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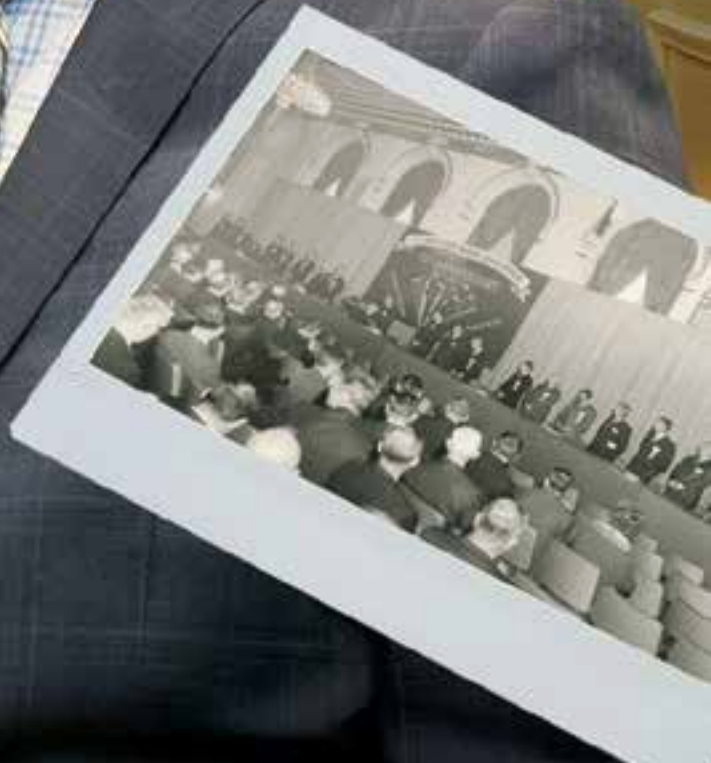
Celebrate
125 Years of *Good Roads*
with **Chris Traini**
OGRA President



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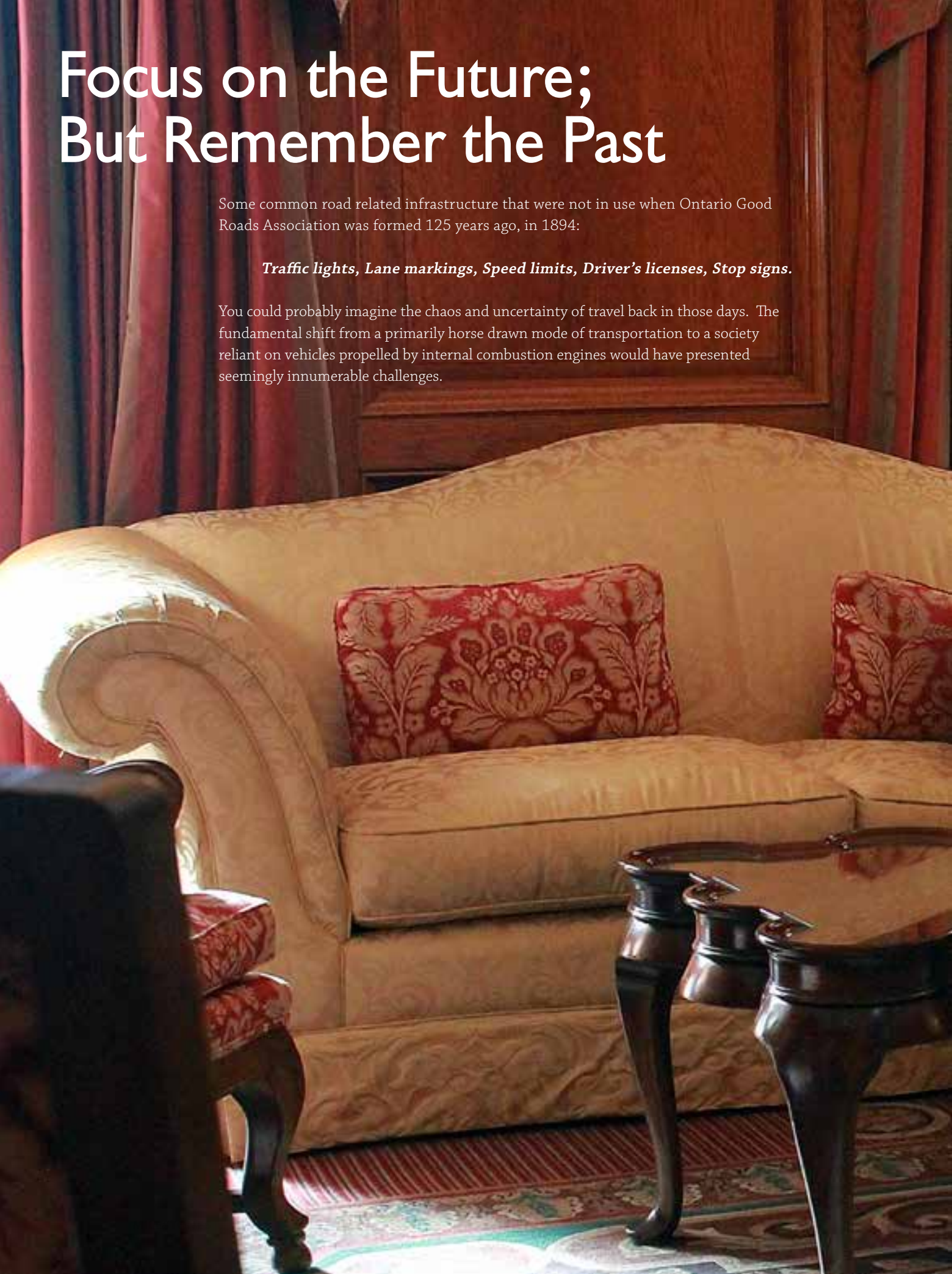
OGRA Executive
Director

Focus on the Future; But Remember the Past

Some common road related infrastructure that were not in use when Ontario Good Roads Association was formed 125 years ago, in 1894:

Traffic lights, Lane markings, Speed limits, Driver's licenses, Stop signs.

You could probably imagine the chaos and uncertainty of travel back in those days. The fundamental shift from a primarily horse drawn mode of transportation to a society reliant on vehicles propelled by internal combustion engines would have presented seemingly innumerable challenges.





reflections
BY CHRIS TRAINI
President, OGRA

One primary concern, and certainly a limiting factor to the utilization of the automobile, was the sorry state of the roads across North America.

The Ontario Good Roads Association was founded by a like-minded group of dedicated individuals who recognized the importance of a well maintained road system. Reliance on trains for the transportation of goods, especially those related to agriculture, was limiting the growth and prosperity of Ontario. The founders of OGRA helped to lay the groundwork for a province wide road and highway network that allowed for Ontario to prosper.

Over the years our members, volunteers and staff have progressed transportation related policy, education and technology for the benefit of all Ontarians. Countless hours of advocacy for better and more progressive regulation and legislation, including recent success with minimum maintenance standards, provide not only a level of service for drivers using our roads, but also a strong legal defense of reasonable municipal maintenance activities.

Our society is again approaching a fundamental shift in the transportation paradigm. Autonomous vehicles are a reality, and being ready for the impact of this new technology will be critical for all of us. And just like back in 1894, the

Ontario Good Roads Association will be there to provide guidance and assistance during this challenging transition. This year's conference will have a special focus both looking back at our history and also forward into our future. Tom Nichols, our keynote speaker on Monday morning, will be speaking about the 'death of expertise'. He will be joined by numerous other speakers that can be viewed in your 2019 OGRA Conference app, available on both the Apple Store, and Google Play stores, as well as at www.OGRAConference.ca.

There will also be a number of workshops to prepare us for new and developing technologies such as *Roadway Connectivity / AV / Internet of Road Things, 21st Century Non-Paved Roads, and Beyond Metrolinx – Creating Localized Transit in Smaller Communities*. Be sure to mark the times these workshops start in your 2019 OGRA Conference App.

As I pass into the OGRA history books I would take this opportunity to thank all those that encouraged and supported me during my time with the board of directors and my presidency of the organization. I wish all the best for the incoming president Rick Kester, CAO, City of Belleville, and am confident he and the rest of the board will launch OGRA successfully into our next 125 years. My service with the organization has been one of the most rewarding opportunities of my career and I highly encourage those reading this article to get involved, you won't regret it for a single second! 🍷



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Establishing the ONTARIO ROAD INFORMATION EXCHANGE

By DOUG ALLPORT
Transnomis Solutions Inc.
FAHAD SHUJA
Member Services Coordinator, OGRA

OGRA is taking a leading role in solving a longstanding problem for Ontario travellers and emergency responders. The problem relates to the communication and presentation of road closures, obstructions, restrictions, conditions, incidents, and events on municipal roads.

