



The Clock is Ticking on our Infrastructure Deficit



Mike Martens
President
ICBA Alberta

Just as Albertans were turning their minds to the Calgary Stampede earlier this summer, the city found itself preoccupied with an infrastructure failure that impacted more than half its water supply, and resulted in a state-of-emergency declaration and weeks-long use restrictions.

This story is playing out across the country – in the fall of 2021, historic rainfalls took out all road and rail access to the Port

of Vancouver; and in June the provincial government shut down the Ontario Science Centre overnight upon receiving an engineering report indicating that the building had become unsafe.

These are just a few examples of the results of our failure to invest properly in crucial assets that meet our transportation, sanitation, energy, health, educational and other needs.

To put some numbers to it: According to StatsCan, 45 per cent of Canada’s roads are in fair, poor, very poor or unknown condition, with nearly 80 percent being more than a quarter century old. In Alberta alone, the

municipal infrastructure deficit is estimated to be about \$30 billion.

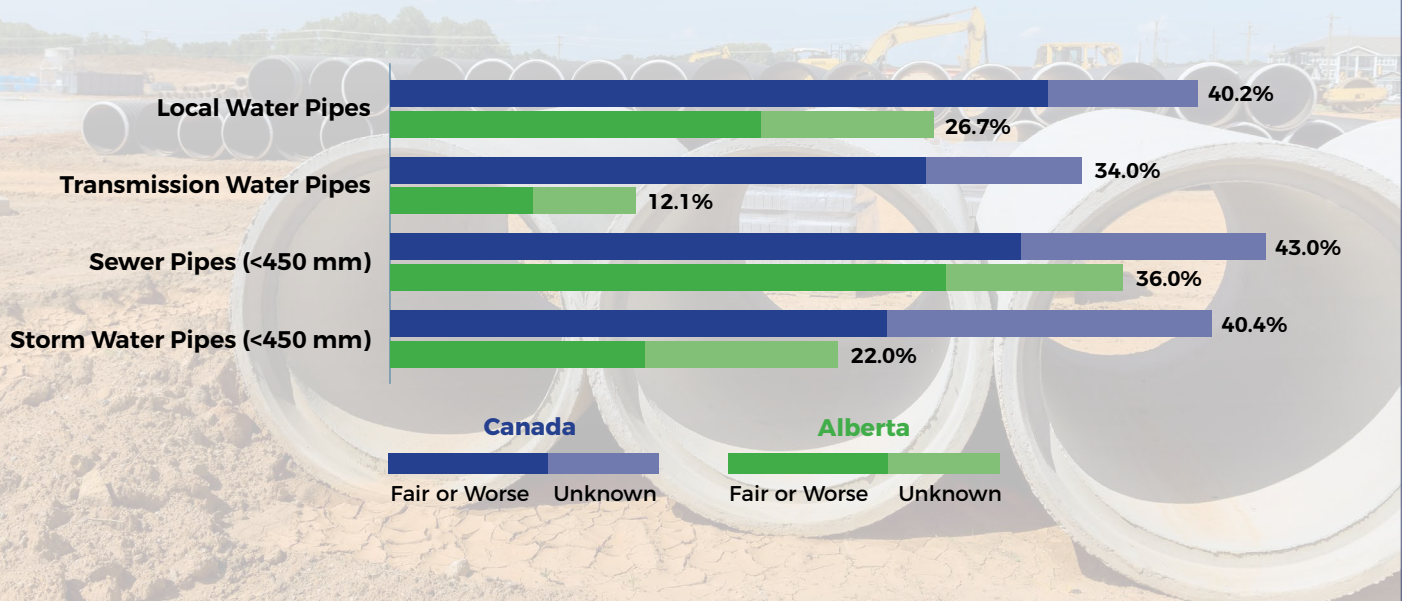
Solutions include speeding up approvals and permitting, more skilled trades training in high schools, and attracting more immigrants with construction trades credentials (only two per cent of new permanent immigrants work in construction). All of this will help us build more and build faster.

We also need to re-work how infrastructure is funded so that the burden is appropriately spread across governments and users.

As we detail in this *Monitor*, the urgency to act is getting greater by the day.

Condition of Key Municipally Owned Infrastructure

Canada’s most recent Core Public Infrastructure Survey paints an unsettling picture of the state of vital infrastructure. Across the four categories listed below, on average nearly a quarter of Alberta’s infrastructure is in either an unknown or no more than “fair” condition. That proportion rises to well over a third in the case of sewer pipes. Canada-wide, the situation is even worse.



