



1943-2018

MHCA™

MANITOBA HEAVY CONSTRUCTION ASSOCIATION

75 YEARS OF INNOVATION



PHOTO COURTESY OF CITY OF WINNIPEG ARCHIVES



PHOTO COURTESY OF MANITOBA NATURAL RESOURCES - SERIES III



View online at winnipegfreepress.com/publications

Winnipeg Free Press



Taking Care of Your Fleets In Motion

1-800-263-1760
www.groeneveld-lubrication-solutions.com





**SPEC IT, ORDER IT,
PREP IT, OUTFIT IT,
AND DELIVER IT
RIGHT TO YOU.**



Birchwood Ford will ensure that you make the most beneficial choice for your business... and we can do it all without you ever leaving your office!



Brian Penner
Fleet Manager
brian.penner@birchwood.ca
Tel: 204-654-8366



Tara Vasas
Service Fleet Manager
tara.vasas@birchwood.ca
Tel: 204-654-8221



Bruce Paton
Fleet Consultant
bruce.paton@birchwood.ca
Tel: 204-654-8359

Birchwood
FORD ON REGENT

1300 Regent Ave. W.
birchwoodford.ca

THE BALLOT BOX QUESTION FOR FALL MUNICIPAL ELECTIONS

BY CHRIS LORENC



Chris Lorenc is president of the Manitoba Heavy Construction Association
mhca.mb.ca

What's a mayor to do? As we sit, weeks away from the spring thaw that will trigger construction season, Winnipeg does not know if it will have funding to invest in regional roads at the top of the list for repair. Among these are Portage Avenue, Pembina Highway and Main Street, each needing significant work.

Moreover, what is going to happen to the next leg of the southwest rapid transit route? We've constructed the leg to speed buses from Queen Elizabeth Way to Jubilee Avenue. But the 'corridor' stops there, a stub of the bigger idea, which is to move commuters quickly to and from south Winnipeg.

Rapid transit is the kind of amenity almost universally available in modern, competitive cities. The city has made the decision to proceed. So why are we still in the funding weeds on this?

Winnipeggers should have been dismayed, yet again, to see Mayor Brian Bowman at the steps of the legislature, hat in hand, asking the province to flow the funds for the southwest transit corridor's Phase II, along with almost \$55 million to honour funding agreements made in 2017 for infrastructure shared-costs.

And he was in Ottawa last month, seeking federal help to get the province to approve the flow of dollars from the New Building Canada Fund for Winnipeg's regional road budget. The federal budget, released a week after his visit,

confirmed protracted delays — years, not weeks — are expected before infrastructure funds flow to their intended targets.

So, what is the mayor to do? What is any mayor or reeve in Manitoba or Canada, to do?

There is a painfully common theme to these stories.

No municipality can afford on its own to write large-scale projects into their capital budgets. So Winnipeg, like every municipality, is forced to await the nod from higher levels of government, which may decide to re-negotiate agreements their predecessors signed, or change direction based on fiscal realities they face.

Fair enough, but it's no way to plan strategically for critical investment in transportation infrastructure — systems that move people to jobs and goods to market. These are the arteries of trade that keep the heart of the economy pumping.

Municipal governments, being the legislated creatures of provincial governments, are at the mercy of provincial and federal priorities. Funding transfers from higher levels of governments, which help sustain the budgets of basic services, can and do change. These sometimes unreliable funding relationships were created at the turn of the century; they do not meet the demands upon today's cities and towns.

Municipalities rely too heavily on regressive property taxation to raise revenues, and the results are insufficient to the demands. Progressive taxation would see municipalities raising more revenues from consumption or

income taxes, which grow as the economy does.

Relying on current funding and fiscal arrangements wreaks havoc with long-range service planning, including infrastructure investments, as illustrated by Winnipeg's funding relationship with Manitoba and the delayed flow of dollars from the federal New Building Canada Fund (which also messes with provincial planning).

It's time we re-thought municipal taxation powers, so they can explore new sources of revenue, to alleviate their dependence on property taxation and the political agendas of other governments. Not a blank cheque, but a coherent, transparent, accountable series of revenue streams that rebalance roles, responsibilities and relationships among the government levels, mindful that there is only one taxpayer.

So what, indeed, is a mayor (or a reeve) to do? Good question.

There's no better time than now to explore solutions.

As we move into municipal elections this fall, Manitobans need to hear what incumbents and aspiring candidates would do to engage with the public and senior levels of government to re-visit and re-engineer the wonky relationship and rework the roles and responsibilities between them.

Manitobans should make this the ballot box question for the fall elections. And that's what candidates for the office of mayor and reeve should do, too.



Specializing in

- Asphalt Paving/Concrete Paving
- Site Development
- Sewer & Water Services
- Diamond Grinding



COR Certified



Gold Seal Employer



GOLD SEAL EMPLOYER
EMPLOYEUR SCAU D'OR



PREMIER OF MANITOBA

Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

A MESSAGE FROM THE PREMIER

On behalf of all Manitobans, I extend my warmest congratulations to the Manitoba Heavy Construction Association (MHCA) on its 75th anniversary.

A lot has changed in our province over the past 75 years, and members of the MHCA have played a key role in much of that change. Through participation in major infrastructure projects that have enhanced our transportation capacity, improved our access to clean drinking water, treated waste and protected us from flooding, the MHCA and its members have improved the lives of Manitobans and laid the foundation for our province to grow and prosper.

As a province that relies upon exports in order to drive our economy, the importance of well-built, durable infrastructure that is capable of reliably conveying our goods and products to export markets is critical. Manitoba's central location within North America, and its well-developed transportation network, positions us to take advantage of the logistics consolidation that is presently occurring throughout the economy. We would not be in such a strong position if not for the quality of the infrastructure work done by MHCA members over the past 75 years.

Our government is committed to ongoing, stable infrastructure renewal and as we look to the future, we know that we can rely upon members of the Manitoba Heavy Construction Association to continue to create the conditions for future growth and prosperity throughout our province.

Congratulations once again to the MHCA on such an important milestone. I join all Manitobans in wishing your members the very best in the years to come.

Brian W. Pallister

The Honourable Brian Pallister

777 Erin St. Winnipeg, MB R3G 2W2
 Phone: 204-783-7091 | Fax: 204-786-3106
www.mapleleafconstruction.mb.ca

MANITOBA NEEDS AN ECONOMIC GROWTH AGENDA

BY DON LEITCH



Across the country, provinces are grappling with their budgets. Some provinces are in deficit and a few are not. All realize a sound, stable fiscal framework is the starting point for a prosperous growing economy. In Manitoba some progress is being made on managing expenses. However, the flip side of the coin is implementing policies and programs to incent investment, grow the economy and enable Manitobans to build that more prosperous future for themselves, their families and their communities. Regrettably, less progress has been made on these issues.

The Business Council of Manitoba had submitted, in time for last week's provincial budget, some recommendations. The council noted that Manitoba continues to be in a precarious fiscal situation — the provincial debt is so large that even with the unprecedented low interest rates that have prevailed for several years, the entire annual deficit is attributable solely to interest payments on the provincial debt. In other words, we are borrowing every nickel required to pay interest to the bondholders of Manitoba's debt. That recipe leads only to a continually escalating public debt load. It is impossible to forecast when the tipping point will be reached, but an ever-escalating debt in a moderately growing economy leads only to more pressure to eliminate or reduce services and postpone investments. This is troublesome.

Adding to our debt worries is the mounting debt at Manitoba Hydro; a burden that is carried either by Hydro ratepayers, or Manitoba taxpayers.

Continuing the usual deficit-reduction practice of cutting services and postponing investments to free up cash to pay the interest will not get us to where we need to be.

Government requires more revenue — without raising taxes. That is only achievable with a growing economy in which there are more employment opportunities, in all regions of the province, and rising incomes stemming from more business activity and investment. A growing economy yields more government revenue.

So, what do we need to ensure sustained economic growth, and how should the Manitoba government pursue that economic growth? First, ensure we have a competitive economic climate. A competitive jurisdiction is more than low taxes. It is a province with a regulatory environment conducive to private-sector investment, coupled with public investment in the world-class infrastructure required to move people and goods within and between our communities, and investments enabling Manitobans to be educated, trained and prepared to compete internationally. A successful economic framework enables access to capital and promotes innovation.

Another troubling issue is the federally

mandated carbon tax with its unequal impacts across the country. When implemented as designed it will further compromise the competitive position of exporters.

Our manufacturers will be disadvantaged relative to competitors in non-carbon tax jurisdictions.

In the Business Council's pre-budget submission, all of these were highlighted as needing attention immediately. Without government investment decisions and in the absence of an economic framework that both government and business endorse, long-term growth and prosperity will continue to be a challenge we have not met.

Governing has always been difficult. It is even tougher when international uncertainty abounds as it does today. But as a former premier said, 'Making difficult decisions is the reward for winning an election.'

