



Canadian
Construction
Association

Response to
*Building the Canada We
Want in 2050: Engagement
Paper on the National
Infrastructure Assessment*

June 30, 2021

A thriving construction sector can bring Canadians' aspirations to life.

A stable, long-term infrastructure pipeline will create a profitable, sustainable and resilient industry powered by a well-trained and diverse workforce of the future.

INTRODUCTION

- Across Canada, CCA represents more than 20,000 member firms drawn from 63 local and provincial integrated partner associations. CCA gives voice to the public policy, legal and standards development goals of contractors, suppliers and allied business professionals working in, or with, Canada's heavy civil, institutional, commercial, and industrial (ICI) construction industry.
- CCA has long championed the development of a long-term vision and strategy to ensure that Canada remains one of the best countries to live and work in the world. CCA is uniquely positioned to contribute to the desired evidence-based and expert-driven assessment of our country's infrastructure near and medium-term needs and to help establish a long-term vision for public and private infrastructure investments.
- Infrastructure investment can be transformational: a catalyst for nation-building and achieving the aspirations of all Canadians. Yet Canada's infrastructure strategy has been chronically underfunded¹ leading to a multi-billion-dollar infrastructure deficit for our aging assets, and little room for visionary investment.
- The level of infrastructure investment must be consistent and predictable to align resources and ensure a skilled workforce is in place. These funds must also flow swiftly to the very communities who are depending on these investments. Infrastructure investment and the Assessment must focus on the built environment. Using these dollars to expand into social programs may introduce further risks to an already underfunded portfolio and likely introduce more delays to re-building Canada.
- Infrastructure is a key strategic asset that needs a long-term vision, but this vision must also incorporate shorter term priorities. Given the current concerning state of infrastructure and the need to fuel Canada's pandemic recovery, it is important that our focus on the long-term does not detract from addressing immediate infrastructure deficits. There must be a balance.

¹ canadianinfrastructure.ca/downloads/canadian-infrastructure-report-card-2019.pdf

VALUE OF THE SECTOR

- The construction sector is one of Canada's largest employers and a major contributor to the country's economic success. The industry, 70 per cent of which is made up of small and medium-sized enterprises (SMEs), employs more than 1.4 million Canadians and contributes 7.5 per cent towards Canada's Gross Domestic Product (GDP).
- In terms of economic contribution, again using pre-pandemic numbers, the industry accounted for \$142 billion of the \$1.98 trillion in GDP from all industries recorded in 2019.²
- Annually, the industry is responsible for nearly \$400 billion of put-in-place construction.
- Stimulating the construction and maintenance industry is one of the strongest and most effective options governments have for driving economic growth in the post-pandemic era.
- The sector could play a role in contributing to reducing Canada's carbon footprint during the construction process.

OUR NATIONAL CONSULTATION PROCESS

- The comments and recommendations below are the result of an industry-wide consultation. With the support of Nanos Research, CCA conducted a comprehensive, national engagement with our membership and stakeholders consisting of focus groups, an online survey, one-on-one executive interviews, several national workshops, and a literature review. Our consultation is also informed by independent and evidence-based analysis from the Canadian Centre for Economic Analysis and by national public opinion research.

RECOMMENDATIONS

- A thriving construction sector can bring Canadians' aspirations to life. A stable, long-term infrastructure pipeline will create a profitable, sustainable, and resilient industry powered by a well-trained and diverse future workforce.

Recommendation #1:

Canada must develop a long-term vision guided by an independent, apolitical, Canadian Strategic Infrastructure Council.

Recommendation #2:

The funding allocation model must change from intense scrutiny of one-off projects identified by provinces, municipalities, or Indigenous communities to a robust, longer-term asset management plan. Instead, the federal government should be guided by the objectives established by the independent Council and the outcomes identified in these asset plans, and reserve its focus on details for national projects.

Recommendation #3:

Adopting a collaborative and agile approach to public procurement will accelerate the benefits to be gained from infrastructure investment:

- **The federal government should fund provincial and municipal asset plans – not individual projects – in line with the Council's developed vision and objectives;**
- **To ensure accountability, there should be a parallel transparent review process (a) between the Council and the federal government, and (b) between the federal government and provinces/municipalities;**
- **For federal government owned and directed initiatives, new collaborative models should be researched and explored. For example, not just relying on low-cost bid, or P3s.**

² Statistics Canada. Table 36-10-0434-03 Gross domestic product (GDP) at basic prices, by industry, annual average (x 1,000,000)

FLOW CHART

- 1 Statement of 2050 vision for Canada's infrastructure created by a new Canadian Strategic Infrastructure Council (CSIC).
- 2 Condition assessment and gap analysis – CSIC to assess national strategic infrastructure inventory, identify gaps, conduct research and policy development on priorities and value for money.
- 3 National Strategic Infrastructure Plan – plan and develop criteria for approval of programs.
- 4 Multi-year programs and funding requests submitted by the federal government, provinces, territories, Indigenous communities, and municipalities for local and regional infrastructure investment are consistent with a National Strategic Infrastructure Plan.
- 5 Independent evaluation by the Council to result in a recommendation to the Government of Canada for approval of funding at a program level.
- 6 Programs with approved funding would be implemented by local jurisdictions and then nationally by the Federal Departments.
- 7 A transparent annual review of progress on the implementation of approved programs.
- 8 A transparent annual review on the action taken on the advice of the Council by the Government of Canada.