Renfrew County was the first of many Ontario counties to address this problem regionally. In a desire to reduce emergency response times their paramedic service, like paramedic services throughout Ontario, navigate roads maintained by 19 public works departments, MTO and MNR within the County. They also respond in six adjoining Ontario counties and regions, and travel to hospitals in Ottawa. The problem is that they receive road obstruction information from each road department by email and fax. This information is hard to map, and, for example, used to determine the impact of a 63 km detour around a lake. Today they have a live map, and their road obstruction information is provided to them from popular navigation applications such as Waze and TomTom.

Truckers face similar and additional challenges. In one day, three different trucks struck the same low bridge in eastern Ontario because there was no central reporting system that accurately mapped truck routes, hazardous material routes, low overheads, load restrictions, and poor approach information.

Transnomis Solutions Inc., an Ontario technology company introduced a solution to these challenges in 2017, and they now serve about one third of Ontario municipalities. Transnomis developed a web service known as Municipal511 and Responder511. Users log in to a web service, enter road data, and have it distributed for them. The road information is presented on a provincial map (see www.Municipal511.ca), and

Responder511 where additional situational awareness information can be added. The information marked “public” is distributed to leading navigation companies (e.g. Waze), data providers to specialized trucking applications, and vendors of specialized applications used by responders. Perth County was an early adopter of the technology as well, and their implementation was recognized by three national public safety organizations in 2018.

Transnomis has a unique combination of expertise to tackle a problem of this scale. Dr. Simon Foo studied intelligent transportation systems (ITS) and has developed ITS solutions for the City of Toronto, York, Durham, and Waterloo Regions, and the Ministry of Transportation. Doug Allport led the development of provincial and national public safety situational awareness systems, and he laid the groundwork for our national public alerting system. When OGRA started looking for technology to support the OGRA - Municipal Alliance for Connected and Autonomous Vehicle (MACAVO) initiative, Transnomis provided OGRA with the MACAVO web map at no cost.

Working with Transnomis, OGRA will establish an Ontario Road Information Exchange Advisory Committee in the coming months. It will consist of municipal public works, emergency responders, and other key stakeholders. The committee will identify goals, objectives, policy, and direction for the Exchange.

For more information on this innovative solution please contact Fahad Shuja (fahad@ogra.org), OGRA Member Services and OPS Coordinator or Doug Allport (doug@transnomis.com), Transnomis Solutions Inc. (www.transnomis.com) ●

MARK YOUR Calendar



events
2019

January

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March

March 4-8:

Advanced Sewer and Watermain Construction Inspection

As water & wastewater contract administration/inspection complexities continue to evolve, this course provides insight into a wide variety of issues which both directly and indirectly impact these responsibilities. The participant will garner a broader view of the expectations associated with fully successful water/wastewater project outcomes.

March 25 – 29:

Road Design: Intersection

Introduces you to the basics of designing new and retrofit urban and rural intersections.

Storm Sewer Design

Introduces you to the fundamental design principles used to estimate stormwater runoff and the principles used to design storm water systems.

March 29:

OAPC/OGRA Municipal HMA Liaison Committee Meeting (OGRA)

Coordinate the committee and three subcommittees (Contractor Works, Education/Innovation, and Quality Control/Quality Assurance)

April

April 1-3:

World Road Association (WRA) Asset Management Technical Committee Meeting (Slovenia)

Participation on the main committee and Education subcommittee

April 1-5:

Stormwater Management

Comprehensive overview of the concepts of stormwater management and stormwater management system design.

April 2:

Computerized Maintenance Management Systems - What's in it for your municipality?

Become familiar with the value of Computerized Maintenance Management Systems (CMMS) and Enterprise Asset Management (EAM) systems, and the process to decide if this tool is right for your municipality. This workshop has a particular focus on achieving the benefits and avoiding the pitfalls of CMMS and EAM systems.



April 4-8:

Transportation Association of Canada Spring Technical Meetings (Ottawa)

Participate on Asset Management Task Force (Past-Chair), Pavement Standing Committee, and Soils and Materials Standing Committee

Participate on Project Steering Committee (Chair) for Performance-Based Decision Making – Lessons Learned and Practitioner Toolkit

April 8-12:

Bridge & Structure Inspection

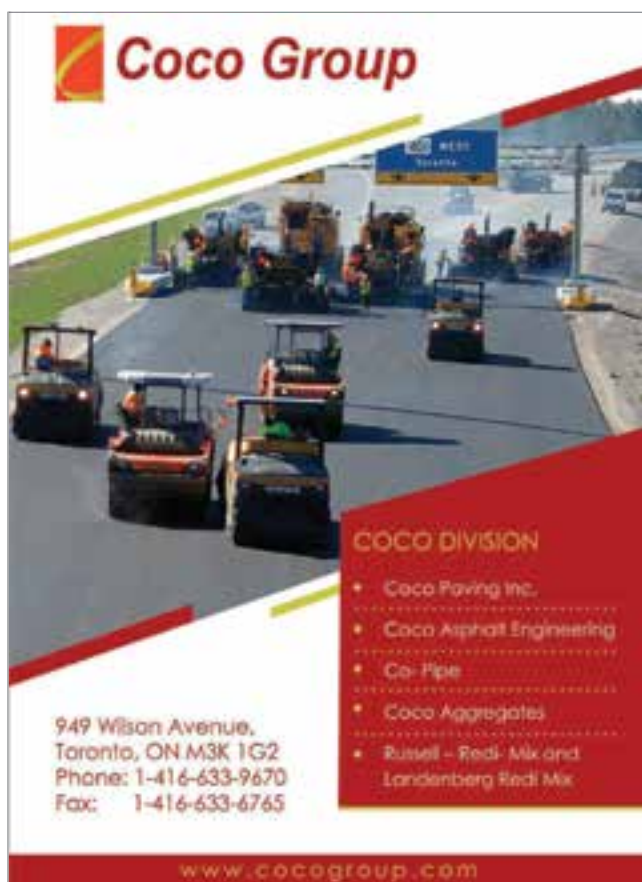
Introducing the concepts, procedures, and methods used in bridge inspection, you will develop the ability to assess the condition of a structure and recognize problems that require follow-up action.

Watermain Design

Prepares you to design new watermain systems and to design additions or replacements for existing systems.

Sanitary Sewer Design

You will review a proposed or existing system to provide an overall understanding of sanitary sewer design. You will then complete a sanitary sewer design by using first principle methods and/or design aids (nomographs, tables, etc.).



April 9-18:

OAPC Partners in Quality Road Tour Seminar

London - 9th, GTA - 11th, Sudbury - 16th, Ottawa - 18th

Present findings of the 2019 Municipal Asphalt Paving Tonnage Survey

Opportunity to give a second presentation on OGRA initiatives

April 29 – May 3:

Road Design: Geometrics

Provides you with the tools necessary to assist in the design of safe and efficient roads.

Asset Data Collections & Condition Evaluation

Effective management of public assets relies on instant access to detailed information about their history, location and current condition. This course investigates the data that is required by asset type, various methods for collecting and organizing data into logical categories, and maintaining the data over the life of an asset. Methods for determining the condition of several asset types and assigning a rating will also be covered.

May

May 6-8:

Guelph Road School (T.J. Mahony and C.S. Anderson)

Road School courses address a wide range of the technical and managerial skills needed to manage municipal road networks. For more information on other available course, as well as Eastern Road School please visit www.OGRA.org

Fleet Management

Offers an overview of best practices related to municipal fleet management, procurement, equipment maintenance programs, and regulatory compliance.

Introduction to Plan Reading and Contract Interpretation

Guides you through the relevant data found in various engineering documents then reviews the components of a municipal contract. Using the information, you work through practical examples in applying the data to the administration of construction contracts.

Managing Human Resources

You will learn to apply the functions of human resources in supporting the operational goals and responsibilities of managers and supervisors.

Municipal Legislation

Introduces you to municipal law in general, as well as specific issues related to their legal obligations as road supervisors.

Overview of Municipal Road Design and Construction

Reviews the processes and stages of road construction, from initial evaluation of needs, to preliminary design through to construction and project completion. Examples will be used to illustrate the stages of approval, design, and construction of both rural and urban municipal road projects.

Soils and Pavements

Introduces you to soils and paving materials, their classification, properties, and application.

T.J. Mahony Maintenance Section

Provide participants with a basic foundation prior to attending any of the C.S. Anderson Road School courses. The T.J. Mahony Road School is a two-year course comprised of two separate semesters. Road construction and road maintenance are offered in alternate years. 2019 offering is maintenance.