Manitoba needs the Pallister government to make those decisions now. We need our government to invest in our infrastructure, while working to create a competitive economic environment, enabling access to capital for businesses — established and new — and to take advantage of emerging trade opportunities, and to ensure Manitobans are educated and trained to compete and succeed.

Don Leitch is president of the Business Council of Manitoba.

SUPPORTING MANITOBA'S HEAVY CONSTRUCTION INDUSTRY.

The heavy construction industry plays an integral role in strengthening Manitoba's economic health and growth. It helps build the infrastructure that benefits our industry, it's workers and families.

Merit Manitoba is proud to support the same goals. By pooling together the largest group of open shop contractor companies across the province and the country, we can offer the most competitive contractor specific coverage in the industry, passing on plenty of savings to you.





BILLIONS IN INFRASTRUCTURE FUNDING DEALS FOR MANITOBA TO COME

Infrastructure investments are key to the success of our country because they form the foundation for strong communities. From large-scale construction projects to smaller-scale projects, infrastructure has the power to revitalize, strengthen and improve the everyday lives of all Canadians.

Our government is focused on making investments that build strong foundations for economic growth and create middle-class jobs, and the Manitoba Heavy Construction Association is an important partner in those efforts. We want to develop inclusive communities where everyone has access to the opportunities they need to thrive, from seniors and Indigenous Canadians, to new immigrants and those living in rural and northern communities.

The Government of Canada's *Investing in Canada* infrastructure plan is providing more than \$180 billion over 12 years to create long-term growth and

build inclusive communities for the 21st century. Our plan focuses on five areas that communities across the country have identified as priorities: Public transit; green infrastructure; social infrastructure; transportation infrastructure that supports trade; and rural and northern communities.

I am proud of the progress we have made over the last two years. In Manitoba alone, we have approved 158 projects with a federal investment of more than \$318 million. These funds are building roads and bridges across the province; renovating community centres and recreation facilities; and upgrading water and wastewater infrastructure to help meet the real needs of communities. Looking forward, we are currently negotiating a long-term funding agreement that will invest more than \$2.3 billion toward infrastructure projects in Manitoba. These negotiations will ensure that Manitoba's priorities are reflected within the national infrastructure program.

While we've already made good progress on our plan,

our government has also committed to finding new and innovative ways to invest in our communities. That is why we have launched the new Canada Infrastructure Bank, which will invest \$35 billion in projects that have revenue-generating potential and are in the public interest. From green energy transmission to trade and transportation and beyond, the Bank will make public dollars go farther and build more infrastructure that our communities need.

The guiding principle of our infrastructure plan has been — and will continue to be — trusting that communities know best their priorities and our government is proud to be working closely with our partners throughout Manitoba to support them as we work together to build even stronger, more sustainable, and inclusive communities.

Honourable Jim Carr
Member of Parliament
Winnipeg South Centre



BUILDING A BETTER WINNIPEG

In honour of the Manitoba Heavy Construction Association's 75th anniversary, I am pleased to have this opportunity to discuss the current state of Winnipeg's infrastructure, and the importance of long-term infrastructure planning for our city.

Winnipeg is a growing city with growing infrastructure needs. We are home to 749,500 people and we are experiencing strong population growth that has not been seen for decades.

Our city's population is expected to grow by over 8,200 people each year over the next 25 years.

Planning for this level of growth requires a long-term infrastructure plan to ensure that we make the right investments at the right time, in the right way.

Recently, the City of Winnipeg released its 2018 State of the Infrastructure Report and City Asset Management Plan. These industry-leading documents provide the most comprehensive information on the city's infrastructure ever assembled.

These reports present two key findings. First, the city has made considerable progress in chipping away at our infrastructure deficit in recent years. Second, we have much more work to do to make the necessary

infrastructure investments to support our growing city.

The last reported infrastructure deficit for Winnipeg in 2009 was \$7 billion. In 2018 dollars, this equates to \$9.9 billion and provides a more accurate comparison to the 2018 deficit, which is estimated to be \$6.9 billion, a \$3-billion reduction.

The progress we have made in reducing our infrastructure deficit is a direct result of a strong, multi-year capital investment blueprint that we update every year in the budget process.

A key part of this investment blueprint is the dedicated annual property tax increase of 1% for regional road renewal and 1% for local road renewal. Through these dedicated annual tax increases we have managed to make record investments in road renewals over the last several years, culminating with an investment \$116 million in 2018, the largest investment in roads in the history of our city.

The record road investments approved by our current council are producing results. The City of Winnipeg's Community Trends & Performance Report indicates the average condition of both regional and local roads is improving, and residents are increasingly satisfied. In 2009, the road deficit was estimated to be \$3.3 billion, representing 47% of our city's overall infrastructure deficit. Today, the City Asset

Management Plan shows the deficit in the road network has decreased to \$1.9 billion, representing 28% of the city's overall deficit.

But we have more work to do. As the state of the infrastructure report shows, we still have an unfunded infrastructure deficit of \$6.9 billion over the next 10 years, and we cannot rely on property taxes alone to address this infrastructure deficit.

This is why one year ago our council made the difficult decision to introduce impact fees to help pay the cost of new growth-related infrastructure. We must also maximize our access to federal infrastructure dollars, starting with our long-standing application for our accelerated regional roads program. We must continue to collaborate with the provincial government for a new, long-term growth oriented funding model. And we must continue to listen to industry partners on ways to improve efficiency, as well as researchers on ways to build better and smarter.

I thank the MHCA and its members for all of your advice and hard work over the years to help us build a better Winnipeg. Congratulations on 75 years of success!

Brian Bowman
Mayor of Winnipeg



Dig safe

Have underground lines marked.

If you're planning any project that involves digging, send a line locate request at least three working days before you plan to start. Manitoba Hydro's underground lines will be marked free of charge.

For your **SAFETY**

ClickBefore
YouDigMB.com

or call 1-800-940-3447

Available in accessible formats upon request.

Manitoba
Hydro



WINNIPEG CHAMBER OF COMMERCE PRESIDENT LOREN REMILLARD AND CANADIAN GLOBAL CITIES COUNCIL COLLEAGUES MEET WITH PRIME MINISTER JUSTIN TRUDEAU. PHOTO COURTESY OF THE WINNIPEG CHAMBER OF COMMERCE

CANADA NEEDS A NATIONAL URBAN INFRASTRUCTURE STRATEGY



BY LOREN REMILLARD

common measure to judge whether that spending was successful. Data is sparse, and poor data leads to poor decision making. With no indication of where shortfalls are, governments have little incentive to change their approach to infrastructure.

Below the broad national level, the strategy calls for city-regional agreements with clear goals and targets. These more localized agreements would spell out the city-regions' priorities, and showcase where private-public partnerships could best be utilized. Longer-term contractual agreements would then be developed to deliver on those local priorities. This would mean funding the regional plans, not specific projects. It would allow for greater flexibility and speed up construction times.

Why does this matter to Winnipeg and Manitoba?

As we have recently seen, local priorities are often drowned out by higher levels of government. The City of Winnipeg's \$182-million ask to the New Building Canada Fund to accelerate regional road repair lies in limbo. Not only is that an issue, but the current ask is again based on the outdated model of funding projects, not plans. Current federal infrastructure funding methods lack flexibility, and force governments to put forward projects that may not best meet local needs, but instead check off the right funding box.

Instead of going cap in hand to higher levels of government, a national strategy will set the goals and objectives for all governments to meet. While a national strategy must be federal-government driven, it will rely on provincial and

civic governments, as well as the private sector, to come together to set those local priorities under the national objectives. However, with no national objectives or priorities currently in place, federal infrastructure funding is too unfocused.

We need high-quality infrastructure in order to move people and goods in an efficient and safe manner. You can have the best tax rates and regulations in the world, but if you can't move your country's goods and citizens effectively, your economy isn't going anywhere fast. Improving the quality of our infrastructure will increase our country's competitiveness — an urgent issue as other countries move on their own urban policies.

Right now, Canada is one of only two OECD countries with a federal government system that doesn't have a national urban policy. Developing one will take time, effort and federal leadership. With billions more being spent on infrastructure, we need to ensure all that spending's effectiveness is clearly measured against strategic goals and objectives.

Loren Remillard is president and CEO of the Winnipeg Chamber of Commerce.

When Canada first became a country 150 years ago, only 20 per cent of the population lived in urban areas. We had only one city with more than 100,000 residents. Today, we have more than 50 municipalities with over 100,000 residents, and only 20 per cent of our population lives in rural areas. We have long been an urban country, yet we lack a national strategy that will help our urban centres grow, thrive and compete in the 21st century.

Last month, the Canadian Global Cities Council (CGCC) released Planning for an Urban Future: Our Call for a National Urban Strategy for Canada. The Winnipeg Chamber of Commerce is a founding member of the CGCC, which represents the eight largest urban chambers of commerce and boards of trade in Canada. These eight city-regions combined account for over half of Canada's GDP.

