especially men - need to model healthy workplace behaviours. Oftentimes, individual performance and impact is evaluated on observations of effort (how late they work) and commitment (how much they prioritize work above family or health). The reality is that when influential leaders send emails at 1 a.m. and boast about working long hours, it creates unrealistic expectations that can be discouraging for women and men alike. Research suggests that you can have excellent policies, training, and vision statements in place, but it's the role modelling of leaders that has the greatest impact on the norms of the organization and how people behave as a result.
- 5. Paternity Leave Top-Up Benefits. For many years, Urban Systems has provided maternity/paternity leave top-up benefits to new mothers and fathers. When fathers take paternity leave, both women and men benefit. Not only does it help to balance the responsibility of caring for children but, in taking a leave themselves, more men will have a better understanding of the challenges that come with an absence from the workplace and will be better positioned to support their colleagues.

Additional information on the subject have been developed by Westcoast Women in Engineering, Science and Technology: www.sfu.ca/wwest/resources/industryresources.html. And, if you're interested in learning more about unconscious biases, visit www.implicit.harvard.edu.

### **STEPHANIE MCNEELY, P.Eng.**

### Senior Community Transportation Planning Engineer, City of Vancouver

#### Change can take generations

We're getting closer to closing the gap between women and men in the workplace. It's striking to think that women's suffrage in Canada was a decades long struggle and resulted in Canadian women's right to vote in 1916. (It took longer in some provinces and wasn't until 1960 for indigenous women and men.) That's only a few generations ago and change takes time. As a society, we've not yet come to grips with women holding equal or better employment status as compared to men, although moreso within certain age groups than others (welcome millennials!).

### We're making progress slowly

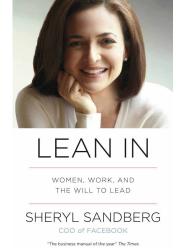
I have been working in the field of transportation engineering for 20 years. On the surface, the workplace is better for women now than when I started – more balanced in terms of overall number of women, more women in leadership roles, and more flexible in terms of balancing family responsibilities. The topic of gender diversity is one that is gaining more prominence in the press and within small conversation circles however, in my experience, achieving gender equality remains elusive.

I read Sheryl Sandberg's *Lean In* while home with my first child and immediately recognized my reaction to "lean back" when I began to think about starting a family. I made decisions based on an event that was still a few years away. I was afraid to be judged as less committed to my job if I took time away to have kids. Fast forward a few years and I have two kids and a better handle on work life balance. I'm also more efficient, a better multi-tasker, and just as committed to a job I really enjoy. So why was I concerned in the first place? I didn't think my colleagues were going to support me in the transition of projects and clients throughout a maternity leave and I didn't feel I had anyone to talk to about my concerns.

In more recent years, I have taken the time to have what I term "awkward conversations." They have come at brave junctures when I feel I have nothing to lose - and I recognize many women don't have the luxury of other options.

Pay equity is one example. We have only to look at the current wage gap to see the evidence: "top women executives at S&P 500 companies continue to be paid less, on average, compared to their male peers." How do other organizations

measure up? How open are they to having difficult conversations with women staff about this and checking the numbers to identify whether there is a gap? Should a woman be made to feel unappreciative or troublesome for asking these questions? After all, they have a job to begin with; isn't that enough?



### We need to seize all opportunities

Everyone has a role to play in achieving gender equality whether it's pointing out inappropriate language or behaviour, having the courage to take on new challenges, or providing women with opportunities, advocates, and resources to learn, develop, and lead. We need to recognize that without thoughtful intervention, our male-dominated system perpetuates the same behaviours, slowing the pace of change. Last year, the World Economic Forum made a prediction that the gender gap would close within 118 years. This year, the outlook has stretched even further, predicting that equality between the sexes could take 170 years. Clearly, gender equality will not come about on its own - we need strong policy direction and buy-in from the public and private sectors to quicken the pace.

My husband stayed home to care for our two children for a few months, which facilitated my second return to work. He experienced the challenges of taking parental leave within a professional organization more keenly than I could ever have described to him. He is now a greater ambassador for women and men who balance the challenges of work and family and truly gets it when it comes to re-engaging in the workforce. Until we reach a point where taking time away isn't a career-limiting move, we still have work to do.

Sometimes I look at my two little boys and wonder about my desire for a gender-balanced workplace where they won't have the privileged advantages their father and grandfathers enjoyed. My hope is that they would have the ability to stay home with their kids if they chose without any of the current stigma. This cements my resolve to keep the conversations that will lead to equality in the workforce going, however difficult or awkward.



### towards equality

The pipeline is full of women working in the field of transportation planning and engineering. Certain statistics would say we've reached equality, but that would not be the full story. We all have a role to play in making sure women make it all the way to the top of the ladder which, for now, is an elusive rung in all but the most enlightened workplaces. Being aware of the barriers and using the tools available will help accelerate the shift toward workplace equality.

### JEN MALZER, P.Eng., M.Sc.

### The City of Calgary and President, CITE

Last year, I read *Lean In* by Sheryl Sandberg as part of my research for this article. Surprising to me now is that I had basically no formal knowledge about women in the workplace. Lean In is a great resource and the majority of the

pages in my copy are now dog-eared because there are so many notable nuggets. There is no doubt that some of the ways I'm treated and some of the ways I react are common to today's social norms. Inspired by the courage of Sheryl Sandberg, I'll compare my experience with the social biases she describes in her book. "Writing this book is not just me encouraging others to lean in. This is me leaning in. Writing this book is what I would do if I weren't afraid."

While feeling fear may not resonate at first, there is in fact good reason for women to feel this way. According to research shown in her book, men

"Fear is at the root of so many of the barriers that women face. Fear of not being liked. Fear of making the wrong choice. Fear of drawing negative attention. Fear of overreaching. Fear of being judged. Fear of failure. And the holy trinity of fear: the fear of being a bad mother/wife/daughter."

-Sheryl Sandberg, Lean In

are more liked as they earn success while women are less liked, sadly, by individuals of both genders. Other unproductive biases manifest in meetings, hiring, and in how we coach women. The good news is that, by becoming more aware, we can all start to make corrections.

Sandberg's principal advice is for women to lean in or, simply, for women to pursue their own paths and potential. One trend Sandberg warns against is women leaning back even in anticipation of having a family - gradually making the sacrifices believed will be needed to strike their perception of balance. Women, partners, and workplaces should be reminded that women are more likely to stay as well as return to work following maternity leaves if they have opportunities that both challenge and excite them.

I am surprised when I speak with women in our student chapters. Our own leaders and scholarship winners are shocked that I can be a mom with a young son and serve at the District level. They are already considering when and in what ways they will need to hold back. In fact, serving at the District level has been great. Not all women, particularly those taking maternity leaves, are guaranteed meaningful professional development opportunities. I loved maintaining something technical for my brain for the year I was on maternity leave. Truthfully, the idea of maternity leave seemed isolating (if not terrifying) and I think my roles with CITE have helped me bring more to my family.

### **EQUIPPING OURSELVES WITH THE RIGHT TOOLS**

- Pay attention to invisible biases that impact recruitment and promotion of women (e.g., job descriptions, clear policy on setting salary, recognizing talent from within).
- Women are generally better advocates and negotiators for other women than they are for themselves. Provide negotiation training tailored to women to help, particularly in advance of salary review opportunities.
- Consider ways to neutralize the impact of maternity/ paternity leave by not just guaranteeing the position but the content of the position and the opportunities it affords.