May 27 – June 1:

Managing Data for Municipal Assets

Includes the principles and best practices of data management, managing data throughout the asset's life cycle and extracting the most value for decision making in asset management. You will learn the importance of data standards, data systems, and integrating data with asset management plans.

May 28 – 29:

Municipal Pavement Condition


Teaches how to assess the condition of the flexible pavements in your roadway network. Through a mix of in-class and a field training circuit, you will learn to identify and classify by type, extent and severity, typical pavement surface distresses that contribute to the reduction in serviceability of the pavement. Through the assessment of pavement condition, you will gain an understanding of potential maintenance and rehabilitation treatments that could be used to cost-effectively extend the life of the pavement.

May 30 – 31:

Flexible Pavement

You will learn techniques for the effective assessment of the condition of flexible pavements including surface distress, roughness, structural capacity, etc. The assessment methods will be used to develop an understanding of the timing and extent of pavement maintenance, preservation and rehabilitation techniques to preserve and cost-effectively extend the service life of the pavement. You will benefit from real life examples of successes and failures of pavement rehabilitation techniques.





Canadian Infrastructure Bank

By SCOTT BUTLER | Policy & Advocacy, OGRA



In its 2016 Fall Economic Update, the Government of Canada outlined its plan to build upon previously announced investments reflecting the “need to invest to spur long-term growth”. The federal infrastructure plan will see significant investments in public transit (\$25.3 billion through to 2027/28) green and social infrastructure (\$21.9 billion through to 2027/28) and trade, transportation and rural/northern investments (\$12.1 billion through 2027/28). Coupled with existing infrastructure programs, total infrastructure investment is projected to cumulate to \$186.7 billion through to 2027/28.

To realize its ambition in the infrastructure realm, the federal government announced at the same time that it would establish a Canada Infrastructure Bank (CIB), seeding it with \$35 billion of capital. Of that, \$15 billion was to be taken from the \$60 billion in existing funds set aside for infrastructure and another \$20 billion will be financed and booked as equity or debt so as not to affect the government's bottom line. The Government of Canada's Advisory Committee of Economic Growth heralded this announcement. A select consultation process helped inform the bank's initial mandate. (Editor's Note: OGRA was asked to make a deputation to the Committee during the consultation process and did so).

In 2017, the Advisory Council estimated that the bank could unlock between \$2.1 trillion to \$3.1 trillion in private sector investments.

To finance this ambitious plan the federal government acted on the Advisory Council's recommendation to establish a Canada Infrastructure Bank. Bluntly stated, the Bank was designed to give the federal government a mechanism for tapping into the vast pool of funds held by global pension funds, to multiply the level of investment and invest in revenue-generating infrastructure projects. More specifically, it was hoped that the

large Canadian pension funds (e.g. OMERS, Caisse de dépôt et placement du Québec, the Ontario Teachers' Pension Plan etc) who have been aggressive investors in similar projects internationally could be enticed to invest in domestic projects, something that they have demonstrated a noticeable reluctance to do to date.

By leveraging the sector-specific knowledge of the private sector and by working across levels of government, the infrastructure bank claims that it will create a pipeline of potential projects and select investments that provide the “biggest economic, social and environmental returns”.

For all the optimism and rhetoric, it has been hard to see progress happening with this initiative since the initial announcement in the fall of 2016. People have been eager to see if the government's estimate that for every \$1 of public funds, the bank would be able to incent between \$4-\$5 of private investment.

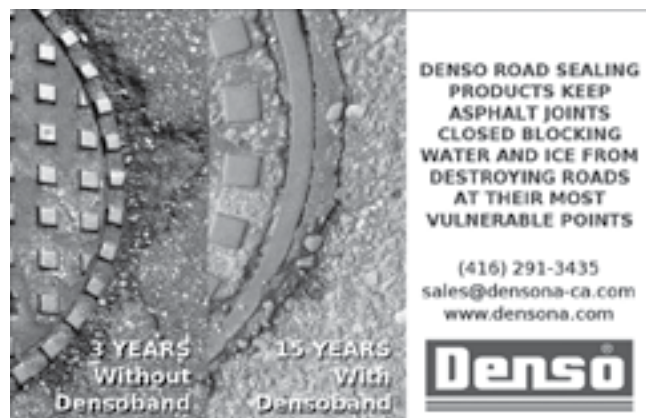
In 2017, the Advisory Council estimated that the bank could unlock between \$2.1 trillion to \$3.1 trillion in private sector investments. Moreover, the Council believed that these projects would realize savings of approximately 23 per cent over

traditional government infrastructure investments. This 23 per cent figure was calculated by eight per cent savings through better project selection and 15 per cent savings through “streamlined delivery”.

The business website The Logic recently release a trove of documents that it had obtained through access to information requests regarding the infrastructure bank. These documents were prepared by the aforementioned Economic Growth Council and they provide the first insight into how the bank intends to operate.

The following are some of the key considerations for the CIB.

- All federal infrastructure projects will be considered by the CIB for potential private-public partnerships.
- The federal cabinet would only have an “early veto” on projects. Once a project moves past this stage, it would be immune from political interference. The intent is to ensure returns for investors. The Council notes that this type of interference would “substantially erode” the market's confidence in the independence of the bank while also creating “a level of uncertainty that would render the bank largely unable to attract private capital to finance projects”.
- Prioritizing infrastructure that encourages trade both within Canada and between Canada and other countries.



- The council encouraged the bank to focus on projects with a national scale. As an example, the council identified the twofold expansion of the Asia-Pacific Gateway.
- At the municipal level, the Council wants the CIB to prioritize projects that reduce congestion in Canada's largest cities.
- Collaboration with First Nations communities to address the housing, roads, and access to clean drinking water infrastructure gap.
- The council also suggests investment in technological innovation, including converting Canada's largest metropolitan areas to smart cities and setting the entire country up with 5G broadband connectivity.

To fund this, the Council took an inventory of Canada's infrastructure assets and calculated their value using the earnings before interest, tax, depreciation and amortization (EBITDA) of each one and multiplying it. These calculations varied widely depending on which asset class was being evaluated. For instance, toll roads were determined to be worth 12 times EBITDA, airports 17 times EBITDA, utilities nine to 11 times, whereas Canada Post was deemed to be a relatively paltry six times EBITDA. According to council estimates, the sale price range for the 23 different assets that it identified was \$197 billion to \$233 billion.

First Investment and On-Going Skepticism

The CIB's first investment will be to provide a \$1.28 billion loan to help build a multibillion-dollar electric rail system in Montreal. This project is a \$6.3 billion project that is largely managed and funded by Quebec's pension regime. Interest rates for the project will rise from one per cent to three per cent over the 15-year term. More importantly, this loan frees up pledged federal money for the project, which can now be put towards other Quebec infrastructure plans.

The CIB has not yet published a list of projects it believes are appropriate for its consideration, but the federal government has

indicated that it will work with provinces, territories and cities to form the list that would provide a five-year time horizon. What should have been a good news story for the CIB was undone by criticism that followed the disclosure that the bank has tapped the federal government coffers to the tune of \$11.3 million to cover operating expenses. Critics have questioned if, given the slow pace of progress, these costs are worth it. Appearing on CBC in September, federal Minister of Infrastructure and Communities, François-Philippe Champagne defended the Bank's progress to date. "This is about doing more. I think Canadians should be happy that that money that is done by the bank as co-investors is freeing up capital so we can invest more in other places in Canada.... But [the CIB leadership] need to have a national interest lens in how they are investing because we created the bank to make a difference in Canada. My challenge to the board is think big and think smart."

More recently, the federal minister provided some insight into the evolution of the bank's approach, at least as conceived by the federal government.

Provincial governments have leaned heavily on the federal government to use its influence with the Canada Infrastructure Bank to fund broadband internet projects, particularly in rural and remote locations across the nation. In the recent past, provincial governments have argued broadband projects yield a long-term revenue stream that would be enticing to private investors willing to pay the connection costs.

Infrastructure Minister François-Philippe Champagne told the Canadian Press that a single broadband line into one rural community is unlikely to grab the attention of large institutional investors, such as pension funds. He is therefore looking at how different revenue models could entice private backers or help bundle several smaller projects into one large proposal.

Champagne said he has told provinces, territories and municipalities to make sure their broadband projects are "bankable," meaning they must be able to generate revenue. 🌐





A Gravel Road Less Traveled

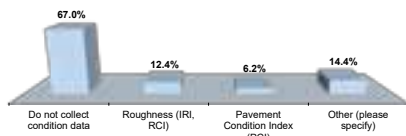
By Dr. ROOZBEH RASHEDI, Ph.D., P.Eng.
Vice President of Technology,
Infrastructure Solutions Inc.