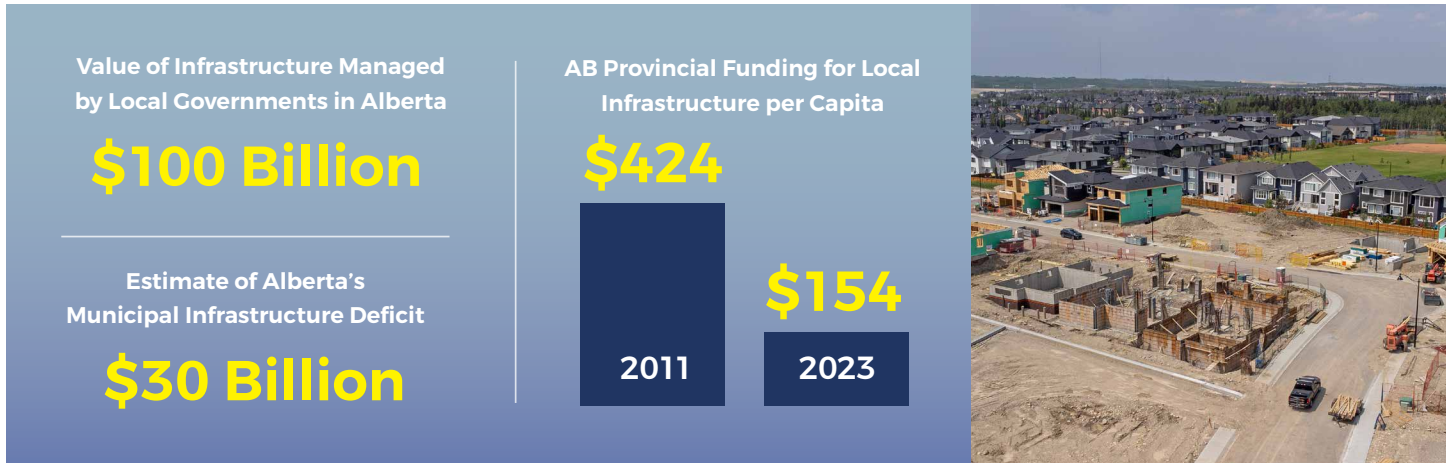
Source: StatsCan Core Public Infrastructure Survey (data is for 2020, updated data due for release in October)

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Municipalities Face a Big and Growing Challenge

Municipalities face a daunting infrastructure challenge. Local governments own about 60% of public infrastructure in Canada, yet have limited ability to fund it directly. Nationally, the cumulative gap between what we have spent and should have spent – to scale our infrastructure to our needs and maintain it well – has been estimated in the range of \$110-\$270 billion.¹



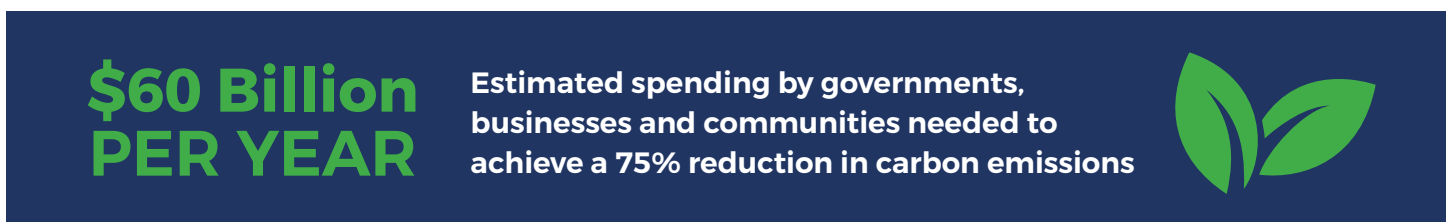
Source: Alberta Municipalities www.abmunis.ca/advocacy-resources/infrastructure/lets-talk-about-infrastructure and <https://shorturl.at/BbLdm>

The challenge is all the greater since our infrastructure needs are growing, especially here in Alberta. The province's population is projected to reach 6.8 million people by 2045 – a nearly 40% growth rate over the next two decades, far exceeding the projected national growth rate of 22%. That will mean hundreds of thousands of new households and homes, and vastly increased infrastructure needs.



Sources: StatsCan (medium growth scenario); Federation of Canadian Municipalities

In addition to the long-standing deficit on conventional infrastructure, new requirements will increasingly compete for dollars – many of them related to the pursuit of a net-zero-carbon economy.