### feature

So how did I become president of CITE? As is most common, a women – Jeannette Montufar – encouraged me to run. That said, I know I'm an unlikely candidate. Despite years of ITE service and diverse transportation experience, I'm soft spoken and have an unusual leadership style. CITE today is very energized. We have fairly opened volunteer opportunities to members across Canada and yet I'm aware I'm likely not looked at as a leader.

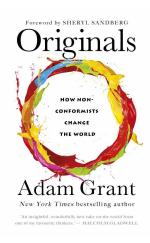
Ultimately what matters is whether CITE is well served by a woman president. And are we? Will our next president, Edward, receive more invitations from our partners to collaborate or speak, thus bringing our organization more opportunities? Or does my style lend to more volunteers feeling comfortable stepping forward to contribute, enhancing engagement within our organisation? Does it matter? It must, but I'm not sure how.

Logistically, I've made serving on a national board work for me and my family. Moms (nearly) necessarily have to travel with their newborns. While I've gotten mixed reactions about travelling with my son to meetings from some colleagues, I have only felt respect from my fellow Board and Executive members. They know that my family babysitters kept Scott nearby while I participated in all aspects of our business. I think it's important to mention for future executives just how welcome I felt to have Scott at times in the room with us, even sleeping in Julia's and Edward's arms the very first time I met them. Of course, now that Scott is older I don't have to travel with him like I did in that first year, but I often still do when there are aunts and grandpas who are itching for a cuddle.

Since the District Executive commitment is for eight years, we absolutely have to balance family commitments. I'm proud that we are - and not just for babies. All of our Executive members have family members and we do our best to work around sports, travels, and milestones.

Sandberg gives advice on the many ways to help women have a real voice in the workplace, whether or not they aspire to advance into leadership roles. Colleagues and certainly managers have a responsibility to gently or overtly step in in situations where women's comments may be cut off or glossed over in meetings. Women's ideas are often attributed to others. Further, women, in Sandberg's experience, don't raise their hand for long - either to ask questions or to pursue opportunities - so listen carefully and encourage. Recognize that the "authentic" leadership style as she describes it (as compared to "traditional") can be very effective and that hiring decisions reflect merit.

Finally, Lean In tells us that women more often than men are driven to careers they believe benefit society. If you, like me, are motivated by change and happen to suffer the blessing / curse of being an early adopter (for me: cycle commuting in 1996 or studying public transit and land use planning within your master's of engineering degree in the early 2000s) or if you are a manager of someone like me, it will be helpful and likely comforting to learn about change management and the biases that tag along.



Another excellent book, *Originals* by Adam Grant, describes the kind of people who successfully make change and those who, often motivated overly by affirmation and being liked, will typically not. His research breaks down many of the stereotypes of entrepreneurs, including those that are unique to women who are seen as less loyal and trustworthy when they offer suggestions. Counterintuitively, his examples show that successfully making change does not involve risky moves but by deliberate work and by having your idea heard - and heard by the right people. As for voice and being heard, there are really four categories of participation available to employees in any industry:

- · having a voice,
- persisting,
- · exiting, or
- · staying but neglecting duties.

The fact that so many women leave engineering indicates a real need to review women's voice. Trust me, there is no sadder day than when a colleague lets you know they are leaving transportation because they don't sense any opportunities to collaborate. Fortunately, there are a lot of tools available to adjust our unconscious biases. As for me, I make as much time as I can to encourage, introduce, and help advance all of the bright women I meet. I hope you do the same.



### towards equality

#### MARSHA ANDERSON BOMAR

### Past President, ITE International and Chair, Women of ITE Task Force

#### Make Your Words Work For You

When you walk into a staff meeting, do you pay attention to the dynamics? Have you taken note of which comments, ideas, and suggestions take hold and which are dismissed? The words we choose and the voice with which we present them have a big influence on that outcome.

Connie Glaser wrote a very helpful book called Gender Talk Works, which tells the tale of a handful of words that we as women often include in our vocabulary only to find that they undermine our message. Her books are based on decades of research and I want to share a couple of examples and let you explore where you find yourself in this conversation. (For more see www.connieglaser.com or her LinkedIn profile.)

Your team is trying to solve a difficult problem and they have been stuck for a while on a single approach. You get an idea of a new way to look at it that you believe can lead to a breakthrough. Think for a moment how you would introduce that to the team. Do you confidently step in and say, "I have an idea that I would like us to examine together?" Or do you say, "I am not sure if this is a good idea but I thought I would toss it out there." Too often, the latter is the approach we take. How many of us are trained to always be humble and then let that get in our way?

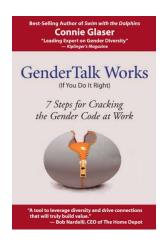
It is not about womanspeak, it is about peoplespeak. It is about inclusion and strengthening both the way we speak and the way we are heard. It is about collaboration on a more equal footing for all.

When you offer an idea, do you find that it is glossed over? Sometimes it is just minutes later that someone else (often a man) presents the same idea and suddenly it is a great idea that everyone supports. How did you present that idea?

> ITE must appeal at all levels to all kinds of people.

To be a healthy, relevant organization, among other dimensions, we must be age, gender, ethnicity, and discipline diverse.

What words did you include and did some of those words undermine you? The "but" word can snag you: I want to share an idea BUT it is not fully formulated. I have a way to solve that problem BUT I am not sure if you will like it. Why would you include the BUT statement?



When was the last time you interrupted someone at a meeting? When was the last time you were interrupted? The perception of "meeting manners" is often different and women often allow themselves to be interrupted. Yes, we own that. We don't take back the conversation when someone else jumps in and so our contribution is often lost. Conversely, we rarely interrupt, but that can also isolate us as a fast-moving conversation does not always have those long pauses to allow one to gracefully enter.

We need to appropriately claim our space and use our words to show strength and own our ability to contribute.

#### **WOMEN IN ITE TASK FORCE**

A new Women in ITE Task Force has come out of a longstanding desire on Marsha's part to provide support to ITE's members in a strategic way. Even though we have made a lot of progress in many of the industries that are part of the transportation community, there are still some issues that are unique or highly skewed based on gender. This initiative is intended to be about education for both men and women, solutions, and support.

The Task Force will start with answering the question: Why? Why would such a group exist and what would it do for the women who choose to be part of the group? During this year, the Task Force will reach out to many members for input once the core group defines a good starting point.

Those who are interested should email Marsha at marsha@ gwinnettvillage.com and as more members are incorporated into the process, they will be contacted.



### feature



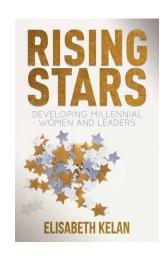
### REBECCA PETERNIAK, M.Sc. (CE), EIT

### Transport Infrastructure Specialist, Fireseeds North Infrastructure

I belong to the millennial generation. Known for being confident, authentic, innovative, impact-driven, and lovers of all things leisure, employers often struggle to understand, engage, and retain us in our work. Millennial women have abandoned the men-as-breadwinner model and believe in individualization. They know their leadership potential and have the desire to pursue leadership positions; however, they face various challenges not apparent to their male counterparts in achieving these aspirations.

Rising Stars by Elisabeth Kelan, PhD, defines best practices for developing the next generation of women leaders. Although focused on those working in business, I found Kelan's work relatable and applicable to my experiences in transportation engineering and planning. Kelan defines six dimensions of leadership development ranked particularly important by the millennial generation. (See table below.) She defines common challenges faced by millennial women and signature practices employers can adopt to help in their leadership development.