The report calls for the development of a national urban strategy. The cornerstone of that strategy will be the development of national urban infrastructure goals and objectives. It is imperative we measure progress against those goals by a clear set of metrics.

Federal infrastructure spending has increased by billions over the past several years, and yet we have no



Bayview Construction is celebrating 25 years of building and maintaining roadways, and we are proud of our record of delivering superior results to our clients.

Our success would not be possible without the drive, dedication and talent of our employees.

Thank you to everyone who has contributed to the achievement of this great milestone.

We look forward to the next 25 years!



MHCA 75 YEARS MILESTONES & ADVOCACY

1943
MHCA IS FOUNDED;
Manitoba and Saskatchewan
form Prairie Roadbuilders
Association

PHOTO COURTESY
OF MANITOBA
INFRASTRUCTURE



1945
F. Scott Fowler (Nelson
River Construction) named
**MHCA'S FIRST
CHAIRMAN**

1962
1968
1968
**RED RIVER FLOODWAY
OPENS,**
a 6-year project that moved
2.3 billion feet of earth



PHOTO
COURTESY OF
MANITOBA
ARCHIVES,
FRED ARDA



1989
**MHCA LAUNCHES WHAT
IS KNOWN NOW AS
WORKSAFELY™**

1995
National advocacy embraces
MHCA-championed triple
infrastructure policy approach:
national highways; municipal
infrastructure; and strategic
infrastructure investments

1998
Strategic Infrastructure
Reinvestment Policy Task Force,
co-chaired by MHCA President,
issues clarion call to address
Winnipeg's Infrastructure
investment deficit

2003
Gas Tax Accountability Act
passed, dedicating all
gasoline taxes to Manitoba's
highways system

2006
Sustained advocacy sees
highways capital program tripled

2009
**MHCA LEADS PUSH FOR
CENTREPORT CANADA,**
Canada's first and
North America's
largest inland port



2013
Winnipeg city council adopts
annual 1%+1% property tax
increases dedicated to local
and regional streets

2015
Capital Region councils
endorse coordinated,
sustainably funded regional
transportation system

2018
**GOV. OF MANITOBA
RECEIVES PROVINCIAL
PITS & QUARRIES
ADVISORY
COMMITTEE'S
RECOMMENDATIONS**
to resolve conflicts over
access to aggregate deposits



1950s
MHCA, via Prairie
Roadbuilders, renews
push for a national
highway

1962
**TRANS-CANADA
OPENS IN 1962**

1973
Prairie Roadbuilders
renamed Western Canada
Roadbuilders Association,
reflecting Alberta and
B.C. membership

1983
MHCA champions
launch of The Road &
Infrastructure Program
Canada, the basis of
Canadian Construction
Association's national
advocacy initiatives

1993
MHCA national advocacy
efforts help spur federal
launch of first national
Canada Infrastructure
Works Program

1997
Industry rallies to defend
Red River Valley in
Flood of the Century;
works 24/7 to build
42-kilometre Brunkild
Z-Dike

2000
MHCA assumes
management of and
begins publishing an
Equipment Rental Rates
Guide in its Directory

2004
MHCA successfully
defends industry against
'forced unionization'
push during floodway-
expansion project

2008
CCA embraces MHCA
call to link strategic
investment in
infrastructure and trade-
enabling infrastructure,
and economic growth

2011
Infrastructure Funding
Council, chaired by
MHCA President, calls for
long-term investment in
municipal infrastructure
and calls for a "new fiscal
deal" for municipalities

2014
Building Manitoba
Fund requires 1/7th of
PST be dedicated to
infrastructure

2016
MHCA leads CCA
Task Force initiative
resulting in Canada's first
Indigenous Engagement
Guide

2017
Gov. of Manitoba declares
public tenders will not
contain arbitrary reprisal
or local preference
clauses

**CONGRATULATIONS TO THE
MANITOBA HEAVY CONSTRUCTION ASSOCIATION
ON YOUR 75TH ANNIVERSARY!**

HON. ANDREW SCHEER
LEADER OF CANADA'S CONSERVATIVES

HON. CANDICE BERGEN MP
PORTAGE-LISGAR
204-857-6184
CANDICEBERGEN.CA

JAMES BEZAN MP
WISSEMAN-ANGUS-FASTNIA
204-785-6151
JAMESBEZAN.COM

TED FALK MP
PROVENCHEUR
204-326-9889
TEDFALK.CA

ROBERT SOPUCK MP
DUPRE-NEWMAN-ROBINSON
204-849-7000
ROBERTSOPUCK.CA

LEHIGH HANSON Canada Region affiliated companies

Lehigh Hanson
HEIDELBERGCEMENT Group

INLAND
HEIDELBERGCEMENT Group

LEHIGH
HEIDELBERGCEMENT Group

Inland Aggregates
204-334-6002

Inland Pipe
204-336-5006

Lehigh Cement
204-334-4300

Concrete. Cement. Aggregates. Concrete Pipe.
LehighHansonCanada.com

Building Relationships Through Infrastructure

MHCA
Certificate of Recognition
COR
WORKSAFELY MHCA

TRI-CORE

Tri-Core Projects is a diversified Contracting Firm specializing in:

- Bridges, Highways, Road Construction
- Large Diameter Tunnel Boring and Pipe Jacking
- Environmental Infrastructure and Site Remediation/Rehabilitation
- Shoreline Stabilization
- Waterline, Land drainage, and Wastewater Systems
- Drilled Caissons and Structurally Engineered Excavations
- Foundations

UNIT 5 - 1595 BROOKSIDE BLVD.
WINNIPEG, MB. R2R 1V6
PH: 204-942-1516 | F: 204-942-0693
www.tri-core.ca
info@tri-core.ca

Asphalt Paving

Concrete Paving

Base & Excavation

Sewer & Water

Parking Lots

Subdivision Development

Asphalt Supply

**BITUMINEX
PAVING LTD.**

MHCA
Certificate of Recognition
COR
WORKSAFELY MHCA

Phone: (204) 237.6253
Fax: (204) 237.5032

www.bituminex.com
info@bituminex.com



FROM HORSEPOWER TO THE DIGITAL AGE

BY GEOFF KIRBYSON

AT ONE TIME, SOME WORKERS ON ROADBUILDING CREWS GOT SPECIAL BONUSES — CARROTS AND SUGAR CUBES. BUT THEN, THEY WERE LITERALLY THE WORKHORSES OF THE INDUSTRY.

Growing up in Neepawa, Don Whitmore recalls seeing horses pulling heavy loads in construction.

“A worker would walk behind a horse with a two-handle scoop. He’d dip it into the ground and pull it up. And when it was full, the horse would drag it away. Today, you’d use a backhoe,” he says.

Whitmore, chair of Vector Construction and past-chair of the Manitoba Heavy Construction Association, says the industry has changed drastically even in his time, since the mid-1960s.

“In the earlier years, hydraulic machinery wasn’t nearly as prevalent and there were a lot more crawler machines than wheeled ones. You had to pull the cable if you wanted to lift something,” he says.

As with so many other things today, advancements in equipment and technology mean roads are built better, faster and more safely than ever before.

“What you would do in a day (with modern equipment) would take a month with horses,” says Barry Arnason, vice-president of Arnason Industries.

“I look at what we pound out in a day now compared to 30 or 40 years ago and there are huge differences in efficiencies.”

Worker accommodations have changed appreciably, too. When roads are built off the beaten path, workers often set up camps, and what was considered acceptable many years ago wouldn’t cut it today.

AS WITH SO MANY OTHER THINGS TODAY, ADVANCEMENTS IN EQUIPMENT AND TECHNOLOGY MEAN ROADS ARE BUILT BETTER, FASTER AND MORE SAFELY THAN EVER BEFORE.

“The old-timers used to stay in old shacks that weren’t fit for a dog. They were just happy to have a job. Now there’s excellent food and excellent accommodation,” he says.

Arnason remembers roads being built with dozers pulling a scraper on virgin ground.

“You’d take the black dirt off with a dozer and that dirt was used to landscape afterwards. You’d dig ditches for draining and the material from ditches would be excavated with a Cat and scraper,” he says.

“It was all flat prairie. You’d have dirt placed and compacted and then granular was placed and compacted. Then you’d put down the asphalt. It was pretty simplistic.”

The bigger the machinery, the greater the chance for an accident, but Whitmore says safety, efficiency and operator comfort have more than kept pace.

“A lot of machines are much more pleasant to operate than they used to be. There are air-conditioned cabs with hydraulic levers and all you’ve got to do is push a button with your finger. And there are ear muffs to make sure (the work site) isn’t as loud as a Winnipeg Jets game all day long,” he says.

“You don’t have to measure if the bottom of the trench is at the right slope because the computer tells you when it’s deep enough and wide enough.”

But just because equipment is more modern doesn’t mean Canadian roads are perfect. Don Eppler, another industry veteran from DWT Ventures, says infrastructure repair and new construction on roads, water and sewer lines have been a “catch-up” business for governments for many years.