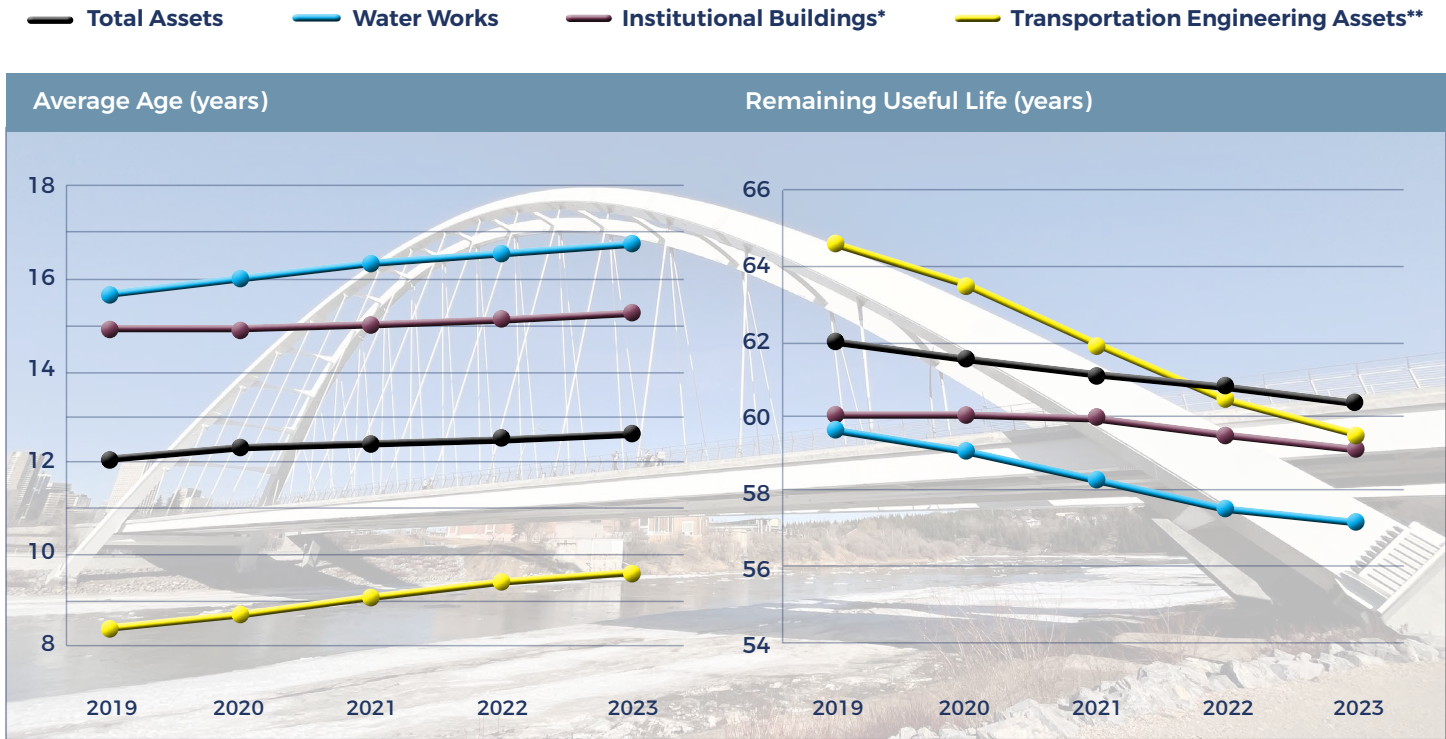
Source: RBC, "The \$2 Trillion Transition: Canada's Road to Net Zero", 2021

¹ Source: <https://www.caninfra.ca/insights-6> Methodologies vary widely in calculating infrastructure deficits. As some of these estimates date back several years or more, the national infrastructure deficit is likely even higher today.

Existing Infrastructure is Rapidly Aging Out

If we were investing enough to sustain our most crucial infrastructure assets and services, the average age and remaining useful life of such assets would at least hold steady, if not improve. But from year to year, we see a steady upward creep in average age and a steady decline in remaining useful life, along with growing infrastructure deficits across key sectors.