Reflecting on Kelan's work through the lens of my own career, I found the most beneficial leadership development practice that employers have used has been to encourage and support my service on technical societies. Through involvement with technical societies, such as CITE, I have met and worked closely with countless women role models; led technical sessions and projects; received formal



training and other professional development; and developed a vast network through conferences and committee work. As a member of the new Women in ITE Task Force, I hope to further explore the role that CITE has in developing future leaders in Canada's transportation industry.

Dimension of Leadership Development	Challenges Faced by Professional Millennial Women	
Role Models	Lack of women role models in upper management positions	
Authenticity	Need to exhibit traditional leadership styles (commonly perceived as masculine) to advance, which does not feel authentic	
Experimental Learning	Less likely to receive critical feedback from men superiors, which negatively influences growth ability	
Formal Education	Lack of gender diversity in university engineering programs	
Visibility	A challenge and benefit, women have inherent visibility in masculing professions, which can lead to over exposure of both their failures and success	
Organization Culture	Unconscious gender bias influences multiple aspects of workplace culture	



### towards equality

### PARADIGM FOR PARITY (P4P)

Frustrated by the incremental gains, a group of female business leaders got together in June 2015 to see if they could find a way to speed up women's progress. The result of brainstorming with a larger group of male and female CEOs, executives, board chairpersons, and academics is a newly launched coalition called Paradigm for Parity (P4P). Their call to action is to achieve full gender parity in all businesses across all levels of corporate leadership by 2030, with a near-term goal of women holding at least 30% of senior roles. To meet the metric, the coalition came up with a five-point

### **The Five-Point Road Map For Parity**

- 1. Eliminating or minimizing unconscious bias in the workplace
- 2. Significantly increasing the number of women in senior operating roles, with the near-term goal of at least 30% representation in all leadership
- 3. Measuring targets and maintaining accountability by providing regular progress reports
- 4. Basing career progress on business results and performance, rather than physical presence in the office
- 5. Providing sponsors, not just mentors, to women well positioned for long-term success

Excerpt reprinted from Fast Company. Original article by Lydia Dishman, 9 December 2016, https://www.fastcompany.com/3066402/the-future-ofwork/how-a-group-of-ceos-plans-to-solve-gender-inequality-at-their-companies.

### **CONCLUSIONS FROM TRAVIS HNIDAN**

### PhD Student, Science & Technology Studies, York University

Gender has been established as one of the major frames for understanding engineering culture. Downey and Lucena outlined "Engineering Studies" as a field of research in their chapter for the original 1995 Handbook of Science and Technology Studies (Eds. Jasanoff, Markle, Peterson, & Pinch), and they surveyed the extensive literature of gender issues in engineering at the time. Over 20 years later, women are still articulating the many ways in which engineering environments marginalize, ignore, silence, exclude, minimize, threaten, and discourage them and their contributions. By sharing their personal experiences with gender, this edition's authors have connected women's struggles in the transportation engineering world to broader labour issues. To encourage gender diversity, workplaces need to provide parental and childcare support through initiatives like topped-up parental leave (available to all parents) and flexible work hour arrangements. To address the issues discussed by the authors, it is critical to enable traditionally gendered roles to be shared at home and the workplace, and to provide opportunities for women to invest in connections through technical and non-technical organizations. Employers and employees need to be aware of implicit biases they have about women, and actively and intentionally work to mitigate these biases. The inroads made by this edition's authors provoke further questions.

First, how does diversity in the workplace translate into design? Star asserts that infrastructures are "by definition invisible" and that they "become visible on breakdown" (380, "The Ethnography of Infrastructure", 1999). What infrastructure breakdowns are not yet visible due to a homogenous group of experts who identify them? Winner ("Do Artifacts Have Politics?", 1980) explains how technical objects possess political qualities that enable certain modes of behaviour. Given the current gendered makeup of transportation engineering, one wonders what impacts this has on the design of the built environment and the communities that use it. Jacobs explored the vibrancy produced somewhat unintentionally by urban planners in The Death and Life of Great American Cities (1961). Her perspective on city building was trailblazing, and it's disheartening to consider which views are missing from addressing contemporary transportation challenges because engineering remains such a masculine field. To better serve their communities, which are, approximately, 50% women, engineers must work harder to ensure that their workplaces are sustainable for women.

Second, what are the challenges facing transgender and gender-non-binary folks in transportation engineering? The roadblocks women face in engineering are very real, but in having these conversations it is important to remember that there are more than just two genders. Yielding space to hear from a variety of gendered identities can provide a roadmap to build a diverse, responsive, and resilient workforce that manages systemic issues faced by all genders.



### member highlight

## UCE BELMORE P.ENG., PTOE, AVS



#### Current employment

WSP, Western Canada Transportation Planning Manager

University of Saskatchewan B.Sc.E. (Civil), Transportation Engineering York University – Schulich School of Business, Organizational Leadership

### First job in transportation engineering

Cummings Cockburn Ltd., Ottawa, ON

### Current city of residence

Regina, SK

#### **Family**

I am married to Norma Jean and we have two daughters, Jade (14) and Sara (12). I also have a wonderful older daughter, Alexandra, who is in university.

#### Personal hobbies

I play rec hockey, love snowboarding, getting out on the boat with the family, and anything involving the outdoors. I also spend much time watching my daughters play sports, including ringette and basketball, throughout western Canada and the northern US.

#### How long have you been involved with ITE?

I have been an ITE member for over 25 years. I have met many amazing people across Canada and the US and it has been a life-enriching experience.

#### What positions have you taken on as a member of ITE?

- · Saskatchewan Section, President
- · Canadian District Executive, various roles
- International Board of Direction, Canadian Director
- 2017 ITE International VP candidate

#### CITE INVOLVEMENT

#### When did you first attend a CITE event?

My involvement with ITE started in a very similar way as a lot of our members. I was working in Ottawa at the time and I was brought along to a monthly luncheon. I guickly realized how welcoming the group was and that I had found a great organization. The people had similar work interests. I got the opportunity to interact with others in the industry. I would encourage everyone to do the same thing this year. Take the new person in your office and bring them to the next section meeting.

#### What is your CITE involvement (past and present)?

I have held several positions including President of the Saskatchewan Section. Participating in your section is very rewarding and I would encourage anyone who wants to become more involved in the transportation industry to volunteer their time on their local section exec.

I have also been through the various positions on the Canadian District between in 2004 and 2011, including

CITE President. This was extremely rewarding. You have to be up for a challenge but you get to meet amazing people across Canada and the effort is certainly worth it.

My last role was a 3 year term (2013-2015) on the International Board of Direction representing the Canadian District. In this position, I spent a lot of time in the US and gained valuable experience understanding the transformational change occurring within the Institute. I have also gained an appreciation for new initiatives being spearheaded that will drive our organization forward. As part of the role, I am most proud of my involvement on the LeadershipITE committee, which helped administer ITE's leadership training program. There have been three graduating classes from this program and many of those who have gone through it are now in high profile positions in the transportation industry.

Currently, I am proud to be a 2017 ITE International VP candidate. The vote is in June and the results will be announced at the joint International/Canadian District Conference in Toronto in early August.



### member highlight

### What do you value most about your CITE membership?

It's experiential. You meet people who you will know for a lifetime. I have relied on fellow ITE members and they have done the same with me. ITE is a place where you can get good technical information but also lifelong friendships and learning opportunities. When you come to the end of your career, you will realize that you may have done great technical work, but it is the people you remember most. Where else can you find a family like ITE?

#### PROFESSIONAL EXPERIENCE/ACHIEVEMENTS

### How would you describe your job to someone you just met at a party?

Entirely enjoyable. Transportation planners get to impact the world around us in a positive way and use judgement in areas that require skill and dedication, and there is an effect on people's lives.