“It’s a problem that still exists today and we’ll never catch up because the government feels they can always put off fixing things for another year,” he says.

Motorists who complain about the state of Canadian roadways are well within their rights, he says, pointing to Hwy 59, a secondary highway in North Dakota.

“It has 100 kilometres of nothing once you cross the border before you reach a town of any size worth mentioning. That highway is as good as our Hwy 75, if not better. But on the Canadian side from Ile-des-Chenes to the U.S. border it is a disgrace.”

Eppler spends four months each winter in northern California, a state with a population comparable to Canada’s. When their roads need fixing, the government simply tacks on a per-gallon gas tax.

“There’s not a word of complaint because they know that all of that gas tax increase goes to fixing roads and bridges and not into general funding.”

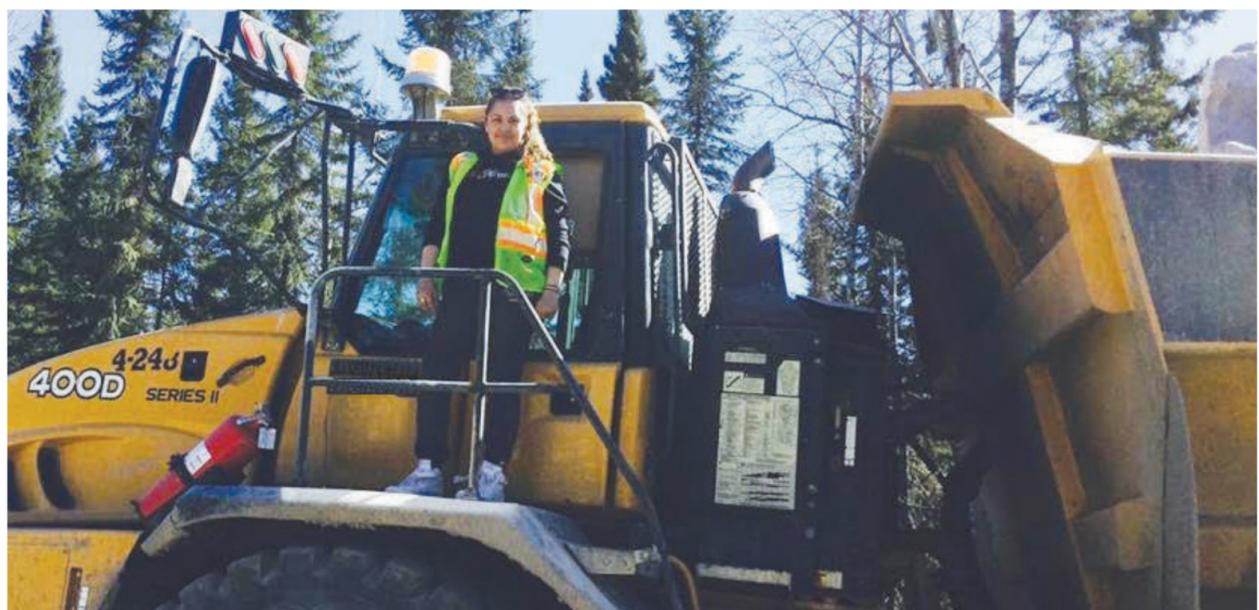


(FROM TOP TO BOTTOM)
 PHOTO COURTESY OF MANITOBA INFRASTRUCTURE
 PHOTO COURTESY OF MANITOBA ARCHIVES, L.B. FOOTE FONDS
 PHOTO COURTESY OF MANITOBA INFRASTRUCTURE
 PHOTO (BELOW) COURTESY OF CATERPILLAR





“THERE ARE WOMEN IN LEADERSHIP ROLES, MENTORSHIP ROLES AND IN ROLES OF RESPONSIBILITY. IT SETS A REALLY GOOD EXAMPLE AND A PRECEDENT FOR THOSE COMING UP THROUGH THE RANKS, OF WHAT THEY CAN ACHIEVE.” – NICOLE CHABOT



L. CHABOT ENTERPRISES LTD. VICE-PRESIDENT NICOLE CHABOT (TOP), HUGH MUNRO CONSTRUCTION LTD. PRESIDENT COLLEEN MUNRO (BOTTOM LEFT), HEAVY EQUIPMENT OPERATOR JESSICA BERENS (BOTTOM RIGHT)

WOMEN AT WORK

BY GEOFF KIRBYSON

TRADITIONALLY, HEAVY CONSTRUCTION HAS BEEN A MALE-DOMINATED FIELD, BUT WOMEN HAVE ALWAYS BEEN INVOLVED IN THE INDUSTRY, AND THEIR ROLES ARE EXPANDING.

Just ask the women who have taken up the heavy lifting.

Jessica Berens, 26, was one of a number of women trained as a heavy equipment operator at Berens River First Nation as part of a partnership with Hugh Munro Construction and the Manitoba Construction Sector Council (MCSC).

“I was originally supposed to work in the kitchen but one day, I was talking to the project manager without knowing who he was and I told him I wanted to do something different even if I had to start out on labour. I got a call two days later and all of a sudden I was rolling out geotextile for the roads, putting out signs and doing cleanup,” she says.

Berens went on to drive a rock truck, and spent eight months last year helping to build an all-weather road, earning a substantial paycheck and gaining valuable work experience.

“The day goes by fast. You’re driving and you constantly have to count your hauls, your pick-up time, the dump time and the hauls get longer and longer,” she says. “Just having that experience is really awesome. You can take it elsewhere.”

Eline Anderson was breaking new ground as an Indigenous woman working as a grader operator and truck driver starting in the 1970s.

“There were women in different areas when I started out, but not many in the pit area. I didn’t think the things I did, like driving a big truck in the ’70s, was unusual at all. I looked at a lot of women driving big equipment on the farm — they just weren’t recognized,” she says.

Now retired, Anderson is a mentor for job readiness with MCSC. She says young women need to be encouraged to explore all options.

“You can do whatever your heart desires; you’re not pigeon-holed into jobs anymore,” she says. “Jobs aren’t chosen for you because you’re male or female. You choose a job that’s appropriate for you.”

Hugh Munro Construction Ltd. president Colleen Munro and L. Chabot Enterprises Ltd. vice-president Nicole Chabot are among the few female executives in the industry and they’ve seen, and assisted in, its evolution.

Munro started getting her hands dirty right out of high school, doing everything from operating equipment to working in the office and sweeping the floor.

“I was raised in the family business. I was an only child, so my father didn’t have any boys to pick from,” she says with a laugh.

Her friends started careers in pretty much every other industry except heavy construction, largely because it was never suggested to them.

“It’s still not really brought up to young girls to think about construction or getting in the trades. It has to be brought into high schools but seen as an option earlier than that. It needs to be at trade fairs, and teachers and parents need to talk about it,” Munro says.

Chabot worked part-time at the third-generation family business through high school and university, doing clerical work, delivering parts and flagging. When she graduated from university, her mother, L. Chabot’s chief financial officer May Chabot, suggested she help develop the company’s safety program, a

job that gave her a good overview of every facet of the business.

She later worked in human resources and estimating, and her role evolved and grew in the organization. Chabot says often women in family construction businesses handle all the bookkeeping, HR and safety roles. As the industry’s focus on safety has grown, she says many women have entered the industry as safety officers.

“But what’s great to see in the past five or 10 years is there’s been a lot of engagement on the professional side, so in engineering, project management, you’re definitely seeing women who are entering the industry through those entry points.”

Chabot also sees more female applicants for labourer and equipment operator jobs, as a growing number of women see construction as a good career option.

“There are women in leadership roles, mentorship roles and in roles of responsibility. It sets a really good example and a precedent for those coming up through the ranks, of what they can achieve.”

Attracting more women to heavy construction jobs is a frequent topic for discussion. Chabot says she hasn’t seen one magic solution, but the industry is always evolving, and employers are more aware that all workers need to feel engaged, valued and respected.

“One thing that does help and that I have seen... are more progressive employers who have good policies and, in particular, policies as they relate to any type of harassment,” she says, adding that’s not just an issue for women.

CHABOT
www.chabotenterprises.ca



- Services**
- ✓ Aggregate Crushing
 - ✓ Excavation and Earthwork
 - ✓ Road Construction
 - ✓ Flood Protection, Riverbank and Shoreline Restoration
 - ✓ Site Remediation
 - ✓ Trucking and Heavy Equipment Rentals
 - ✓ Commercial Snow Removal
 - ✓ Site Preparation and Land Development



Are you seeking a career in heavy construction with a progressive, established employer?

Join Our Team

Class 1 Drivers, Heavy Mechanics, Heavy Equipment Operators

WINNIPEG | SELKIRK | GULL LAKE | HADASHVILLE

204.224.1565

www.chabotenterprises.ca



RISE OF THE MACHINE-CONTROL SYSTEMS

BY JARED STORY

GROUND BREAKING TECHNOLOGY IS EVOLVING AT A RAPID PACE.