Gravel roads account for approximately 60% (about 626,000 km) of Canada's public road network. In the context of road network management, gravel roads typically represent lower volume road segments (AADT < 400) and often receive less management attention than paved roads. Gravel roads, however, play a critical role in functioning societies. They are an important means of product transport, are the lifeblood of many agricultural communities, provide access to remote communities and recreation areas, and serve local residents, especially in semi-urban and rural areas.

Maintaining gravel roads is a major activity for many municipalities and requires regular interventions to provide safe and smooth travel. Municipalities spend millions of dollars every year on gravel road maintenance and rehabilitation activities. A comprehensive road management system that includes gravel roads can have a significant positive impact on a municipality's operating and capital investment efficiency, and long-term road network performance.

A gravel road management system (GRMS) provides the means of data collection and database management, gives insight into the existing conditions and the history of network performance, and allows municipal officials to make better-informed decisions. GRMS also facilitates the analysis of financial trade-offs and the long-term implications of various management decisions, such as surface treating gravel roads. An effective GRMS utilizes quantifiable deterioration models, such



as roughness progression and surface material loss, to perform an economic evaluation of different alternatives and maintenance strategies.

Physical condition of a road section is an important input to any GRMS. With gravel, however, establishing condition is challenging, and it can change rapidly from the impact of traffic and harsh weather. From an analytical perspective, however, if condition data is not collected using a well-defined rating system, the results can be subjective and hard to interpret. Gravel road sections frequently experience underlying distresses that will undermine the benefits of routine maintenance and cause more rapid deterioration and loss of serviceability. Such underlying distresses can comprise of localized flooding and wash-outs; poor ditching and damaged culverts; soft or organic subgrades; substandard vertical or horizontal profiles; and inadequate granular materials or structure. These conditions will not be addressed by routine maintenance but can be documented through systematic condition inspections for future remedial treatments.

A recent Canada-wide survey by Infrastructure Solutions Inc. (ISI) that included 97 municipal respondents representing around 40,000 km of gravel roads, has determined that the majority of municipalities do not collect condition data about their gravel roads (Figure 1). A perceived lack of benefit from a time and cost perspective discourages municipalities from maintaining a detailed inventory database. Also, the lack of a simple GRMS to help with the condition assessment and data collection process is a contributing factor. Although a high percentage of municipalities do not collect condition data, they generally do document maintenance history. Maintenance history records can be effective within a GRMS to monitor surface deterioration rates and assist with management decisions.

Recent advancements in decision support technologies now enable municipalities to take advantage of powerful GRMS solutions. As an example, DOT (Decision Optimization Technology)™ Software¹, is an easy-to-use powerful, Canadian-built, capital planning tool that analyzes gravel roads in conjunction with paved roads to achieve the highest financial efficiency. Administrators can now easily access geospatial, inventory attribute, and condition data for any gravel or paved

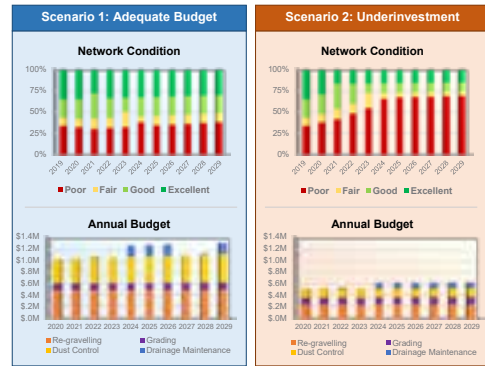


Figure 2: Gravel road network analysis using DOT (Decision Optimization Technology)™

road. Condition data for gravel roads can be collected using practical condition rating schemes, such as those developed by MTO or ASTM, to quantify the extent and severity of the relevant surface defects and distresses and to inform the decision-making process.

Road managers can reduce future financial risk, better evaluate their investment strategies, and develop cost-effective maintenance and rehabilitation plans. As an example, Figure 2 compares two scenarios with different budgeting strategies over a 10-year planning horizon. Scenario 1 represents an adequate level of investment for maintenance to maintain the current network condition over the planning horizon. Scenario 2, on the other hand, is an under-budget situation that results in deteriorating performance with large percentage of roads left in poor condition. These analyses can help to identify potential risk areas, minimum maintenance or serviceability requirements, and deficit projections.

Decision support software with sound engineering principles and effective analytical algorithms will generate accurate and implementable Asset Management Plans (AMP). Put another way, if the engineering is wrong, the AMP is also wrong. The Public Works department plays a critical role in establishing the engineering requirements for a properly funded and sustainable AMP. A quality road management system is a powerful tool, giving Public Works the ability to fully analyze road network requirements, and work with Council to establish reasonable levels of service. Perhaps the most significant impact this software can have is to enable the Public Works department is to establish conclusive evidence to justify recommended budgets and expose the long-term impact of underfunding a road network. 🍷

¹ For more information on DOT™, please email info@infrasolglobal.com

Becoming a Magnet Attraction

By CLAUDETTE HUTCHINSON CTD, APTD
Curriculum Coordinator, OGRA

As a talent development specialist, I've learnt the type of person that can positively impact your business is someone that yearns for satisfying, meaningful, but challenging work. They want proof that what they do is essential and desire real opportunities to enhance their careers. Comparable to the private, federal and provincial sectors, working for a municipality can fulfil their needs and offer so much more.

So how can your municipality attract this type of talent?

The first step is to **understand what you have to offer.**

A potential employee is a customer and recruiting is how you sell your business. A municipality must take the time to know and articulate its value proposition. Defining what you offer and how talent can benefit from your offerings is crucial.

Start drafting your value proposition by asking questions such as:

1. Why do I like working here?
2. What is rewarding about working for my municipality?
3. What unique benefits have working and living in my municipality given me?

For example, a smaller municipality may think "We can't offer all the perks that bigger cities have", and that may be true. However, asking discovery questions reveals your selling features like affordable home ownership, a tight-knit community, and personal connections- which make compelling incentives.

Explore what makes your municipality unique then incorporate the information into your recruitment messaging. Remember, the same things that attracted you will entice others.

The second step is to **know your audience.**

The talent demographics are shifting, and according to Forbes¹, Millennials born between 1982 and 1993 will make up about 75% of the workforce by 2025. Moreover, Immigration, Refugees and Citizenship Canada states over 200,000 newcomers migrate to Ontario, yearly.

Jessica Naumoff, the Strategic Recruitment Director for ManPower, states "One of the best ways to ensure

¹ <https://www.forbes.com/sites/danschawbel/2013/09/04/why-you-cant-ignore-millennials/>



Attraction

for the Next Generation of Talent

government attracts the next generation of talent is to know what influences their decisions.” However, how do we know what influences their decisions? Integral Talent Systems completed a 14-month research study on the factors that motivated and engaged workers and based on their findings, we recommend focusing on Diversity and Inclusion and Career Development initiatives.

Diversity and Inclusion (D&I)

D&I is a hot topic, but what is it? One question D&I answers is “How can I fit in?”. Regardless of which type of talent you are attempting to attract, there is a universal desire to belong.

Creating a place of belonging takes mindfulness and strategy. Too often, diversity and inclusion will only focus on physical differences, but municipalities have the option to move beyond this restrictive definition to embrace all backgrounds, perspectives, and operating styles. Instead of focusing on the insurmountable objective of removing our biases and stereotypes, focus on teaching individuals to react with curiosity about our differences.

Cultivating this mindfulness takes work, and the challenge your municipality may face is the absence of a strategy. An easy way to start is by convening a diversity and inclusion committee and task the group with finding methods to teach about differences. For example, how often have you heard it said “don’t waste time hiring Millennials because they won’t stay”. A committee could commission someone like Jeff Neal of ChiefHRO.com, a government issues and HR specialist, to explain why Millennials are open to moving jobs. Neal discovered if a Millennial feels their company or organisation doesn’t care about them or sense that they’re being treated as a resource that can be dropped when they’re no longer needed, it becomes impossible to build loyalty. However, if there is loyalty, Millennials will stay.

Intentionally creating an environment where Millennials and newcomers feel they fit may sound like pandering or “being soft”, but if you want to become magnetic, you need to demonstrate that your municipality is inviting to all types of people.

Career Development

During the next 5 to 10 years over 50% of senior municipal staff are eligible to retire, which may be frightening to some,

but this provides a significant opportunity for recruiting Millennials and newcomers. Experienced newcomers and ambitious Millennials, who desire career growth will be drawn into your municipality by the prospect of growing into a senior role.