I was involved in a court case where a young child was struck crossing a busy road at a crosswalk near a school. I was engaged as an expert witness to look at whether the municipality's signage was appropriate for the situation. It was extremely difficult because my daughter was the same age as the child involved in the accident. It makes you love your family more and realize the importance of your role and contribution to society.

### What is one aspect of your work that you particularly enjoy?

My top areas of interest are roadway safety, parking, interchange design, and value engineering. I know, that is a broad list. That is what attracted me to transportation planning in the first place - the breadth of the work you can be involved with throughout your career.

### What are one or two projects that you're most proud to have worked on?

I had been involved in establishing a corridor plan for a series of interchanges on Highway 1 just east of Regina to solve a large commuter safety issue. The solution was the first step in what is now the \$1.8B Regina bypass. I had the pleasure of developing and justifying the initial alignment that ultimately became the reference concept for the P3.

The second project is the Regina Football Stadium traffic and parking management plan. We are looking at methods to change travel behaviour and have already been able to increase transit ridership from 14% to 26% during the new stadium's first test event. Next test event is the Guns 'n Roses concert this summer. I have some thinking to do

about how we can affect transit ridership for attendance at a rock concert.

### During your career to date, have you pursued any professional designations through ITE (such as PTOE)?

I have my PTOE and it provides some good foundational traffic operations training. Some municipalities locally require it for traffic work. We were recently involved in a job where the architect asked for it as a way to separate our team from others. It is interesting that this architect saw the value in the designation.

### Please describe what attracted you to transportation engineering?

There were two professors at my university, Gordon Sparks and Art Bergan, who really got me interested in the field of transportation. They were both involved in some interesting transportation projects, some international projects, and both owned their own companies beyond being professors. It looked like such a broad industry that appealed to me and a place where I could have an impact.

### If asked to speak to a class of engineering students, how would you recommend it as a profession?

If you like working with others and collaborating on solution development, it is a great career. If you like a career where no two days are the same, this is the career for you!

### Projecting yourself into the future, from an end-of-career perspective, what will you hope to have accomplished?

I feel the highest purpose you can achieve in your career is being a mentor and passing your knowledge to others. Projects will come and go. Seeing someone else become passionate and engaged in the industry is fundamental to the success of our industry. I hope that I will be able to affect one or two people along the way, as others have done for me.

### What is the single greatest satisfaction you take from your job as an engineer?

Helping develop transportation solutions. All of us take pride in what we do, whether it is developing a unique intersection design, resolving a safety issue around a school site, or providing a good signal timing plan to resolve congestion. I take pride in finding solutions when there wasn't an easy option available and working with the public in defining that solution. I suspect that is no different than for other members however. Our members tend to be problem-solvers.

*Continued on page 26...* 



### member highlight : bruce belmore

### What is the first thing people most commonly ask or say when they find out you are a transportation professional?

You know the intersection at x and y streets? Why does it operate that way? Or... can you fix the signal timing at this intersection?

#### **GETTING TO KNOW YOU**

### If you did not pursue engineering as a career choice, did you have another career in mind?

I had seriously thought about being an architect in order to satisfy my creative side. In the end, engineering was the right decision as I still am able to affect the world in a positive and creative way.

### What is the most daring thing you've done?

Starting my own transportation engineering company eight years into my career. I grew it and employed other staff at a time when I was getting married, buying a house, getting office space, and still learning. It is a good thing you have no idea how much work it is to start a company! You end up having to learn about accounting, human resources, marketing and, of course, need to do the technical stuff too. It is a sense of pride working for yourself and making key decisions. Don't kid yourself though, there is a lot of hard work and I have great respect for those who are out there as independents. Treat small business owners well as they will work hard for you and can bring ingenuity and work ethic to the table.

#### What is the last book that you read or are currently reading?

I love reading and am rereading an oldie but goodie called *Getting to Yes* which is a great book about negotiating, as well as *Brilliant Email* as I am trying to get a handle on my growing email inbox.

For pleasure, I just finished *The Couple Next Door* by Shari Lapena, a lawyer and English teacher from Toronto. Intense, crazy, fast paced and wonderful characters who all seem to have secrets. A great debut in the genre.

#### **INTERESTS & PERSPECTIVES**

#### Who has had the greatest influence on your life and career?

My mom. She escaped the war in Europe as a 15 year old, left her family behind, moved to Canada without knowing any English, found employment, and ended up getting married and raising five children. I admire her perseverance and drive. All of her kids have an instilled work ethic that is a direct reflection of how she has lived her life. She has a story that is typical of the many hard-working immigrants to this country.

### If you could change one thing about the practice of transportation engineering, what would it be?

I see unlimited opportunity for young grads to get into many exciting areas. Our largest impediment is access to transportation programs in this country. In many ways, the same issue affects the US. We need more professors to lead university transportation programs and more transportation graduates in order to meet the growing and diverse demands of our industry.

#### What is the greatest opportunity you see for the field?

There are many opportunities because the field is so broad. If I were just getting out of school I would probably focus on road safety, autonomous vehicles or active modes. Our members can contribute to the conversation and be leaders in these areas.

### Where do you see ITE going as an organization?

The organization is moving quickly with lots of changes being noticeable on the operation of the various ITE councils, leadership, and overall direction. Here are a few of the initiative areas ITE is looking at right now:

- 1. **VisionZero**–looking at things like system improvements and vehicle technology to make driving safer
- **2. Smart Communities** integrated streets with equipment that communicates with your smart phone to find available parking, optimizing traffic flow, and improved traffic data collection
- 3. Trip Generation the manual is being updated right now and will include person-trip info as well as urban information. Publishing the manual in software form is also in the works
- **4. Transportation and Public Health** starting a task force to investigate linking transportation to public health. This includes looking at things like better community design to encourage walking and cycling rather than the traditional "gated-community" design which has high reliance on the auto

Keep an eye out for more from Bruce in the Spring edition of *Transportation Talk*, where we'll meet both 2017 ITE International VP candidates!



### technical liason committee update



### **TLC Activities at a Glance**

Happy New Year to the CITE membership. 2016 was a busy year for the District and I anticipate the good work will continue through this new year.

By the time of publishing for this Transportation Talk newsletter, I anticipate the TLC will have made the selections for new TLC membership. We received seven submissions with all of them sharing qualities that would be assets for work on our Committee. Thank you to all for your expressions of interest and willingness to volunteer your time for CITE.

In 2016, the TLC chose two new TAC projects for contributory funding, namely the Update of the MUTCD project and the TAC Safety Impacts of Bicycle Infrastructure in Canada. The MUTCD update project is currently under way and the Safety Impacts project is currently in development and seeking more funding partners.

Ongoing TLC projects carrying over from 2016 include the following:

- CITE / TAC Traffic Calming Guide update an equal partnership between both associations
- Canadian Trip Generation project now linked into the activities occurring at the International level
- Accessibility Guidelines a membership survey is now open until February 24. You are invited to help develop uniform accessibility guidelines across Canada through participation in this survey!
- Turn Lane Warrants information report is currently under development

The TLC has also been working on the results from the 2016 new projects survey. A new follow-up survey will be distributed to the membership which drills into aspects of the top four categories for member support and input:

- Autonomous/Connected Vehicles and Safety & Vulnerable Users
- Active Modes
- Multi Modal Level of Service
- Complete Streets

And finally, I want to give a shout out for the hard work of the Intersection Capacity Methodologies working group, along with the positive CITE member feedback from last fall's survey, for taking a big step toward the incorporation of CCG methods into PTV's Vistro software. CCG implementation into Vistro over the next year will be one of the focuses for the working group.