FUELLED BY INNOVATION

Modern earthmoving machines produce far fewer emissions, but fossil fuel hasn't gone the way of the dinosaurs just yet.

Greg McKee, operations manager at SMS Equipment, says advanced emission control technology has made running heavy construction equipment much cleaner, but it still relies on petroleum.

"It's to the point where if you ran today's diesel engine in a high-pollution city, the air coming out the exhaust would be cleaner than the air going into the intake. It's that good," McKee says.

"As we've gone down the path of exhaust emission restrictions and improvements, the achievements have been miraculous, but we have not yet achieved better fuel economy. The technology required to give you that lower emission consumes horsepower, it consumes energy, and it requires more fuel."

It's cleaner-burning, but still burning. However, steps have been taken to reduce fuel consumption, including the addition of anti-idling technology to heavy construction equipment.

McKee says hybrid petroleum-electric earthmovers are also available; they just haven't yet gained traction.

"Most manufacturers offer a hybrid option. That is out there, but they are very expensive. And the payback is very long on the fuel savings," he says.

While hybrid construction equipment isn't commonplace in Manitoba, McKee says you might see it in special circumstances.

"You might have a politically sensitive project and you want to bring in some technology that makes it a little greener. That's where you'll see it," he says.

As for fully electric heavy construction equipment, McKee says we're not there yet, but it's just a matter of time. In fact, it already exists in another closely related industry his company supplies.

"Some mine sites have equipment that is electrically powered," he says. "It plugs into the Hydro grid. That's been out there for over 10 years. There's a huge savings, but the infrastructure to put in that kind of an electrical support system is huge and not feasible for mobile construction sites."

The transient nature of heavy construction is also delaying use of full-on automation in the industry, although remote-controlled machinery is used in mining.

"They're controlled from a central monitoring location. No operators," he says. "But again, a mining application is not a transient site. On a mine site you can control most of the variables."

McKee's short-term forecast for earthmoving machines is grounded in current reality, but he can see a day where automated, electric heavy construction equipment is a viable option.

"Just like anything else, the technology will continue to evolve and at some point in time I believe we'll be there."

ABOVE: A DRONE AT WORK AND A 3D IMAGE OF A QUARRY (INSET). BELOW: A SURVEYOR USES A SATELLITE-BASED POSITIONING SYSTEM. PHOTOS COURTESY OF WANLESS GEO-POINT SOLUTIONS

Since GPS technology was first introduced as a guidance system in the late-1990s, advancements in machine-control systems have helped heavy construction companies make great strides in efficiency and precision.

Darren Wanless, president of Wanless Geo-Point Solutions Inc., is a surveyor who specializes in machine-control services and support, as well as such cutting-edge technologies as aerial drone surveying and light detection and ranging (LiDAR).

"Projects can be built faster, more accurately and under budget," Wanless says. "Government projects now, you'll see certain projects that are tendered specifically stating that a machine-control system has to be used, because it reduces the man hours that need to be on a project. It also eliminates human error. As a long-time surveyor, I can tell you that human error is still the number one cause of issues in construction."

IN ADDITION TO IMPROVED ACCURACY AND INCREASED PRODUCTIVITY, WANLESS SAYS NEW TECHNOLOGY MAKES FOR A SAFER WORK ENVIRONMENT.

Chris Moskal, Western Region vice-president at Toromont Cat, says machine control means heavy equipment operators make the grade every time.

"Take a machine like an excavator," Moskal says. "You set the digging depth and the ceiling height into the machine, and it basically controls the dig. You can take an inexperienced operator right up to an experienced operator, put them in the machine, and you'll get accurate depth



and width, just by plugging the data and coordinates into the machine.

"That goes right through to grader technology, where you've got GPS controlling the slope of the blade and the height of the blade, so you get bang-on accuracy on any job site."

In addition to improved accuracy and increased productivity, Wanless says new technology makes for a safer work environment.

"A good example is the first machine-control system that was used in the province, back in 2006 at the airport on the new apron," Wanless says.

"Before, the surveyors would have to go out and place stakes every six metres on a grid for quality control and accuracy, but once they got that machine-control system, the surveyors didn't have to go out and place stakes and potentially be in harm's way of all the machines going back and forth."

One emerging technology that could reduce the need for hands-on surveying is mobile LiDAR.

"That's a LiDAR that is on a vehicle that you drive around and literally map everything," Wanless says.

"Once they actually streamline the process, instead of having a surveyor or a plane-based LiDAR flying overhead, you can drive this thing around your site. It scans everything in and then the software calculates all your elevation changes and where you're high and low. It can then send that data to the dozer and then the dozer can go out, know where the high points and low points are, and shave them off."

"That will be the next thing, a streamlining of the data-sharing capabilities."

Today's equipment is also more comfortable, with air conditioned cabs and more user-friendly controls.

"You're not cranking on a steering wheel or levers anymore. It's all joystick-controlled with buttons on the joystick," Moskal says.

"The efficiency of the operators themselves is greatly improved with joysticks. You don't get operator fatigue like you used to. The design of the cab, the comfort of the cab, the design of the joysticks, it's all ergonomically designed so it fits the operator."

With seemingly futuristic technology already a reality, will we soon see driverless dozers and other autonomous heavy equipment?

"You may see dozers on a big project just pushing dirt, but they still need to have a person sitting there with a remote control to take over for those final details as they need them," Wanless says.

Even though the technology exists in other closely related sectors like mining and farming, the construction sector hasn't really taken that on unless it's in a dangerous situation. For instance, there are remote-controlled machines for things like hazardous site reclamation.

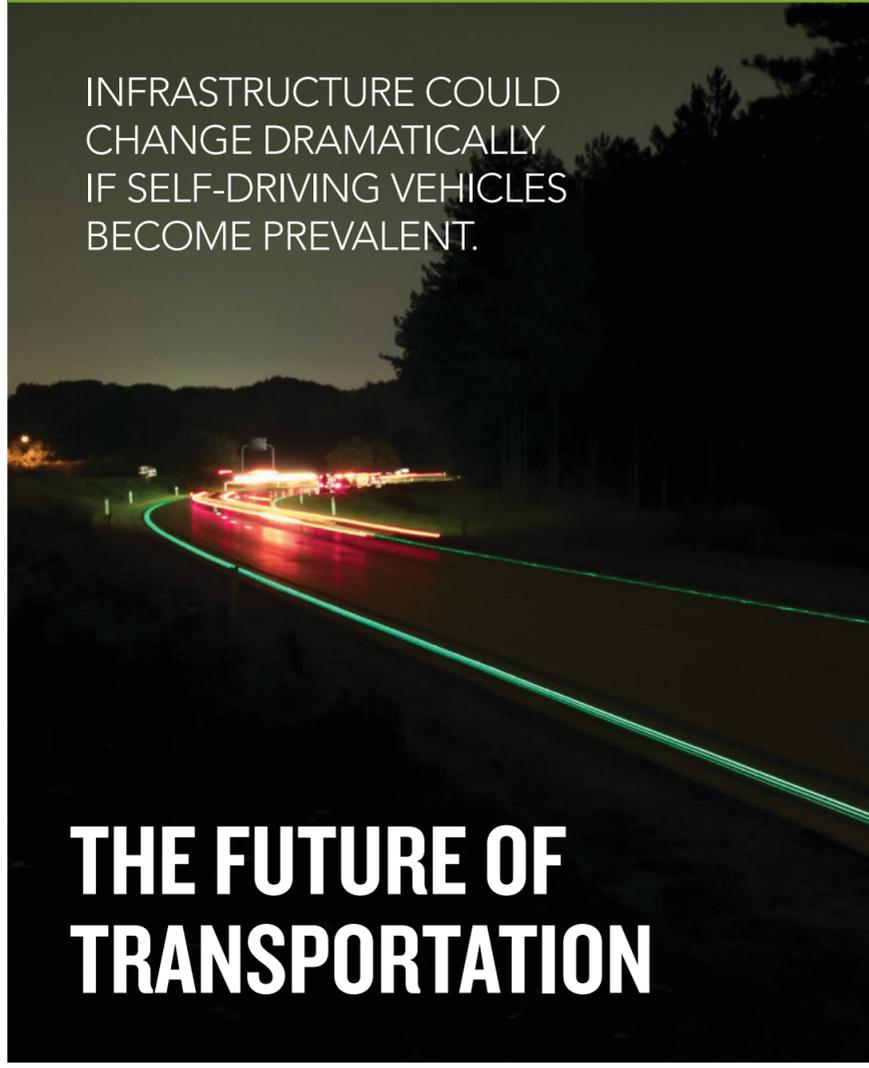
However, Wanless says he can see a day when driverless dozers are common in heavy construction.

"It may not happen in my life-time, but it will definitely happen in my son's."