Millennials and newcomers want the chance to develop, to lead, and to make a difference, and municipalities have the flexibility to generate these opportunities. It would not be difficult to create an informal mentorship program that allows knowledge to be transferred between senior staff and new talent. Combine the mentorship program with formal training programs such as Effective Management or Supervision Skills for Public Works offered through OGRA to develop more of the skills needed to operate in a senior role within your municipality. However, one of the most significant advantages a municipality has over its competition is their employees can tangibly see the difference their contributions make to their community.

The third step is to **adjust your approach**.

Are the standard recruitment tactics failing to attract talent to your municipality?

Typical recruitment processes include creating a job posting that provides a title, summary, responsibilities and duties, qualifications, and skills. If you search LinkedIn, Glassdoor,

Indeed, Monster, and every other job posting website, the descriptions typically look the same. To differentiate your municipality, you need to adjust your approach.

As mentioned earlier, recruiting is selling your business, you need to do more than list off day to day responsibilities and ask about their qualifications. Use your value proposition to communicate your uniqueness. Spotlight what you have to offer or what it is you enjoy about working for your municipality. Ask your employees to become ambassadors, recording mini videos that answer why they have chosen to work and live in their municipality. Post your videos on social media and provide links in the electronic copy of your job posting. Use social media to spread the message that your municipality is the place talent wants to be.

As the demand for talent increases, municipalities are in an excellent position to increase the effectiveness of recruitment and retention strategies. Showcasing your opportunities helps up and coming talent realise that achieving their lifestyle and career aspirations of belonging, growing, and making a difference is within reach. When others are able to see this message clearly, your municipality becomes a magnetic attraction for top talent. ●



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By: LAURA STERVOSKI



125

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1952

What is OGRA?

Ontario Good Roads Association (OGRA) voices the road-related concerns of all Ontario municipalities and represents more municipalities than any other association in Canada.

The association was founded in 1894 when roads were sadly neglected. County roads were "imaginary pathways paved with quagmires, wash-outs, cobblestones and profanity." Public funds were being diverted from roads to railways. No level of government was willing to accept responsibility for roads in Ontario.

OGRA was determined to change that. It was organized to promote a better road system and to provide a forum for the discussion of Ontario's transportation matters.

REPORT OF PROCEEDINGS

OF THE

Twenty-Seventh Annual Meeting

OF THE

Ontario Good Roads Association

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"If the provincial government and Metrolinx are to be taken at their word, this change in how public transit infrastructure is built could be the beginning of a much-needed overhaul. "





Rail Integrated Communities – A Possibility in Ontario?

By THOMAS BARAKAT
Policy & Advocacy, OGRA

The Ontario Progressive Conservative Party was elected to government in June with a majority mandate. Put lightly, the party's vision for the province is markedly different than that of their predecessors. Since the June election, this new government has moved quickly on a range of fronts. To help establish a narrative that the province is now a business-friendly environment, they have adopted the marquee slogan 'Open for Business'. Some worry that in an attempt to establish this reputation the government will eliminate important regulations, sell off assets, and privatize services. Whether or not these worries are warranted is yet to be seen. They have not been shy about doing things differently, which in itself is not inherently worrisome.

Over the past fifteen years the previous government put their stamp on public transit planning. In the Greater Toronto and Hamilton Area (GTHA), Metrolinx was established to guide the process of developing and servicing the region's public transportation infrastructure. Service levels were increased on existing lines, the Presto Card system was rolled out, new

stations were built, and the redevelopment of many existing GO stations was undertaken. This was done in tandem with Places to Grow, the land use planning policy which encouraged intensification around transit hubs. The intention was to build transit-oriented development which would reduce sprawl and congestion. Many new and redeveloped GO stations came with massive parking structures that provided an abundance of free parking.

In October, the government indicated its intent to reform the process in which the region's GO and Regional Express Rail (RER) stations are built. Toronto's Mimico Station will be the first of twelve to be redeveloped under the new process. Metrolinx has stated that a proposed deal is in place where a developer would pay all construction costs for a new station building, parking facility, and public park at Mimico Station. In exchange, the company would be granted development rights above the station to create a mixed-use development.¹ In late November, Metrolinx announced that it was halting the delivery process for new GO stations while it assessed the status of transit projects and determined the feasibility of applying a market driven approach to delivering transit infrastructure.²

If the provincial government and Metrolinx are to be taken at their word, this change in how public transit infrastructure is built could be the beginning of a much-needed overhaul. However, the proposed changes may not go far enough. The province should take this opportunity to not only alter the process in which new public transit stations are built, but to fundamentally reimagine how this infrastructure can better serve communities. To understand the possibilities, one must

look beyond the transit-oriented developments that most North American cities have looked to in the post-automobile era.

Transit-Oriented Developments

Transit-oriented developments have been defined as “mixed-use, walkable, location-efficient developments that balance the need for sufficient density to support convenient transit service with the scale of the adjacent community.”³ They are compact, mixed-use communities, centered around the transit station that, by design, invites residents, workers, and shoppers to drive their cars less and ride mass transit more.⁴ While transit-oriented developments themselves are usually walkable, they are often not complete communities that provide jobs, schools, services, retail, entertainment, and recreation.

According to transportation planner John Calimente, the underlying assumption for those residing in a typical North American suburban transit-oriented development seems to be that residents may commute to work by public transit, but will use their cars for most other tasks, including getting to and from the station.⁵ That is why most suburban train stations include massive parking structures. Outside of working hours, the transit service levels drop, making it unlikely to be used by individuals who own an automobile. Calimente adds that even riders who would actually prefer to walk or bike home are dissuaded from doing so “by unattractive, desolate, and often unsafe station areas that lack any shops or services, access roads without sidewalks or bike paths, and the long distances involved as a result of single-use zoning that separates shops and services from residences.”⁶ He also adds that these transit-oriented developments are usually “missing the morning-to-night vibrancy that is produced when a wide range of uses come together in an area with greater population density and lower automobile usage.”⁷

Although transit-oriented developments in North American suburbs may increase transit usage to some extent, they are unlikely to significantly reduce dependence on the automobile. Developments near public transit must be based on the idea that residents of the community must easily be able to conduct all of their routine business through a combination of public transit and active transportation. The transit system and its surrounding neighborhoods must easily be able to accommodate residents without an automobile.



¹ Spurr, B. 2018. <https://www.thestar.com/news/gta/2018/11/30/ontario-to-tap-private-sector-for-new-go-stations-admits-strategy-may-delay-projects.html>

² Lafleche, G and B. Sawchuk. 2018. <https://www.stcatharinesstandard.ca/news-story/9061006-grimsby-go-station-plan-will-be-stopped/>

³ Dittmar, H. and G. Ohland, eds. 2004. *The New Transit Town: Best Practices in Transit-oriented Development*. Island Press.

⁴ Bernick, M. and R. Cervero. 1996. *Transit Villages for the 21st Century*. McGraw-Hill.

⁵ Calimente, J. 2012. Rail integrated communities in Tokyo. <https://www.jtlu.org/index.php/jtlu/article/view/280/201>

⁶ Ibid.

⁷ Ibid.



Unfortunately, this is not what normally gets built in most of the GTHA.

Rail Integrated Communities

Many look towards Western Europe when drawing inspiration for public transit systems. However, looking to the Japanese capital of Tokyo may prove to be more useful. Tokyo has one of the most heavily used rail systems in the world, providing frequent, all-day service to the city centre as well as the suburbs. The urban villages surrounding rail stations provide riders for the system and are simultaneously destinations in and of themselves. These areas are full of life as they are invariably mixed-use. They contain retail, education, government offices, housing, dining, and entertainment all within walking distance. The Japanese have been building these communities for over 100 years.

Calimente argues that the type of communities in Tokyo's suburbs are different than what is found in North America and coins a term, rail integrated communities, to describe them. He defines such communities as "high density, mixed-use, pedestrian-friendly developments around railway stations that act as community hubs; are served by frequent, all-day, rail rapid transit; and are accessed primarily on foot, by bicycle, or by public transit."⁸ Could such communities be built in North American suburbs or are they a uniquely Japanese phenomenon?

The Japanese Experience

Although there are historical and cultural factors at play, Japanese rail integrated communities were developed through a combination of government policy, socioeconomic factors, and innovation by owners of private railways. In the late 1800s, Japan's first railway system was developed through a combination of public and private projects throughout the country. In 1906, the Japanese government decided to nationalize the country's main rail lines. However, private companies were still able to own and operate smaller local

lines. As a result, the owners of these companies were forced to look beyond railway operations for profits.