All my best to you and yours for 2017. Stay tuned for future communications from the TLC.

**DWAYNE CROSS** 

Chair, Technical Liaison Committee

### Transportation for All | Putting New Ideas Into Practice







Annual Meeting and Exhibit
July 30 - August 2

### PLENTIFUL PROFESSIONAL DEVELOPMENT OPPORTUNITIES AWAIT THIS SUMMER IN TORONTO

Program planning for the Joint ITE/CITE 2017 Annual Meeting and Exhibit, July 30-August 2, is underway! The Call for Abstracts yielded approximately 350 submissions (60% from the U.S., 30% from Canada, and 10% were international). This reflects a strong level of interest in this conference throughout the entire transportation community.

The high quality of the abstracts was also very impressive, ensuring that the conference will offer strong professional development and training opportunities. It also meant that the review committee needed to make some very tough decisions. Russell Brownlee, Jim Gough, and Joanna Kervin from the Local Arrangements Committee along with representatives of ITE Councils and ITE staff have spent a good deal of time reviewing the submissions and providing their input.

As the technical program continues to develop around the theme **Transportation for All: Putting New Ideas into Practice**, it is anticipated that there will be several sessions featuring topics related to Vision Zero and safety, transit, autonomous and connected vehicles, transportation and public health, management and operations, signs and signals, and smart communities. Concurrent to the development of the technical program, plans for technical tours, the street hockey game, and other activities including TransportationCamp, the Canadian District Student Mixer, and the Canadian and International Collegiate Traffic Bowls are ongoing. We are also assembling an impressive slate of keynote and plenary speakers, who will set the underlying tones and summarize the core messages of the conference.

We look forward to hosting you at the Sheraton Centre Toronto Hotel this summer! We also encourage you to consider sponsoring or exhibiting at the meeting. Great opportunities are still available. Visit ite.org/annualmeeting for more information.

**JEFFREY F. PANIATI, P.E. (F)** 

Executive Director and Chief Executive Officer, ITE

**GENE CHARTIER, M.A.Sc., P.Eng. (F)** Chair, Local Arrangements Commitee

Eugen Flhautie

More details for this conference, including an agenda, are available on the conference website:

ite.org/annualmeeting

Check back periodically for updates.



#### **GREATER VANCOUVER SECTION**

The Greater Vancouver Section has held a number of events throughout the end of 2016, including a section meeting and our Annual General Meeting.

On November 8th, the Greater Vancouver Section hosted a breakfast meeting which included a presentation from Jen Malzer from the City of Calgary. Jen's presentation highlighted the first pedestrian strategy which was approved in 2016 for Calgary. It included 49 actions to help make Calgary safer, more comfortable, and more interesting for walking. The strategy, called StepForward, was built on the concerns and opportunities for improvement, shared through public engagement by thousands of Calgarians. Her presentation provided an overview of key initiatives including a street lab party that featured community built temporary pedestrian, biking (hay bale cycle tracks!) and place-making to launch Calgary into its tactical urbanism program.

On December 7th the Section held its Annual General Meeting. At the AGM, the annual Section Awards were presented to the following recipients:

- Bill Curtis Award: Main St SkyTrain Station Upgrade (TransLink, VIA Architecture and Graham Construction)
- Mavis Johnson Award: Variable Speed Limit System (MOTI, PBX and IBI Group)
- Lifetime Achievement: Julian Rozental
- Outstanding Professional: Patrick Livolsi, MOTI
- Young Professional: Jared Duivestein, Parsons

Please join us in congratulating these individuals and project teams on their outstanding contributions to the local transportation engineering industry and communities.

Looking forward to 2017, we were pleased to welcome Niraj Sunuwar as our new Treasurer. The returning members of the executive include Brendan Stevenson as President, Linda Qian Lin as Vice-President, Jared Duivestein as Secretary and Sam Young and Jonathan Ho as Webmaster. We would like to thank Billy Dong for his hard work as president in 2016.

The UBC Student Industry Night will be held in February, which is an opportunity for students and industry

professionals to interact and showcase student projects. We anticipate a strong turnout and look forward to a busy year ahead!

> **Top:** GVITE Past President Billy Dong with CITE President Jen Malzer of The City of Calgary

**Bottom**: TransLink, VIA Architecture and Graham Construction accept the Bill **Curtis Award** 





#### **BC INTERIOR CHAPTER**

The BC Interior Chapter co-hosted their annual joint technical conference with the Planning Institute of British Columbia on November 10<sup>th</sup>, 2016 at the Tournament Capital Centre in Kamloops, BC. Five sessions were provided that covered a range of engineering and planning issues all related the central theme of creating Healthy Communities. The conference began with an

opening keynote by Todd Litman that was followed by presentations from Keith Culver, Ahmed Idris, Ellen Morrison, Anna Zhuo, and Ana Coady. Tanya Osbourne, Pam Moore, and Dr. Sue Pollock from Interior Health facilitated an engaging session on Integrating Health into All Policies and Actions that provided much food for thought!



Our Annual General Meeting was also held during the conference and most of our executive remain the same with a few changes in roles from the previous year. Ian Roth was elected to President with Amanda Watson moving to Past President. Tom Baumgartner was elected to Vice President, Ellen Morrison to Secretary, and Mahesh Tripathi to Treasurer. We also have the following members

at large: Brad Colvey, Brian Oliveira, Gord Lovegrove, Meagan Beaulieu, Peter Truch, Sam King, and Stephen Sargeant. The University of British Columbia Okanagan Student Chapter appointed Esraa Jamal as the Chapter Liaison. A chapter survey was issued following the conference and the results will be presented in our Annual Report.

**Left**: BC Interior Chapter Executive includes (L-R): Karen Reiman, Stephen Sargeant, Ellen Morrison, Ian Roth, Amanda Watson, Tom Baumgartner, Peter Truch, Gord Lovegrove, Meagan Beaulieu

*Right:* Interior Health Facilitated an engaging workshop on Health Policy and Action



#### **SOUTHERN ALBERTA SECTION**

The Southern Alberta Section (ITE SA) had a busy 2016. Regularly scheduled luncheon presentations highlighted innovative design, data, emerging technologies and planning. Topics included Calgary's first Diverging Diamond interchange, the Calgary Cycle Track Pilot Project, Greenline LRT planning, autonomous vehicles, traffic modeling and developer funded area structure plans. The year was topped off with a bagged lunch site tour of the Flanders Avenue interchange in Calgary and a

round table discussion of topics of interest brought forward by our membership.

It is with sadness that we announce the recent passing of long time ITE member and supporter, Mr. Calvin T. McClary. P.Eng. He inspired and mentored many young engineers and was a true renaissance civil engineer, having designed and built transportation systems, bridges, water systems, and structures in Western Canada and the United States.





In the year ahead, our newly elected ITE SA executive team will continue to support member needs and coordinate events that build our transportation community through learning, networking and sharing our successes. Round table discussions in December indicate our membership is interested in local projects, emerging technologies, health and transportation, and aesthetic infrastructure. These topics will be highlighted in our activities, presentations, and discussions throughout 2017.

Your newly elected 2017 ITE SA executive team is:

- Cory Wilson Past President
- Irini Akhnoukh President (incumbent)
- Meera Kopp Vice President (incumbent)
- Monique Castonguay Treasurer (incumbent)
- Dale Lynch Secretary (incumbent)
- Zoran Carkic Publicity Coordinator (new)

For more information on these and other ITE SA section events, please email southernalberta@cite7.org.