A DOZER EQUIPPED WITH A MACHINE-CONTROL SYSTEM. PHOTO COURTESY OF WANLESS GEO-POINT SOLUTIONS



INFRASTRUCTURE COULD CHANGE DRAMATICALLY IF SELF-DRIVING VEHICLES BECOME PREVALENT.



THE FUTURE OF TRANSPORTATION

COMPANY STUDIO ROOSEGARD HAS CREATED GLOW-IN-THE-DARK ROAD MARKINGS.

BY PATRICK REDIGER

BASED ON SCIENCE FICTION MOVIES OF OLD, FLYING CARS AND SOPHISTICATED ROADWAY SYSTEMS SHOULD BE COMMONPLACE BY NOW. PREDICTING THE FUTURE OF TRANSPORTATION HAS NEVER BEEN AN EASY FEAT, AND THERE'S NO TELLING WHAT THE MANITOBA HEAVY CONSTRUCTION ASSOCIATION'S 100TH YEAR WILL HOLD.

“Things are changing so fast that it's really hard to put a handle on where we'll be in 25 years,” says David Duval, associate professor in the Faculty of Business and Economics at the University of Winnipeg and an expert in transportation policy.

There have been some glimpses in recent years of what the future might look like, as more companies test autonomous (self-driving) vehicles, which are capable of sensing their environment and navigating without human input.

Traffic technology expert Garreth Rempel says this technology is a game-changer.

“Since the automobile was introduced, everything we've really done has a human factor to it. How will a human drive a vehicle, interpret the roadway, use signs and adjust their operations to conditions?” says Rempel, co-owner of MORR Consulting and Trainfo. “When you remove the human from transportation, we will have to question whether we are replacing every single engineering guide, relearning concepts and starting new.”

Rempel says infrastructure could change dramatically if self-driving vehicles become prevalent. With human drivers, signs and signals are constructed to communicate speed limits, stop lights and construction notices. Since self-driving vehicles use methods like GPS and computers to detect their surroundings, the focus could shift to creating a strong digital network to communicate with these vehicles.

The roadway of the future could also take on a different look. More lighting, for example, may be incorporated into roadways. Glow-in-the-dark roads would provide lighting at night and remain off during the day. These roads would use photo-luminising powder that charge during the day. Motion sensors could also be used to light up sections of a road only when



ARTIST'S RENDITION OF A "SKATE" AS IMAGINED BY THE BORING COMPANY.

drivers approach.

For electric vehicles, specialty lanes could be used to allow them to charge as they go, using embedded magnetic fields or solar power. There's even been research done on solar roads, which would consist of solar panels installed on glass roads, complete with LEDs and microprocessors.

Smart technology could also affect bridges. In the past, over-height trucks passing under bridges have caused damage. But Rempel says technology could be used to communicate with self-driving transport vehicles to tell them where they can't drive.

The airways also have a role to play. Drones could be used more frequently for land surveying and inspections of roadways and bridges, and Rempel says they'll require infrastructure to land.

One of the more dramatic changes could involve underground networks of tunnels, where electric “skates” would carry eight to 16 passengers at high speeds. That's a concept being explored by Tesla entrepreneur Elon Musk through the Boring Company.

With so many technologies in the concept stage, the heavy construction industry will have to adjust, but there's no rush to make major changes just yet.

“There have been changes in the past and companies have always adapted, so there's no reason to believe they can't adapt to changes in the future,” Duval says. “Companies should be prepared, but not change based on hypotheticals.”

QUEREL TRAILERS

QUEREL TRAILERS | 1585 NIAKWA RD E. | WINNIPEG MB R2J 3T3

Backed by a solid reputation with over 18 years in Manitoba, we would like to thank our loyal infrastructure partners for their continued support.








1-866-953-5800

quereltrailers.com



FIRST RESPONDERS

HEAVY CONSTRUCTION WORKERS ARE UNSUNG HEROES IN FLOOD-FIGHTING

BY JIM TIMLICK

It's been more than 20 years since Manitoba's Flood of the Century swept across the province, but for Greg Orbanski the memories are still as fresh as if it happened just yesterday.

The Red River flood of 1997 caused more than \$500 million in damage and came perilously close to swamping the city of Winnipeg. More than 25,000 people were forced to flee their homes in several communities, including Morris and Ste. Agathe. Flood-fighters scrambled to build dikes and carve channels to keep the river at bay following a massive spring blizzard that dumped as much as 50 centimetres of snow over three days.

Orbanski witnessed the effects of the flood first-hand. His company, Tri-Line Construction, was heavily involved in flood-fighting efforts and played a key role in the construction of a 42-kilometre long Z-dike near the town of Brunkild. The dike was built in a matter of days at a cost of \$10 million and ultimately helped to keep Winnipeg from becoming swamped.

"I remember standing on the dike. We'd built it up 14 feet from (the) prairie. When you stood on the water side of it, the water was almost trickling over. All you could see were these whitecaps

and this fast-moving water," he recalls. "Where we were standing, there would have been three or four metres of water in downtown Winnipeg (if there had been a breach)."

While the Canadian military played an integral role in coordinating flood-fighting efforts that spring, it could be argued that the Manitoba heavy construction industry were the unsung heroes of the battle.

Many of its members worked around the clock, moving earth to build dikes, shore up intake structures and dig channels to allow water to flow where it would do the least harm. In a sense, they are first responders when it comes to flood protection, although many people are unaware of their contributions.

"A lot of people probably aren't aware of what we do," says Vector Construction founder Don Whitmore.

"In fairness, the average Winnipeg resident is more concerned with whether they're going to get flooded or whether or not they can get to work. Most people are probably not really thinking of the heavy construction industry."

Whitmore and his company became involved in flood protection in 1966, when a heavy spring snowfall caused the banks of the Red River to swell. He's seen

a lot of changes since then. Today, flood forecasting and earthmoving efforts are far better coordinated than they were 50 years ago.

"At that time contractors and their equipment were just told to go into a farmer's field and excavate what would effectively be a dugout and take that dirt with your trucks and cats and scrapers," Whitmore recalls. "We didn't know if we had two or three weeks at the time. You just got as many operators as you could to mobilize in the city."

Perhaps the biggest change has been in the technology used to protect communities. Heavy equipment used to move earth and rock is bigger, quieter and more efficient. And they have the added advantage of GPS technology. While it was available during the 1997 flood, it wasn't until several years later that GPS became a common tool in the heavy construction industry.

"During the 2011 flood it was a lot easier for them to get a handle on elevations. GPS was great because they could get levels a whole lot quicker," says Orbanski, the current chair of the Manitoba Heavy Construction Association. "It's definitely made it a lot quicker to get the work done, plus you are doing it right the first time."

While sandbags aren't likely to disappear any time soon, the technology used in flood protection continues to evolve. Autonomous vehicles are already being used in the agricultural and mining industries and Orbanski and Whitmore both see a day when they will be adopted for flood-fighting.

"We're not that far away from driverless trucks," Whitmore says. "We're seeing smart cities and smart countries. We've got to come up with smart highways and smart bridges, which we are doing. The industry is changing and will continue to change. Change is a constant for us."

"WHERE WE WERE STANDING, THERE WOULD HAVE BEEN THREE OR FOUR METRES OF WATER IN DOWNTOWN WINNIPEG (IF THERE HAD BEEN A BREACH)."

BARNESDUNCAN.COM

PRECISION & INTEGRITY

BARNES & DUNCAN, SPECIALISTS IN:

- + MUNICIPAL ENGINEERING
- + CONSTRUCTION SURVEYING
- + GEOMATICS

In this line of work, precision and integrity determine the success of every project and every relationship.

At Barnes & Duncan, we have been successfully building our reputation on these attributes for over 100 years while serving the construction industry in Manitoba.

Beginning as Land Surveyors, we have evolved into a multidisciplinary firm, with the latest expertise in land surveying, municipal engineering, construction surveying and geomatics, including:

3-D Lidar Scanning, bathymetric surveying and geographic information services.

Our clients include crown corporations, various levels of government, heavy construction industry, developers, and various professionals such as architects and lawyers. We complete projects across the Prairies, into Western Ontario and the North.

We are growing, because we continue to gain the trust of more clients. Now, we are proudly moving to our new location at #6 Donald Street in Winnipeg.

Make Precision & Integrity a part of your next project.

Make Barnes & Duncan your trusted partner.

P: +1 204.284.5999
TF: +1 800.665.6609

6 DONALD ST.
WINNIPEG, MB, R3L 0K6

BARNES ¹⁹⁰⁶
& DUNCAN

PUTTING CONSTRUCTION WORKERS IN THE (SIMULATED) SEAT OF HEAVY EQUIPMENT

BY BOB ARMSTRONG



Nobody wants to be the construction crew member who accidentally destroys hundreds of thousands of dollars' worth of equipment — or even worse.

That's why simulators contribute so much to training workers to operate the bulldozers, graders, excavators and loaders that are found at heavy construction sites across Manitoba.