Calimente argues that what might have bankrupted the private railways turned out to be a blessing in disguise. As these companies were forced to diversify their businesses into other areas, particularly real estate, operators did not remain wholly dependent on fares for revenue. Private railway companies in Osaka and Tokyo began developing and selling residential land along their train lines, constructing and operating department stores at terminal stations, as well as building tourist attractions along their routes. Residential growth fuelled by the private railway developments on the western side of Tokyo in the 1920s and early 1930s caused traffic to concentrate at terminal stations. Eventually, these stations became sub-centers of the original business district, creating the polycentric city structure that is modern Tokyo. One of these terminal stations, Shinjuku Station, is now the world's busiest train station, handling over 3.6 million passengers a day.

By branching out into businesses closely connected with the railway industry, private Japanese railway companies were able to succeed, while those in Europe and North America slowly began to fail due to increased competition from the automobile. Unlike the bankruptcy-hit railway operators in most other countries, many of the original private railway companies are still the biggest players in the Japanese railway industry today. By the time of the rise of the automobile in Japan in the mid-1960s, Tokyo's dense rail network and its station area communities were already well established.⁹

Further differentiating the Japanese experience from that of North America is that government policies and regulations have supported public transit and discouraged car ownership. Such policies have made driving expensive, while

⁸ Ibid.

⁹ Ibid.

simultaneously making public transit cheaper. As a result, the mode share for walking, cycling, and transit is greater than that of driving and the Tokyo region enjoys "...arguably the most sustainable pattern of regional development among any of the world's megacities."¹⁰

Takeaways

While the rail integrated communities born from the Japanese experience may not be directly transferable to the GTHA, there are some aspects that could guide the way forward in this new market driven approach to building commuter stations. Private Japanese railway companies essentially needed to create their own ridership after they were relegated to smaller local lines. They did this by creating communities that were completely integrated with rail stations. In the GTHA, Metrolinx owns 80% of the GO Train corridor network¹¹ and residential real estate has not played a major role in station development. Perhaps the government should take this opportunity to challenge developers to create more riders for the rail network, not simply more area residents. The previous government took a first step in zoning areas around public transportation hubs for intensification. This government could build on that by not only intensifying, but by pushing for development that would reduce automobile dependence. This could be achieved by lowering the parking minimums in new developments

surrounding public transit stations. Furthermore, rather than mandating developers to build massive parking decks at redeveloped stations, which become ghost towns on evenings and weekends, developers should be given the opportunity to use this space for development which would provide the area with the morning-to-night vibrancy needed to sustain a true rail integrated community.

The new direction the provincial government is taking with public transit infrastructure will provide some welcome change, but it may not be drastic enough. The government should use this as an opportunity to not only alter the process in which new public transit stations are built, but to fundamentally reimagine how this infrastructure can serve the communities around them. While the Japanese experience may not be entirely transferable to the GTHA, there are lessons to be learned. Public transit stations can be the cornerstones of communities. 🌐

¹⁰ Cervero, R. 1998. *The Transit Metropolis: A Global Inquiry*. Island Press.

¹¹ Metrolinx. 2019. http://www.metrolinx.com/en/projectsandprograms/corridorownership/corridor_ownership.aspx



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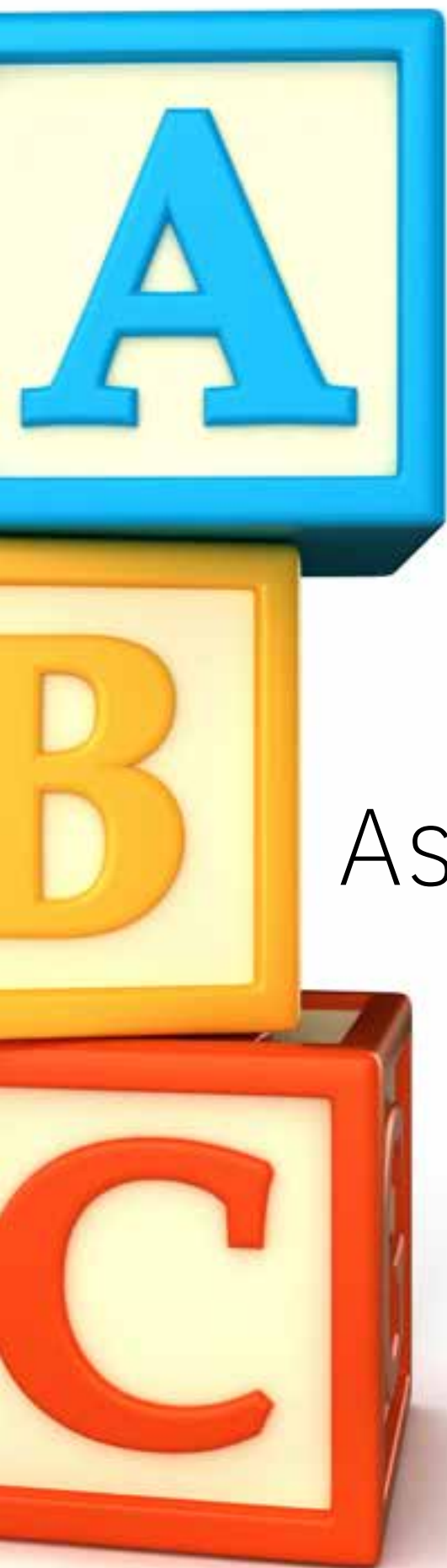
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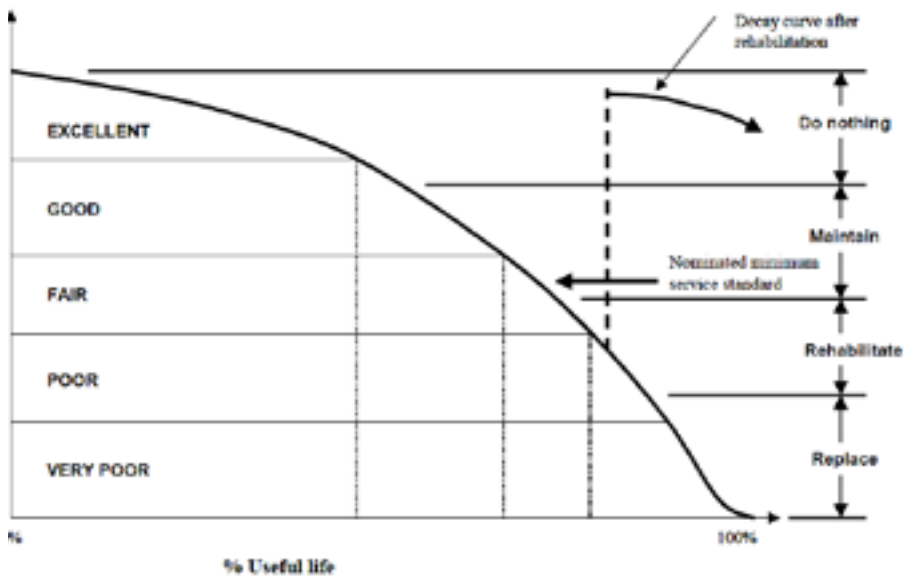
The ABCs of Asset Management

By JOHN TARANTINO
Vice-President, Marmak

Asset management is an active task that must be updated on a regular basis which reflects the priorities and expectations of the community.

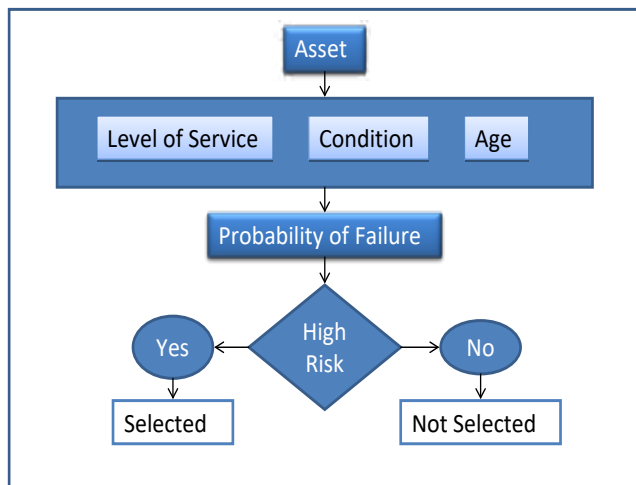
Annually, organizations acquire, dispose or replace and rehabilitate assets. Once an asset is either built or acquired, the remaining service life is what is being managed. New assets require maintenance strategies that will be used and the timing or condition at which those strategies will be applied. If the asset is nearing the end of its useful life, the municipality must plan for the replacement or reconstruction of the asset. While straight line depreciation is adequate to predict the probable failure point of some assets, the development of lifecycle curves improve the accuracy and provide an accurate Technical Level of Service.