#### **MANITOBA SECTION**

It is a whole new world for the Manitoba Section lately with our move to the Masonic Temple for our monthly luncheons. We are very grateful to the Roundtable Restaurant who were very accommodating of our group and provided some incredible food for us over the last several years.

Following our September 2016 Golf Tournament, we started back to holding regular lunches throughout the fall. Our October meeting had Keenan Patmore of MORR Transportation Consulting giving an overview of a recently completed TAC project, the National Guidelines for Work Zone Safety. (See photo below.)

Mark Warkentin of MMM Group and Kris Maranchuk of Manitoba Infrastructure made a joint presentation at our November meeting describing an ongoing interchange project happening at the intersection of Winnipeg's Perimeter Highway and Provincial Trunk Highway 59 on the north side of the city. The interchange is expected to open in Fall 2018.

We closed out 2016 with another joint presentation in December by Colleen Sklar, Executive Director of the Partnership of the Manitoba Capital Region and Bob Kurylko of Stantec. Colleen and Bob provided an informative overview of the Development of the Regional Growth Strategy for the Manitoba Capital Region. Also during the December meeting, we held a short annual general meeting where we bade farewell to Jon Regeher as Past President and welcomed a new member to Manitoba's Executive Committee, Nini Nytepchuk. The Manitoba Section would like to thank Jon for his 10 years of service to ITE!

Below: Keenan Patmore presenting at ITE Manitoba's very first monthly luncheon to be held at the Masonic Temple in Winnipeg.





#### **HAMILTON SECTION**

On October 25, 2016, the Hamilton section hosted a technical luncheon with a presentation on the Hamilton Light Rail Transit (LRT) Project. It was presented by Danielle Bury, Senior Project Manager, LRT Planning Section of the City of Hamilton. The presentation focused on how the Hamilton Light Rail Transit (LRT) project will provide a rapid and reliable service from McMaster University to

Queenston. Also, how it will be a catalyst for the development of high quality, safe, sustainable and affordable transportation options for citizens, connecting key destination points, stimulating economic development and revitalizing Hamilton. This presentation

Manoj Dilwaria, Hamilton Section President, with presenter Danielle Bury from the City of Hamilton

looked at the selected alignment and technology, early concept designs, and next steps for implementation.

Also, on December 8, 2016, a luncheon presentation was organized by the section which was presented by Mike Barnet, Associate Partner and Senior Project Manager with CIMA+. The presentation on Connected and Automated Vehicles – Past, Present, and Future provided an overview of connected and automated Vehicles, how they started out, pilots/testing occurring now both within an Ontario and Canadian context, as well as what is happening in other jurisdictions around the world. Finally, the presentation explored the impacts these vehicles are likely to have, the anticipated benefits, potential side effects, lessons that should be considered from other disruptive technologies, and how we should prepare for their arrival.

#### **TORONTO SECTION**

On Friday, December 2<sup>nd</sup>, 2016, the ITE Toronto Section hosted its 28th Annual General Meeting (AGM) and Christmas Luncheon. Many ITE members know this as the signature event of the ITE Toronto Section. The keynote address, entitled "How Did I Get Here?" was presented by Gerry Chaput, P.Eng, Vice President of Rapid Transit at Metrolinx.

The AGM saw the election of two new Executive members. Jason Dahl of IBI Group will take on the role of Communications Coordinator while Mike McConnell of LEA Consulting will serve as the Activities Coordinator. Matthew Davis of the City of Toronto was presented with the 2016 Past President's Award to recognize his efforts over the number of years that he has served on the Executive.

The 2016 Project of the Year was awarded at the AGM. This year's winner was the Regional Municipality of York for their project on Transportation Mobility Plan Guidelines for Development Applications.

Each year our Section honours our Lifetime Members as determined by ITE International. This year's recipients of Lifetime Membership were: Ronald Allen, William Copeland, Glenn Johnson, Robert McBride, Rodney McPhail, and Christopher Middlebro. Each Lifetime Member received a certificate from ITE confirming their Lifetime Membership.

Stay tuned for more events in Toronto as we prepare for the ITE 2017 Annual Meeting.





#### **UNIVERSITY OF BRITISH COLUMBIA**

On November 2<sup>nd</sup> 2016, two representatives from Transoft Solutions came to UBC and delivered a fantastic demonstration of four programs: AutoTURN, TORUS, NEXUS and AviPLAN. In AutoTURN, vehicle tracking was demonstrated in 3D by showing us an example of a vehicle trying to exit a garage with a steep grade and sharp curve. In TORUS, it was amazing to see how easy and quick it was to configure a roundabout. In NEXUS, we were shown how fast it was to design an intersection with the program. In AviPLAN, students were shown how it is used for airport runway design. A big thank you to Transoft Solutions for coming out and giving us a great demo!

On November 24th 2016, UBC ITE had the honour of inviting Mr. Brian Patterson of Urban Systems for a presentation on #Biketoria, an initiative undertaken by the City of Victoria to create a city-wide cycling network

for all ages and abilities. From the presentation, students gained a better understanding of the design of AAA bike facilities, the project planning process, and community engagement. Thank you, Brian, for the informative presentation and an interesting discussion.

On November 25th 2016, seven students attended a tour and presentation of the Vancouver International Airport Baggage System. At the beginning of the event, Gideon Pangetsu, Manager of YVR Airport Terminal Projects, gave a quick presentation with an overview of the luggage system and the various checks in place to make sure that luggage is delivered to the correct area. We were shown all kinds of cool equipment such as security equipment inside the system that detects explosives. A big thank you to Gideon Pangetsu and YVR for hosting this tour and giving us great insight to what happens after we drop our luggage off at the airport.



#### **UNIVERSITY OF MANITOBA**

Since our student elections back in September, the U of M ITE Student Chapter has gotten right back into the swing of things this fall. The last couple of months have hosted a variety of events from technical to social and fundraising and, finally, community involvement.

The fall semester saw six guests visit the University of Manitoba to speak to students in the ITE Student Chapter. In October, Michael Cantor and Ryan Patrick from the City of Winnipeg presented on the city's new transportation management centre (TMC). Next, guest speakers Mark Hearson and Craig Milligan from Fireseeds North Infrastructure visited in November to educate the student chapter on video collection/analysis and surrogate safety measures. Finally, Terry Shaw and Aaron Dolyniuk from Manitoba Trucking Association (MTA) visited the student chapter to discuss the roles of the MTA, the importance of the trucking industry, and current issues faced by the industry. All presentations were incredibly interesting and informative in their own right. Thank you again to all of the speakers who visited us in the last few months; it is greatly appreciated by the students and the chapter!

The student chapter also tried a new idea of hosting a professional photoshoot where student members were able to receive free professional headshots, be it for LinkedIn or other professional purposes. The event was quite a success with several student members taking advantage of the opportunity. We hope to hold similar events in the future!

We also had our first couple of social and fundraising events; in October, the student chapter replaced its annual BBQ with a grilled cheese sale to raise money for the student chapter and its events. The grilled cheese sale was a big hit with the students this year, and we hope to do it again next year! We also held our annual Halloween Bingo Bowling event where student chapter members were able to get to know each other over a few games of bowling. The event saw a variety of awesome costumes, including dragons, Lego people, and more, all of whom had a great time! In November, we hosted an event at Rumor's Comedy Club; this event doubled as both a fundraising event and a social event. The affair was well attended by students and guests, and overall everyone had a great time!