The Manitoba Heavy Construction Association (MHCA), which has used its seven simulators in Winnipeg for several years, is making the equipment more available now through in-house training — across the province.

"When you sit in that seat, it will be like you're sitting in that piece of equipment," says Phil McDaniel, coordinator of heavy equipment operator training with the MHCA.

The MHCA has Caterpillar and John Deere simulators — supplied with the help of Brandt Tractor Ltd. and Toromont CAT — with controls just like those on the actual machines. And they don't just simulate the experience of operating a big machine; they evaluate the students' performance. McDaniel notes that the simulators will shut down if a student does something that would be dangerous in a real-life situation, such as passing the bucket of a loader over the cab of the truck while it's being loaded or manoeuvring into a dangerous angle.

The simulators also show students when they are performing inefficiently.

"It's proficiency-based," McDaniel says. "It will show you if you're making the company money or losing the company money."

The benefits of simulator training are clear, says McDaniel, whose job includes conducting follow-up assessment of trainees on work sites.

"This allows a student to get real-world skills in a safe work environment. When you actually put them in a piece of heavy equipment they don't feel intimidated by the size and handling of the equipment."

The MHCA's WORKSAFELY™ team is working with the Manitoba Construction Sector Council (MCSC) to bring the training to northern Manitoba. Four remote First Nations will receive simulator training in Thompson and then training in heavy construction and safety courses in their own communities.

An important aspect of the project is that each of the Indigenous communities have upcoming construction projects that may give students the chance to get work experience in their home communities, says MCSC executive director Carol Paul.

"The simulator-based training project provides a controlled environment where students can develop skills in a wide range of scenarios, mimicking real-world construction work."



PHOTO COURTESY OF CATERPILLAR

BUILDING A CULTURE OF SAFETY

MANITOBA'S HEAVY CONSTRUCTION INDUSTRY BUILT A CULTURE OF SAFETY THE WAY IT DOES ALMOST EVERYTHING ELSE — BY BREAKING NEW GROUND AND THEN IMPROVING ON IT.



The Manitoba Heavy Construction Association was ahead of the curve in 1990, when it hired its first safety adviser to develop an industry-focused workplace safety and health program that was eventually branded as WORKSAFELY™.

Over the next 10 years, MHCA worked with its partners in the Canadian Federation of Construction Safety Associations to develop and deliver a common safety platform, which evolved in 2000 into the COR™ (Certificate of Recognition) program.

Today, both WORKSAFELY™ and COR™ are models for other industries, but it took a societal shift to raise the safety bar, says Maple Leaf Construction president Barry Brown, who was MHCA's board chair in 1990.

"In those days, I hate to say this, but safety probably wasn't on very many people's minds," Brown says. "It was, 'Well, this is the way we do things and we've always done it this way so what do we need safety for?'"

As a board member of the Canadian Construction Association, Brown knew safety was an evolving issue and that the MHCA had to be a leader, on moral and practical grounds.

"(We) were able to convince a lot of people in Manitoba that we need to do this because it was the right thing to do," he says. "And unless we developed or helped develop it we'd be left behind. We felt it was important that we drive the bus rather than chase the bus."

The MHCA and the Winnipeg Construction Association (WCA) each developed safety programs tailored to their specific industries, with support from the Workers Compensation



WORKSAFELY™'S DON HURST TALKS ABOUT COR™ ON-SITE

Board, which collects levies from construction companies to fund WORKSAFELY™ and the WCA's Construction Safety Association of Manitoba (CSAM) programs. They were the first industries to strike such an agreement with WCB, which required approval from more than 50 per cent of their member companies.

Brown says the MHCA developed its own safety program because of the unique challenges of the more mobile heavy construction industry.

"How we go about things is totally different and our needs are different," he says.

Don Hurst, director of WORKSAFELY™ training and education, says the nationally recognized COR™ program contains 13 procedural and training requirements that are standard across Canada, along with additional requirements specific to different provincial safety regulations. Certified companies are required to conduct annual internal audits of safety training and procedures, and provide documentation to WORKSAFELY™, which conducts an external audit every third year.

COR™ certification, required to bid on contracts worth more than \$100,000 in Manitoba, is recognized as equivalent to SAFE Work Manitoba's new SAFE Work Certified program. Starting in 2018, companies that are certified under either program for a full year receive a 15 per cent rebate on their WCB premiums.

Hurst says 75 per cent of the heavy construction workforce in Manitoba is employed by one of the 350 COR™-certified companies.

"I think that's a really good level of success. That is, I would say, an enormous milestone in terms of just reaching and delivering programs to those companies."

Training may be delivered on-site at a company's offices or at the MHCAs offices, with conventional classroom presentations augmented by practical training in the field.

Hurst says training programs are continually maturing and evolving, and WORKSAFELY™ is embracing technology to deliver and document programs.

Safety-management software called SiteDocs allows COR™-certified companies to maintain and share electronic records on tablets and mobile devices. And WORKSAFELY™ has worked with WCB's research and workplace innovation program for two years to develop electronic teaching tools for four safety programs — flag person, personal protective equipment, prime contractors and road builders safety programs — that introduce new workers to safety, and it is exploring e-learning programs that might be offered in future.

TRAINING MAY BE DELIVERED ON-SITE AT A COMPANY'S OFFICES OR AT THE MHCAs OFFICES, WITH CONVENTIONAL CLASSROOM PRESENTATIONS AUGMENTED BY PRACTICAL TRAINING IN THE FIELD.

Barry Brown says technology is changing the way work is performed on job sites, too.

"It won't be long now before a lot of the machines are robotic. You'll still need operators but they won't sit in the machine, they'll sit somewhere else in a safe environment and control the machine remotely."

Brown is pleased to see how a culture of safety has become the industry norm.

"It's a different thinking. It's certainly now front and centre," he says. "Virtually all the contractors now have a safety officer, or numerous safety officers, within their employ. It's good that we're more cognizant of the fact that employees can get hurt. We don't want them to get hurt — we want them to go back to their families every day in one piece."

 **Russell Redi-Mix Concrete**
Langenburg Redi-Mix Ltd.
A DIVISION OF COCO GROUP



Aggregate Productions - Asphalt Paving
Concrete Highway Construction - Major Excavations
Site Development - Underground Utilities Installation

Unit 7 – 3111 Millar Ave.
Saskatoon, SK S7K 6N3
306-653-2711

Hwy. 16 S, Box 545
Russell, MB R0J 1W0
204-773-2586

1880 Winnipeg St.
Regina, SK S4P 3C2
306-949-0399

Congratulations MHCAs on your 75th Anniversary

from proud MHCAs member



Wanless Geo-Point Solutions Inc.

We are pleased to be offering premier solutions and services to Central Canadian companies and organizations requiring:



- Engineering Surveying & Geomatics
- Construction Layout & QA/QC Services
- Machine Control & Guidance Service & Support
- Aerial Drone (UAV) Surveying
- High Definition Laser Scanning & Point Cloud
- Mobile Mapping Services
- GIS Data Capture
- Bathymetric Survey Services
- Contract Admin & Inspection Services
- Small Site Design & Drafting Services
- Education & Training



We offer these services to the following sectors:

- Heavy Construction & Engineering
- Building Construction & Architecture
- Utilities
- Municipal/Government
- Natural Resource Sectors
- Agriculture



PH: 204-799-5998

www.wgps.ca | darren@wgps.ca

SAFE DIGGING: IT OUGHT TO BE THE LAW



BY BOB ARMSTRONG

A BILL SLOWLY MAKING ITS WAY THROUGH PARLIAMENT AIMS TO SAVE CANADA AS MUCH AS \$1 BILLION A YEAR IN ECONOMIC DISRUPTION TO UNDERGROUND UTILITIES — AND REDUCE THE RISK OF CONSTRUCTION-RELATED INJURY OR DEATH.

“Bill S-229 would require all federally regulated underground infrastructure to be registered with a one-call service such as Click Before You Dig Manitoba,” says Mike Sullivan, executive director of the Canadian Common Ground Alliance, an industry organization that advocates for safety of underground infrastructure such as pipelines and telecommunications lines.

The proposed legislation would require all underground utility owners to belong to, and register their underground infrastructure with, a single ‘one-call’ service. Contractors would be able to call that service to locate all utilities underground, before their work starts.

Mandatory registration would reduce the estimated 12,000 utility strikes that happen each year across Canada.

“I’ve seen major thoroughfares shut down in Winnipeg as a result of utility damages,” says Rob Morrison, of Manitoba Hydro.

Morrison supervises Manitoba Hydro’s response to requests to locate underground infrastructure and serves on the executive of the Manitoba Common Ground Alliance.

Locate requests can be made online at clickbeforeyoudigmb.com or by telephone at 1-800-940-3447. More than 62,000 such requests were received last year.