As assets deteriorate over time there are consequences should assets fail. Not every asset presents the same failure risk, or is equally critical to the community. Critical assets are those assets that have a high risk of failing or have major consequences if they fail or are essential for the functioning of society and/or the economy. Therefore an advanced Asset Management plan includes a Risk Policy. Risk analysis utilizes Level of Service (LoS), Estimated Service Life (ESL) and condition inspections to determine the probability and consequence of failure.



The possible Risk Levels may consist of:

- **Very High Risk:** Maximum risk mitigation measures should be in place, together with recovery plans, and availability of critical action.
- **High Risk:** Maximum risk mitigation measures should be in place providing layers of deterrence, high probability of detection, and rapid effective response.
- **Moderate Risk:** Risk should be managed by the introduction of mitigation strategies and operational procedures.
- **Low Risk:** Minimal risk mitigation measures necessary. Risk should be managed through operational procedures.



At some point it is necessary to ensure that the services provided, do in fact reflect the community's priorities and expectations. Customer levels of service outline the overall quality, performance, availability and safety of the service provided. Technical levels of service outline the operating, maintenance, rehabilitation, renewal and upgrade activities expected to occur. Level of Service is a balance between user expectations for overall quality, performance, and availability

with a cost that is affordable. Technical levels of service must be considered that also look at the risk associated with providing the service.

Sound financial decisions and developing an effective long-term funding strategy are critical to the implementation of an asset management strategy. An accurate financial forecast can help prioritize required changes for long-term funding strategy.

Barriers from realizing the full benefits of asset management planning include;

• **Insufficient human resources:**

Municipalities have insufficient staff resources to handle the work required to develop asset management plans. This problem is most acute in smaller

municipalities where qualified staff can be hard to find, even when financial resources are available.

- **Lack of a common asset management model:** While provincial directives specify a common outline for asset management plans, there is no accompanying clear guidelines to help municipalities during the development of their plans. As a result, many municipalities reflexively end up using the "what seemed logical" approach.

- **Inappropriate use of technology:** Currently, municipalities use a variety of methods for data collection – each with varying degrees of reliability – and different data standards for representing data. This approach creates long term challenges when establishing comparison measurements.

Where a municipality is able to overcome these barriers the benefits of a living asset management plan will offer:

- Enhanced customer satisfaction
- Appropriate Level of Service
- Improved financial planning
- Accurate maintenance and replacement of key infrastructure assets
- Improved risk management strategies
- Improved health, safety and environmental performance
- Improved corporate stewardship 🌱



BUILDING THE FUTURE

Rural Infrastructure & Regional Economic Development

In 2016, 6 million people called rural and/or small-town places in Canada home – translating to roughly 17% of the national population and offering an interesting counterpoint to the myth the rural communities are disappearing. The size and importance of Canada's rural economies are so critical that several researchers have argued that the global economy cannot afford to ignore them. These areas have long been sites of natural resource industries fuelling the Canadian economy, through sectors such as timber, fisheries, mining, and agriculture. As a result, rural communities produce a GDP contribution far greater than their share of the population. Despite this reality, investments into rural communities have historically been viewed as subsidies, whether they are provided to communities or businesses. Further, Canada's economic history is largely defined by the extraction and exploitation of these resources – so while rural regions represent sources of wealth, too often this wealth is moved out of the region to urban centres. Where an investment approach has been adopted with regard to infrastructure, as most recently illustrated by the Economic Action Plan in response to the

2008 economic recession, these programs often fail to address the key priorities or the day-to-day challenges for rural communities. Further, this type of rural policy and investment programming means that growth and economic development are geographically uneven. Urban population growth still far exceeds rural population growth and rural economies continue to be more intensive, extractive, seasonal, and subject to associated labour shortages and labour force replacement issues. Organizations like the Canadian Rural Revitalization Foundation and researchers from across Canada continue to argue that new strategies, policies, and partnerships are required to facilitate rural community development and sustainability – particularly with regard to infrastructure.

While communities of all sizes must balance fiscal realities, changing economies, aging infrastructure, changing demographics, and a challenging climate as they work to manage their core infrastructure assets and accommodate and/or address new infrastructure and service needs, rural communities face different challenges than their urban



RE

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counter parts. Rural communities are at a critical turning point following decades of dramatic change: the out-migration of young people and skilled labour, economic restructuring, and an uneven investment in infrastructure (often focused on moving resources out of peripheral regions) – the combination of which appears to have left the futures of rural communities up to decisions by external actors to invest external funding. Additionally, rural communities experience varying capacities to respond to infrastructure pressures and opportunities. In particular, as climate change and technological breakthroughs challenge traditional means of managing infrastructure, rural communities must have the financial, technical, and human resources to adequately plan for a future that may look very different from their past. Rural communities’ capacity to meaningfully manage infrastructure in this context has a critical impact on their ability to address these changes in ways that meet their current and future needs, influencing the outcomes of both immediate and long-term economic development efforts.

In its 2016 report ‘Unleashing Productivity Through Infrastructure,’ the Government of Canada’s Advisory Council on Growth emphasized that “the opportunity to invest in infrastructure has never been greater.” Investment in productivity-enhancing infrastructure is perhaps the most

powerful and most critical mechanism for supporting immediate and long-term economic development, innovation, and community resilience. To facilitate these investments, rural communities require adaptive, nuanced infrastructure investment frameworks to address the realities of rural development across all jurisdictions. Understanding the capacity- and regulatory-related pressures and opportunities facing varying types of rural communities is critical for developing effective policy and programming that adapts to the size, type, and context of individual communities, and ultimately, for supporting the current and future economic vitality of rural Ontario.



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To address these critical issues, a cross-Canada research team is working with the Ontario Good Roads Association to investigate the capacities of rural Ontario communities to respond to infrastructure pressures and opportunities and how that capacity (or lack thereof) affects a community's current and future long-term economic development. This research initiative is funded by the Ontario Ministry of Agriculture, Food and Rural Affairs under the University of Guelph-OMAFRA Research Program and aims to provide three key benefits to rural Ontario communities:

- Enhanced understanding of the diversity and varying levels of rural community capacities to address and manage infrastructure;
- Improved and more responsive public policy that supports the needs and goals of rural communities in Ontario; and
- Enhanced rural infrastructure development programming that responds to the needs and goals of rural communities in Ontario.

This spring, the *Building the Future* research team will begin inviting municipalities in rural Ontario to respond to a survey and participate in workshops about the critical infrastructure challenges and opportunities faced by rural communities. The survey and workshops will offer opportunities for both elected decision makers and senior administrative staff to share their most pressing concerns, best practices, and ideas about ideal policy and programming supports for helping them implement strong, future-oriented infrastructure and economic development plans. **Participating in the survey and workshops offers rural community leaders the opportunity to provide input that will directly influence policy recommendations that will be shared with the Government of Ontario.** We encourage you to visit www.ruraldev.ca/infrastructure to stay informed as this project develops over the coming months and to watch for an invitation to participate in a survey or workshop and ensure your voice is heard during the research process.

To learn more about how you can participate in this project, please contact: Ryan Gibson at gibsonr@uoguelph.ca or Ashleigh Weeden at weedens@uoguelph.ca 

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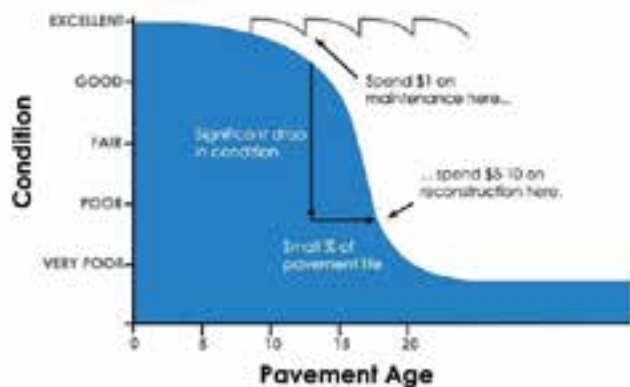


Pavement Management for the 21st Century

By COADY CAMERON MScE, PEng
CEO and Founder, TotalPave

Managing roads is difficult. Budgets are shrinking and there's constant public demand for high quality roads. Objective data that allows engineers to make informed paving decisions exists, but getting it requires expensive equipment and expertise. The problem is not that municipal engineers don't know how to maintain the roads and streets in their network, it's that they simply cannot afford the services that provide objective road-condition data that allows them to make the important paving decisions.