The last couple months also saw the student chapter giving back to the community. In October, several student chapter members headed out to clean up a portion of Winnipeg's Perimeter Highway before the snow flew. The students were able to clean up the entire North side of the 8 km highway segment! In late November, many student chapter members volunteered their time to put on a pancake breakfast, with donations being accepted on behalf of the Christmas Cheer Board. The money raised from this event was used to purchase groceries and toys in order to build Christmas hampers for families in need. With the money raised, the U of M ITE Student Chapter built and delivered six hampers.

Looking back, the U of M ITE Student Chapter had a successful past few months, and are looking forward to the events to come in the new year!

**Top Left:** Auja Ominski, Ryan Patrick, Michael Cantor, Jeannette

**Top Right**: Mark Hearson, Auja Ominski, Craig Milligan, Zixuan Liu Bottom Left: (Back) Steven Wood, Giuseppe Grande, Lucas Stoffel (Middle) Auja Ominski, Karalee Klassen Townsend, Abby Scaletta,



**Bottom Right:** Hamper Building Steven Wood, Auja Ominski, Giuseppe Grande, Abby Scaletta, Karalee Klassen Townsend,



#### **MCMASTER UNIVERSITY**

On November 23rd 2016, the newest student chapter of CITE held its first official meeting. The Board approved establishment of the student chapter in November 2016. The event featured a number of speakers including Danielle Bury from the City of Hamilton on the Light Rail Transit project, John Trickett from Metrolinx on various capital projects, and Edward Soldo from the City of London on the Shift Bus Rapid Transit project. As the District Vice President, Edward also provided the students with an overview of the Canadian Institute of Transportation Engineers.

Members of the McMaster University Student Chapter Executive, CITE's newest student chapter



#### **RYERSON UNIVERSITY**

What we've done so far: After our fall meeting, we welcomed six new members to our executive team. Our committee is now composed of both undergraduate and graduate students completing various degrees in Civil Engineering as well as Urban and Regional Planning. We're hoping our events will draw students from both departments for learning and networking opportunities. Our first event so far, a Synchro software training, was very well attended particularly by upper year students desirous to apply the knowledge to their capstone projects currently in progress.

What's to come: We're planning a second Synchro training session by request for the beginning of the winter term. We're also hoping to initiate information sessions where students can drop in on their lunch break and enjoy light refreshments while learning more about the transportation engineering field. We'd like to end the year off with a networking night to allow students to hear first-hand from those in the field.

#### January / February

- Synchro Training Session Part II
- Info Session for Prospective Graduate Students of Civil Engineering and Urban & **Regional Planning**
- Summer jobs and Internships in Transportation Engineering Info Session

· Networking Night

**Top:** Undergraduate students Hasan Bhura and Ahmed Kabir attended this year's ITE Toronto Christmas Luncheon on behalf of Ryerson

**Bottom**: Sean Nix hosted our well attended Synchro training session this fall





#### **UNIVERSITY OF TORONTO**

#### U of T ITE - Seminar Series

In the fall semester, U of T ITE's weekly seminar series invited professors and industry professions and master students to talk about transportation project/research updates. On October 20th, independent transit consultant Brendon Hemily gave a broad overview of transit pricing and the complex reality of fare policy setting. He also provided perspectives on a range of related issues such as objectives, equity, and regional fare structure. At the end of October, we welcomed Professor Eric Miller to talk about his research on Travel/Activity Scheduler for Household Agents (TASHA). TASHA has been adopted as the operational travel demand forecast model for City of Toronto and City of Mississauga for evaluation of transportation investments and policy. We are excited to learn a more efficient model of decision making for our transportation system. These are just two highlights from the fall semester's seminar series and we look forward to more interesting topics in the upcoming seminars.

#### U of T ITE - Lunch

On November 11, U of T ITE student members had lunch together at Nando's. This was a lunch with delicious food and laughter. While busy with courses and research, breaks from work and support from friends are also important to us.

#### **Scholarship Lunch**

Several members of UT-ITE attended the Civil Engineering Scholarships and Awards reception. Congratulations to all the transportation winners and thank you to all the donors who help make our education possible!

### ITE U of T Chapter Dinner at TRB 2017

More than 40 University of Toronto students, alumni, and professors got together in Washington DC for dinner on January 10th during the Transportation Research Board Annual Meeting. This was an excellent opportunity for our students to network with alumni and professors. The full event was organized by the U of T ITE student chapter.



#### **CARLETON UNIVERSITY**

After kicking off the year by attending the Transportation Association of Canada (TAC) Conference in Toronto, we continued the momentum of building up our student chapter by organizing and participating in a few events throughout the Fall semester.

#### **City of Ottawa Traffic Operations Center Tour**

At the end of October, ten members of the student chapter attended a tour at the City of Ottawa's Traffic Operations Center. The tour of the Traffic Operations Center involved presentations of the various elements required for the operation, maintenance, and control of all the traffic infrastructure within the City of Ottawa. The tour gave us access to the traffic operations control room which is used to continuously monitor traffic conditions in Ottawa using over 1100 signalized intersections and over 200 traffic cameras, the traffic hardware department where traffic cabinets are manufactured and tested in-house, and the signage and the signal department where the majority of the traffic signs and signals in the City of Ottawa are fabricated. In addition, the tour included an explanation of the City of Ottawa's commitment to updating their traffic hardware to be compliant with recent AODA requirements.

#### **Creating Confidence: Resilience of Supply Chains**

Members of the Carleton CITE Student Chapter were invited by Professor Ata Khan to attend a workshop on the academics, government and industry partners to discuss how vulnerabilities in the supply chain are addressed to better serve industries and consumers. During this day and a half workshop, students had the opportunity to network with industry professionals and learn how various organizations adapt their operations to vulnerabilities in the supply chain.

#### **CITE Speaker Series**

The Carleton Student Chapter hosted the first of many Speaker Series events they hope to host this year. At the first speaker event, the student chapter invited four industry professionals from varying backgrounds to talk about opportunities for students in the field of transportation engineering and planning. The topics highlighted at the first event included Career Planning for Young Professionals (Ben Novak), Cycling and Pedestrian Facilities (Kate Whitfield), Transportation Planning (Kornel Mucsi), and Highway Engineering (Keith Dustin).

> **Top**: Carleton's CITE speaker series **Bottom**: Touring Ottawa's Traffic Operations Centre



#### UNIVERSITY OF NEW BRUNSWICK

Our UNB CITE student chapter has had a great start to the year. We kicked off our first "Lunch and Learn" with Ryan Esligar, a former student and CITE student chapter member. Ryan works for Crandall Engineering, the company responsible for developing a traffic re-route during construction on a major arterial road in the City of Fredericton. Ryan commented on how great it was to see how much the chapter has grown since he was a member.

The CITE Atlantic Provinces Fall Meeting was a great setting to invite student chapter members to hear from industry members and current graduate students in the transportation engineering field. We heard from our student chapter president, Caitlin Sowers, who presented her research on driver adaptation to a new two-lane

roundabout using drones. Brendan McPhee, our student chapter vice-president, also presented his research with his supervisor, Trevor Hanson, on train identification and its impact on civilian safety in New Brunswick.

Before the semester ended, the chapter hosted a fun trivia night at the local university pub on campus. We had over 14 teams attend and had a great time relaxing before the stressful exam season started. Prizes were awarded to the winning teams, and we will be sure to make the trivia night a tradition as it was a great success!

We want to thank CITE for their continued support of the chapter, our student chapter advisors, Eric Hildebrand and Trevor Hanson, and our student members. We are excited to see what this year holds for the chapter!