In Manitoba, the Gas Pipelines Excavation Regulation requires that any person carrying out an excavation first ensures that gas pipelines in the area are identified. But gas pipelines aren’t

IN MANITOBA, THE GAS PIPELINES EXCAVATION REGULATION REQUIRES THAT ANY PERSON CARRYING OUT AN EXCAVATION FIRST ENSURES THAT GAS PIPELINES IN THE AREA ARE IDENTIFIED. BUT GAS PIPELINES AREN'T THE ONLY HAZARDS. UNDERGROUND INFRASTRUCTURE INCLUDES CABLE, TELEPHONE, ELECTRIC AND BROADBAND CONNECTIONS.

the only hazards. Underground infrastructure includes cable, telephone, electric and broadband connections.

While strikes haven’t led to loss of life in recent years, Sullivan stresses that the risk is always there. The cost of underground infrastructure damage, including service disruptions, environmental contamination, emergency services and other factors, is estimated at \$1 billion a year in Canada.

The industry has asked the federal government to enact a law requiring registration of underground infrastructure. Last May, the Senate passed Bill S-229, which covers federally regulated infrastructure, including telecommunications and pipelines that cross provincial or national borders. However, Bill S-229 has stalled on the way to approval by the House of Commons.

The recent federal budget, which contained a provision changing the name of the National Energy Board, will likely require a rewrite of the bill’s language, and Sullivan acknowledges that the number of different federal departments involved in underground infrastructure likely adds to the complexity of the bill’s path.

The CCGA is urging Parliament to move and hopes Bill S-229 will become a template for provinces to enact similar legislation. Since Ontario did so, damage to underground infrastructure has been

reduced by 60 per cent.

The CCGA has established a website at www.icandigsafe.ca to gather public support for the bill. Users can indicate their support for the site and have a letter sent on their behalf to their local MP to advocate for the bill, which has the support of the Manitoba Common Ground Alliance.

“This is about taking the ‘guess work’ out and simplifying the first step to ensuring a safe excavation,” says Morrison.



Site Development | Sub-divisions | Road Building
 Surface Water Management | Retention Ponds
 Wastewater Stabilization Pond Construction & Maintenance
 Sewer and Water Services | Excavation Services
 Granular Supply | Custom Hauling | Snow Removal

CELEBRATING 95 YEARS OF DELIVERING EXCELLENCE IN WORKMANSHIP

Highly skilled & invested in innovation, we have a multidisciplinary workforce and competencies to exceed the most stringent quality standards.

Provincial | Municipal | Residential
 Commercial - Industrial & Public Infrastructure Works
 Asphalt | Concrete | Aggregate | Underground | Equipment

Call an expert today. 204.949.8700

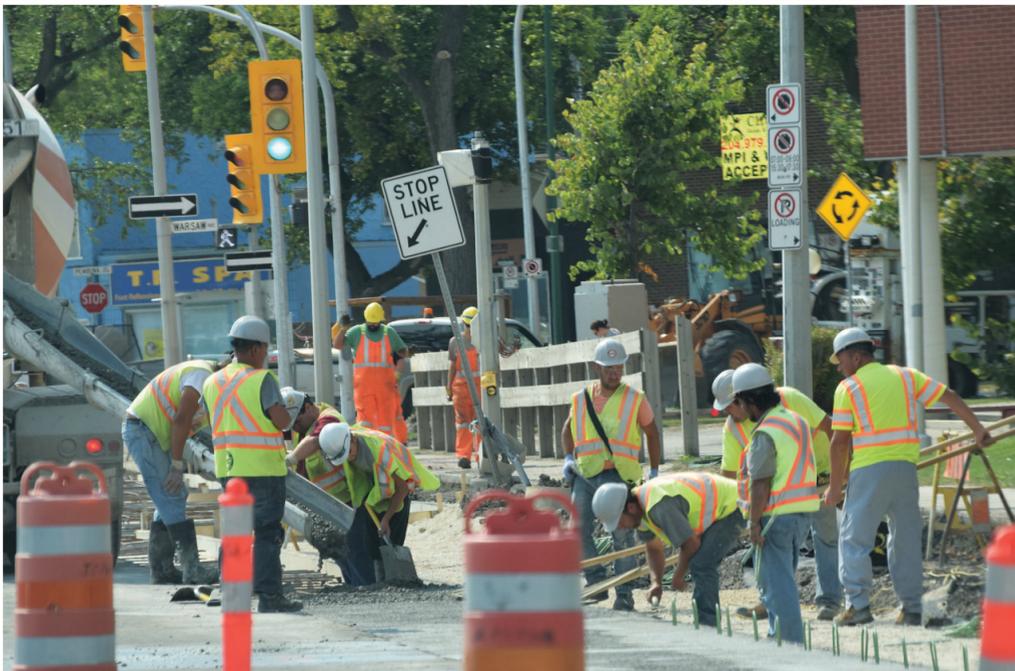


Earth Max Construction Inc.
 Phone: 204-344-5760 Fax: 204-480-1683
info@earthmax.ca www.earthmax.ca
 Stony Mountain, MB



A SAFETY ROLE MODEL FOR ALL INDUSTRIES

MANITOBA'S HEAVY CONSTRUCTION INDUSTRY HAS PLAYED AN IMPORTANT ROLE IN THE WIDENING FOCUS ON WORKPLACE INJURY AND ILLNESS PREVENTION IN OUR PROVINCE.



SINCE 2000, WCB REPORTS TIME-LOSS INJURY RATES HAVE FALLEN FROM 5.6 PER 100 WORKERS TO 2.8

Manitoba Heavy Construction Association (MHCA) President Chris Lorenc was an employer representative on the 2005 Workers Compensation Act legislative review task force, which recommended that the Workers Compensation Board (WCB) make prevention of workplace injuries a top priority.

The MHCA has been a leader on that front since 1990, having developed, delivered and expanded a successful workplace safety and education program, branded as WORKSAFELY™ in 2011.

“If we focus simply on responding to accidents, then we’re accepting that they are inevitable,” says Lorenc, who also served on the 2017 review task force and currently sits on the WCB’s board of directors, as chair of its prevention sub-committee.

“I’d like to believe that with investment in education and training, with investment in workplace practices and procedures, we can

significantly reduce exposure risk to injury — to its severity, to its duration, to its frequency. And I think what the record of our program shows is that those objectives have consistently been addressed, and successfully.”

The 2005 task force recommended that WCB’s mandate should include a focus on prevention and that the province’s Workplace Safety and Health branch should have a mandate for enforcement.

SAFE Work Services (the precursor to SAFE Work Manitoba) originated as a department within the WCB in 2007. Over the next five years, SAFE Work Services worked closely with WORKSAFELY™ and the Winnipeg Construction Association’s Construction Safety Association of Manitoba (CSAM). These industry organizations played a vital role in promoting safety and delivering services that directly improved outcomes, including growing the COR™ (Certificate of Recognition) program.

Since MHCA began delivering the COR™ program

in 2000, WCB has seen time-loss injury rates drop from 5.6 per 100 hundred workers to 2.8 in 2017. Today, Manitoba’s average WCB premiums are the lowest in Canada.

In 2014, SAFE Work Manitoba was established as an arm’s-length organization funded and operated by the WCB. Along with public awareness campaigns, it has expanded its scope to focus on several key areas. Some of its initiatives have been modelled after similar safety programs successfully implemented in the construction sector.

Jamie Hall, SAFE Work Manitoba’s Chief Operating Officer, explains that one of the organization’s strategic priorities has been to work with other industries to create industry-based safety programs. Since 2014, new industry-based safety programs have been developed in the trucking, manufacturing and motor vehicle industries. A newer program in the agricultural industry is finding its feet, and public organizations and Crown corporations recently established their own industry-based safety program.

“The industry-based programs in construction, MHCA’s WORKSAFELY™ program and CSAM, served as successful examples as other industries started down this path,” says Hall.

He adds the success of the construction industry’s COR™ program, as well as active participation by the construction industry, helped in establishing a new certification program for all industries.

“We could show in the province that, in the construction sector, COR™ reduced injuries, and we wanted to bring that same success to other industries.”

Starting in 2018, companies that are SAFE Work Certified for a 12-month period receive a 15 per cent rebate on their WCB premiums through the Prevention Rebate Program. Since COR™ certification is recognized under this program, construction companies are expected to reap the lion’s share of about \$8 million that will be returned to employers in Manitoba this year.

www.genagg.ca

GENERAL

AGGREGATE EQUIPMENT SALES

Sales ▲ Rental ▲ Parts ▲ Service



The Complete Source For All Your Aggregate Needs!



▲ Winnipeg | 204-697-9600
841 Oak Point Hwy, Winnipeg, MB

▲ Regina | 306-757-2400
18 McLeod Road, Regina, SK

**Come North.
The future is unlimited.**

**Come North.
Learn then Earn.**

**Apply now for Fall 2018
classes in
Heavy Duty Mechanics
or Industrial Welding**

**For more information,
please contact us.**

W: ucn.ca

E; info@ucn.ca

P: 866-627-8500