When it comes to Pavement Management, timing matters. Roads do not wear down at a gradual rate, there is a critical point in the road's life cycle where there's a steep drop-off in condition. Fixing a road before that drop-off is the difference between low-cost minor maintenance and costly major reconstruction. Many municipalities face large infrastructure deficits today, due to the deferring of street maintenance, using a "worst first" paving model.



TotalPave offers a fresh look at the outdated technology currently servicing the pavement management space today. By leveraging modern smartphone technology, TotalPave has developed a product that drastically reduces the cost of obtaining objective road condition data. This data in turn, allows municipalities to make informed pavement management decisions, thus lower the overall lifecycle costs of roads in their network

The largest cities around the world are able to spend substantial amounts of money for their own data-collection vans or pay high consulting fees on a regular basis. However, smaller municipalities can only afford to hire professionals every few years, if at all. As a result, those smaller municipalities must rely on less-objective data to fill this void, running the risk of missing a critical maintenance window. TotalPave provides this same objective road condition data, at 15-to-20 times less than the expensive data-collection vans and consultants.

TotalPave allows even the smallest municipalities the opportunity to gain access to valuable data that they previously could not afford, while allowing larger jurisdictions the chance to bolster their pre-existing pavement management systems. TotalPave is also the perfect tool for municipalities that don't currently collect data or are fairly new to asset management. Going from not collecting data at all, to collecting objective data, is a huge jump in terms of asset management. Road centrelines and attributes from a municipality's GIS can be inputted into the system, for simple transition of data from one system to the other. If a municipality does not have a current GIS, TotalPave also offers services to create one from scratch to help jump start their asset management inventory.

The specific data collected using TotalPave is called: Pavement Condition Index (PCI) and International Roughness Index (IRI).



Collecting IRI is simple, all that is required is a road-worthy vehicle, a rigid phone mount, and the TotalPave IRI application downloaded via the Google Play Store or Apple App Store. The application is completely automated, anyone can simply mount the phone, press the big green button, and collect as much objective data as they want, anytime, anywhere.

TotalPave uses accelerometer data from the phone's micro-movements, pairing it with GPS data to produce the objective International Roughness Index calculation. The research behind TotalPave was conducted at the University of New Brunswick, thoroughly testing different types of vehicles, speeds, mounting arrangements, and phones, under controlled conditions. Results were compared to a Class 1 Profiler, with no significant IRI differences found.

The PCI application is used in the field, where a surveyor enters standard road distresses using straightforward inputs on the application. Once you have surveyed your road section, TotalPave automatically calculates a PCI value, live in the field, based on ASTM Standards. The ASTM standard enables random sampling, which allows you to achieve a valid representation of the segment without the need to evaluate the entire section, saving time and ensuring objectivity of the data. The sampling method can be customized to a municipality's preference.

Anyone can be trained to use TotalPave's applications. This allows municipalities to collect data in-house with interns, rather than spending money on outside consultants or taking up time of salaried staff engineers.

All of the PCI and IRI data that the user collects is automatically uploaded to the cloud and posted to their personalized web portal. The comprehensive data collected is visually displayed on a map of the jurisdiction, coloured by quality. A Reports Dashboard is available through the cloud-based web portal as well as the ability to simply export data to Excel or GIS, for further analysis.

TotalPave is also introducing a new application, "TotalPave Tracker". Municipalities are able to track all infrastructure issues - sidewalk condition, trees, park benches - just about anything you can imagine with TotalPave Tracker. Simply choose a location, snap a picture, and input a description. All items are automatically mapped and made available on the TotalPave Web Portal.

TotalPave allows municipalities the ability to perform road assessments more frequently, at a lesser cost, with objective data, thus allowing municipalities to make better-informed investments in maintenance to avoid costly reconstruction. If you are interested in collecting objective road condition data with your smartphone, TotalPave provides free demos of their technology via webinar. To learn more about TotalPave, just visit their webpage at totalpave.com. 🌐

Good Practices for **WINTER MAINTENANCE IN SALT VULNERABLE AREAS**



By JOAN PATCH

Source Water Protection Communications Specialist,
Conservation Ontario



Ontario Good Roads Association (OGRA) is pleased to see the release of the Good Practices for Winter Maintenance in Salt Vulnerable Areas. This guidance was developed by a multi-stakeholder group chaired by the Ontario Good Roads Association and Conservation Ontario, and comprised of members from municipalities, conservation authorities, as well as provincial and federal governments.

Road salt is commonly used for maintaining road safety during winter, and also to suppress dust on unpaved roads. Excess road salt impacts watershed health, affecting our surface and groundwater resources including drinking water sources.

“We are very pleased with the extensive collaboration between OGRA member municipalities and the Conservation Ontario, aimed at recognizing the mandates to road vehicles’ safety alongside environmental considerations. All team members have done a great job and finding the right balance.” Joe

Tiernay, OGRA Executive Director said. OGRA represents the interest of over 400 municipalities in the province of Ontario on various topics, including winter operations.

The good practices guidance is a living document that currently focusses on protecting municipal drinking water sources that have high levels of sodium or chloride. These practices can be considered by municipalities in salt management plans, by contractors who manage parking lots, and for risk management plans developed under the *Clean Water Act*.

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When the Snow Falls

By: Laura Stervoski, OGRA

Good Road Salt Management Practices



Identifying a Salt Vulnerable Area:

A salt vulnerable area is an area that is sensitive to road salts. This includes provincial wetlands next to highways, areas draining into vulnerable groundwater recharge areas, and areas draining into drinking water where road salts could potentially raise chloride concentration.

Value Added Meteorological Service



Road Weather Information System

Stations that allow you to monitor pavement and weather conditions in your area.



Conduct an annual review of your Salt Management Plan. It may also be beneficial to compare notes with neighbouring and/or similar municipalities.

Brine Tank

should be stored on a asphalt or concrete pad with sides high enough to contain the contents in case of a spill or leak.

Receive customized weather reports four times a day that are specific to your area.



WEATHER MONITORING

Brine

Used as a pre-wetting agent and to pretreat roads to prevent frost and black ice. This enables plows to reach bare pavement, which improves safety.



Computerized Spreader Controllers

Allows for more control over the volume of salt being applied.



The most effective method for snow removal remains plows and/or a shovel.

Good Management Practices

REVIEW PLAN

EQUIPMENT

PARKING LOTS

STORAGE

PERSONNEL

30-80%

of the salt applied to urban watersheds could instead be applied to parking lots.

Road Salt

should be stored indoors or on an asphalt or a concrete pad. Make sure to keep it dry and contained.



Assign a Winter Maintenance Specialist

- Minimum of three years in road operations and winter maintenance, and has successfully completed winter maintenance training E.g. OGRA's Snow School.
- Understands the Municipal Maintenance Standards ON Reg. 239/02, as well as the salt management plan for their municipality.

OGRA 125 - Past | Present | Future



OGRA celebrates being 125 years young this year with no sign of slowing down in our old age. From our early beginnings in the late 1800s when the state of the art in transportation was a horse and buggy to now where horseless carriages are on the verge of driving themselves, we've seen a lot of changes and have a lot of experience under our belt. If this past year is any indication of how strong OGRA is let me point out a few benchmarks.

First and foremost, we finished the year with a record surplus of close to \$300,000. A lot of that can be attributed to a resurgence in our education programs. We saw a measurable drop for a number of years, but we have been able to turn that around with some very effective marketing and communication efforts. We were also able to recruit some new top-notch volunteers to fill some instructor spots that opened up and redesigned a number of programs to ensure that they remain relevant in today's fast changing environment. Of course, none of our success in education would be possible without the hundreds (275 to be exact) of volunteers from our municipal and corporate membership that take the time out of their busy lives to give back by teaching our more than 65 courses.

Never one to shy away from a challenge, OGRA applied for and received funding from the Federation of Canadian Municipalities (FCM) to develop and deliver a series of workshops on asset management directed at both elected and appointed officials. With 2018 being an election year, it was probably not the best timing to be offering a course for elected officials in the last year of a mandate as most were in "election mode" and had more important things

on their minds. Still, in all, the courses were successful and FCM was very pleased with our efforts.

The change of government at Queen's Park also affected our policy initiatives. After giving the new government some time to get settled we ramped up our advocacy and continued to press the government on important municipal issues like joint and several liability, asset management, excess soils, and the Construction Act. Our annual Advocacy Day at Queen's Park was particularly encouraging as we received a lot of support for the issues that we presented.

Finally, our member services continue to be well received and we are very pleased with the number of municipalities that are using the Winter Web App and have subscribed to our weather tracker add-on. We continue to build out other modules to the Winter Web App so that our members can access affordable solutions to every day problems.

Yes, OGRA is turning 125 this year but we are just getting going and quite frankly, I don't think we look a day over 102. 🍷

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