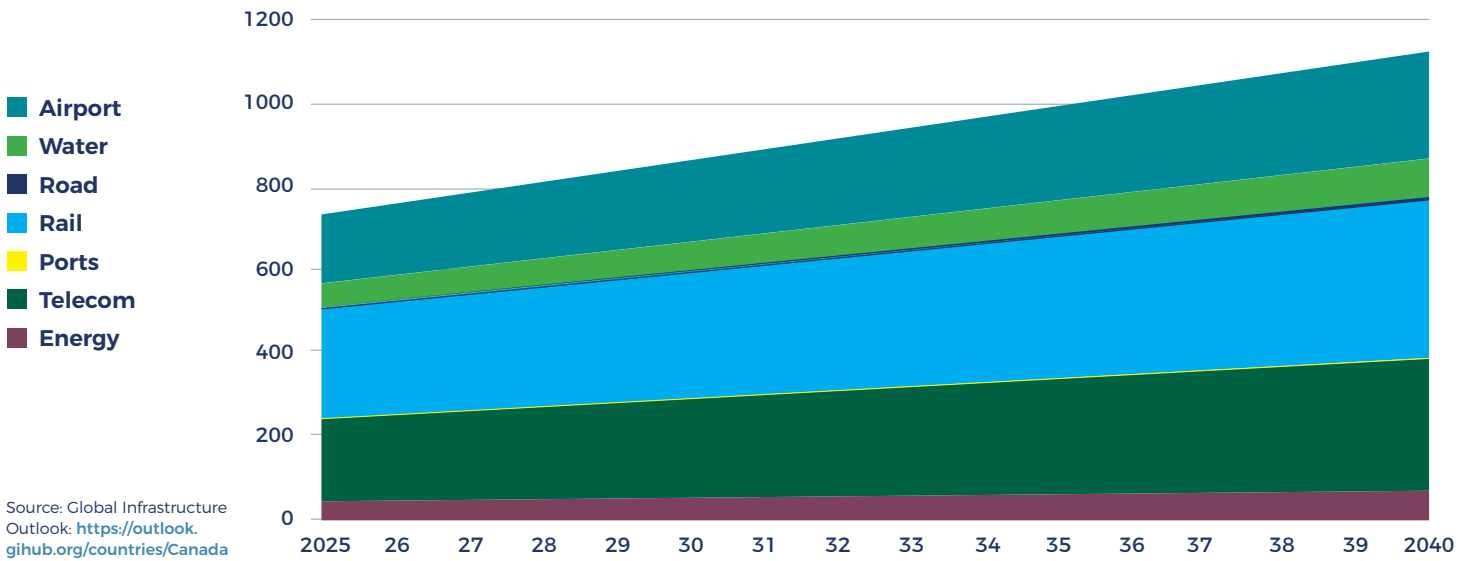
Average Age and Remaining Useful Life of Key Infrastructure in Alberta



Source: Statistics Canada Infrastructure Economic Accounts www150.statcan.gc.ca/t1/tb11/en/cv.action?pid=3610061101

* Educational and health care facilities, etc. ** Highways, roads and bridges, etc.

Projected Infrastructure Investment Gap by Sector (\$M Canada-wide)



Source: Global Infrastructure Outlook: <https://outlook.gihub.org/countries/Canada>

We're Not Getting the Best Value When We Do Invest

Public procurement for major infrastructure projects is badly broken – resulting in chronic cost overruns, less value for money, and added pressure on existing infrastructure deficits. It's so bad that it would be difficult to find any infrastructure project in Canada that has been, or is being built, on time and on budget. But a range of best practices could improve outcomes:

The ALBERTA CONSTRUCTION MONITOR is an ICBA Alberta publication providing ahead-of-the-curve information and statistics on the Alberta construction industry and issues relevant to it.

ICBA Alberta advocates for fairness, opportunity, and free enterprise; and supports the success of open shop contractors and ICBA Alberta members by delivering services that enhance the competitiveness of their businesses.

Increase use of Public Private Partnerships and other contracting and financing approaches that reduce government exposure to **cost escalation risk**.



Find creative means to **offset contract costs**, for example, by allowing a contractor to share in the value lift of development rights associated with a project.

Create **performance-based selection criteria** – for example, giving contractors who have performed well on similar projects an advantage when bidding on new projects.



Ensure efficient project-review and permitting processes, so that **bureaucratic delays** don't add to unavoidable cost pressures, and improve government project-management capabilities.

Leverage digital project management and other smart technologies and **construction innovations**.



Promote greater **estimating accuracy**, for example through comparisons to recent similar projects.

Ensure **open and competitive procurement processes**, and hold the line against so-called "Community Benefit Agreements" that restrict bidding to members of specific unions.



Recent Public Project Cost Overruns

Grande Prairie Regional Hospital	Edmonton's Stanley A. Milner Library Renovation	Calgary Green Line Transit Expansion
<p>Original Budget: \$250 Million</p> <p>Actual Cost: \$850 Million</p> <p><i>Originally scheduled to complete in 2014, it opened in December 2021</i></p>	<p>Original Budget: \$62.5 Million</p> <p>Actual Cost: \$84.5 Million</p> <p><i>Despite controversial design and other scope reductions</i></p>	<p>Original Budget: \$5.5 Billion</p> <p>Current Budget: \$6.3 Billion</p> <p><i>Despite cutting 6 stations and other scope reductions</i></p>

Sources: Media coverage

ICBA Alberta

Suite 115
1st Street SW
Calgary, AB T2P 0B3
Toll-free: 1-800-663-5384
Local: 587-315-3319

www.icbaalberta.ca
info@icbaalberta.ca