**Top Right**: Trivia night hosted by the UNB student chapter **Bottom Left**: CITE Atlantic

provinces meeting **Bottom Right**: Lunch and Learn

featuring former UNB student chapter member Ryan Esligar





### **CALLING ALL STUDENT CHAPTER MEMBERS!**

How well do you know the CITE professionals in your local area? From now until March 15, 2017, you could win one of three free registrations to the 2017 ITE Annual General Meeting in Toronto by completing a variety of challenges to connect with more local professionals:

- Hosting a local professional to present at a student event;
- A group of six or more students attending a professional section event together;
- Organizing a local technical tour and inviting the local professional chapter;
- Adding your event to the CITE events calendar;
- and more!

For details, check out the **Student Events Sweepstakes** section on the **excite** website: cite7.org/excite

#### **PROFESSIONALS CAN WIN TOO!**

Are you a professional who wants to support your local student chapter? You can also earn an entry to win a free conference registration by presenting at or participating in a student chapter event.

#### JOIN THESE STUDENTS AND PROFESSIONALS WHO HAVE ALREADY ENTERED TO WIN!



**Above:** UBC-Okanagan students Karen Reimann, Laura Herrera R, Esraa Jamal, Abdul Masoud, Eric Ma, and Anna Zhuo at the PIBC/CITE Conference - a BC Interior Chapter Event - in November 2016 in Kamloops



Left: Professionals Aaron
Dolyniuk and Terry Shaw of the
Manitoba Trucking Association
with University of Manitoba
students Auja Ominski and
Zixuan (Eric) Liu

**Below:** UBCO hosted a Complete Streets presentation night with students Abdul Masoud, Karen Reimann, Zarahnaaz Feroz, John Rozema, Eric Mah, Nick Gorman with faculty Gord Lovegrove and Ahmed Idris and professionals Matthew Boyd, Ian Roth, and Alon Weinberger.



### congratulations & welcome

### CITE extends a warm welcome to all new Canadian District ITE members who joined in 2016!

Warren Aguinaldo, E.I.T., City Of Lloydminster, Lloydminster, AB Amir M. Alizadeh, P.Eng., ISL Engineering, Edmonton, AB R. Michael Anderson, P.Eng., MCIP, RPP, City of Vancouver, BC, Canada, Vancouver, BC James Arango-Valencia, City of Calgary, Alberta, Calgary, AB Ali Arshad, ISL Engineering, Edmonton, AB Jeremie Aube, WSP Canada Inc., Moncton, NB Justin Bak, City of Toronto, Toronto, ON Liam Baker, City Of Kamloops, Kamloops, BC Mike Barnet, CIMA, Burlington, ON Joshua M. Bassett, City of Vancouver, BC, Canada, Vancouver, BC Bipul C. Bhowmik, Regional Municipality of Wood Buffalo, Fort McMurray, AB Mathew Bilodeau, City of Niagara Falls, Niagara Falls, ON Jennifer N. Black, City of Calgary, Alberta, Calgary, AB Stephen Blore, City Of New Westminster, New Westminster, BC Pat Braun, City Of Coquitlam, Coquitlam, BC Laura Brown, Calgary, AB Nabila Chatur, Alberta Transportation, Edmonton, AB Jerry Che, P.Eng., City Of Mississauga, Mississauga, ON Tony Chiu, M.A.Sc., P.Eng., WSP -MMM Group, Thornhill, ON Steve Chou, City of Vancouver, BC, Canada, Vancouver, BC Cindy Siao Wen Chung, R.J. Burnside & Associates, Pickering, ON Jeff Cornwell, C.E.T., City Of Hamilton - Traffic Operations and Engineering, Hamilton, ON Nicolas Dahito, S.M. International

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### remembering a legacy

# Grant Bacchus

#### A TRAFFIC ENGINEERING LIFE WELL LIVED

On October 16, 2016, we lost a pioneer in the traffic engineering profession here in Canada with Grant's passing at the age of 87. Grant was born in Toronto in 1929 and graduated from the University of Toronto in 1951 with a degree in Civil Engineering. Grant began his career at the Ontario Department of Highways (now the Ministry of Transportation of Ontario) then joined the Metropolitan Toronto Planning Board in 1956. He left public service to join A.D. Margison & Associates in 1959 where he stayed until opening his own consulting engineering practice in 1975. He successfully ran his firm for over 35 years, finally retiring at the age of 82.

Grant was well respected for his significant involvement with the Institute of Transportation Engineers, holding many Committee positions as well as being Chairman



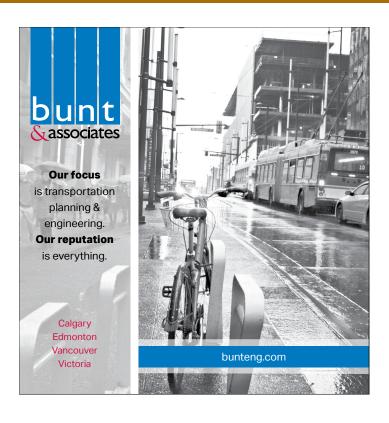
of the Planning Applications Division, where he received the ITE Chairman's Award in 1980 for his work in developing the first Trip Generation Manual which is now in its 9th Edition. He was also a founding member of the Canadian District of ITE and served as its first Secretary-Treasurer and Newsletter Editor, followed by the Vice-President and President positions. In 1998, he received CITE's highest honour, the Robert Burton Distinguished Service Award, celebrating and recognizing his significant contributions and dedication to the field of Traffic Engineering. Grant also held Board appointments at the Canadian National Exhibition and the Toronto Board of Trade, as well as being York Region Councillor for the Professional Engineers of Ontario.

A devoted sports fan, Grant helped coach, manage and sponsor both his sons' minor hockey and baseball teams, and was an ardent Blue Jays and Maple Leafs fan. Sadly, the last 50 years have given him little to cheer about in world of professional hockey here in Toronto! He also loved to play golf and bridge and will be missed by members at Cedarhurst, Royal Oak and Thornhill G&CC. Grant also loved to travel, exploring most of the globe's continents by air, ship, rail and car. Grant's second home was the family cottage, where he spent over 60 summers enjoying family and close friends. His absence will be long felt by all who knew him.

It is said that one true measure of a person's legacy is the impact they leave on their progeny, and in this case the proof is in the fact that Grant's strong mentoring skills truly paid off with his son Jim. As many of you may know, Jim Bacchus is a very successful transportation consultant and leads a team of professionals at The Municipal Infrastructure Group Ltd. (TMIG) in the City of Vaughan. Indeed, the apple did not fall too far from the proverbial tree!

Grant...we'll miss you. But it's nice to know you will be long remembered through your family and many ITE friends who enjoyed your wonderful wit and wisdom at numerous Toronto Section, Canadian District, and ITE International meetings.

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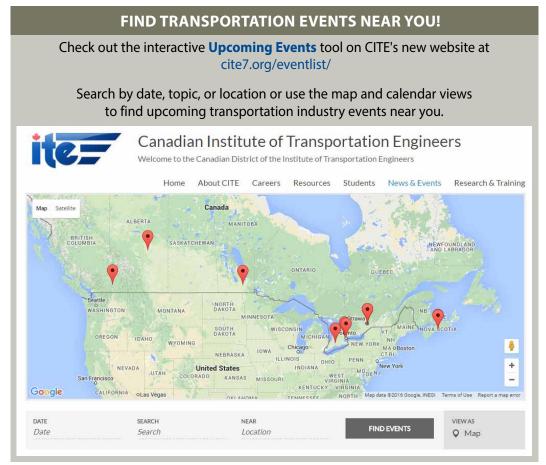


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