DETAILED RECOMMENDATIONS

Recommendation #1: Canada must develop a long-term vision guided by an independent, apolitical, Canadian Strategic Infrastructure Council that is a catalyst, not a brake, for needed infrastructure investments.

The Council should:

1. Create and publish a **National Strategic Infrastructure Plan**, including a vision and gap analysis, objectives, and a funding framework that distinguishes between provincial, municipal, Indigenous and federal work, with public accountability to the plan. The plan would:
 - a. Reflect broad perspectives, including demographic, geographic, sectoral and other diversity considerations;
 - b. Work to expedite decision-making and flow of funds, not be a new layer or filter;
 - c. Work collaboratively with other levels of government and stakeholders;
 - d. Collect, analyze, and disseminate infrastructure, economic and growth data in order to take data-based decisions; and
 - e. Support provincial and local governments in the development of their asset management plans.
2. Be a centre of expertise to assist or supplement provinces, municipalities, and Indigenous communities in preparing asset management plans and other related research and information. The type of research and analysis services would include:
 - a. Classification of public assets – type, ownership (federal, provincial, municipal, private), and lifecycle;
 - b. Economic results of each class of asset by region (i.e., what is the economic impact of a tidewater port redevelopment locally, provincially, nationally – what is the network data);
 - c. Assessment of the condition of public assets – moment in time and five-year assessment cycle to remain current;
 - d. Impacts and efficiencies of sources of funding and delivery models for strategic national infrastructure;
 - e. Cost of maintenance for each asset; and
 - f. Impact of each asset on climate change.
3. Operate transparently and independently. It would:
 - a. Be responsible for the annual publication of a National Strategic Infrastructure Plan;
 - b. Provide annual reports to the appropriate body and public on the implementation of this plan;
 - c. Engage with provinces and communities in reviewing the progress of their approved and funded plans; and
 - d. Be funded by the Government of Canada on a 7-year stable funding commitment with consideration given to a 7-year mandate review in consultation with stakeholders.

Rationale

- There is a large infrastructure deficit in Canada.³ While not headline-grabbing like self-driving or electric cars, infrastructure like roads and bridges are fundamental to our day-to-day lives. Even a self-driven electric car will need a road to run on and bridges to cross.

3 canadianinfrastructure.ca/downloads/canadian-infrastructure-report-card-2019.pdf

- Nation-building infrastructure can take decades to construct and must be insulated from shorter term pressures.
- The need for environmental impact reviews and multipart governance models all take time to navigate, sometimes adding years before projects can even be started.
- There are many competing and inherently political priorities – e.g. immediate vs long-term; hospitals vs bridges, East vs West, resource economy or green economy, developing a Western Trade Corridor or investing in mass transit in the GTA. Having an independent advisory group would help ensure an appropriate level of scrutiny and decisions based on evidence.
- Our economic future will hinge on enhancing trade-enabling infrastructure like transportation, telecommunications and energy corridors. We need to ensure that our infrastructure investments are forward-looking in terms of addressing the need for resilience in the face of a changing climate and a long-term vision on international economy and trade.

Recommendation #2: The funding allocation model must change from intense scrutiny of one-off projects identified by provinces, municipalities, or Indigenous communities to a robust longer-term asset management plan. Instead, the federal government should be guided by the objectives established by the independent Council and the outcomes identified in these asset plans, and reserve its focus on details for national projects.

- Provinces, territories, and larger municipalities would provide an annual plan and funding request to the Council. The Council would evaluate the provincial plan against the national plan and make its recommendation to government for funding.
- The Government of Canada would make funding available to provinces, territories and Indigenous communities based on approved plans, without further scrutiny, or strings attached, or need for further approvals at the federal level.
- Provinces would report annually on implementation of the approved plan and the Council would conduct an annual review, which would be taken into consideration in approval of subsequent plans and funding.

Rationale

- The Investing in Canada Plan is failing to swiftly approve projects that address infrastructure needs in communities. Only \$50 billion had been spent out of \$180 billion allocated between 2015 and 2019, according to the Auditor General. We believe this is the result of two fundamental problems with the program:
 - o The funding objectives do not align with provincial/municipal needs; and
 - o The federal government is unable to respond with agility to get funds flowing.
- The instability in historical infrastructure investment has reduced the economic rate of return of Canadian economic growth by 8.6 per cent.⁴
- Currently, the federal government covers about 12 per cent of public infrastructure funding yet receives 39 per cent of the fiscal benefits. Provincial, territorial, and municipal governments cover 88 per cent of the funding while only receiving 61 per cent of the fiscal benefits.⁵ The result is a long-term structural underinvestment in the very public infrastructure needed to support the productivity and growth of the Canadian economy.

⁴ Public Infrastructure Underinvestment: The Risk to Canada's Economic Growth, p28

⁵ cancea.ca/cancea/reports/45/ontario-infrastructure-investment-federal-and-provincial-risks-and-rewards

- With predictable year over year funding, the industry can align other necessary resources, including a recruitment and training strategy to attract the next generation of workers, including those from under-represented segments of the population, and ensuring a robust and responsive supply chain.
- The use of sophisticated modelling can help clarify trade-offs between various investment options (e.g., decision to invest in affordable housing or expanding an airport).
- Evaluation methods that don't recognize the value of the assets in the support of socio-economic growth tend to only identify a fifth of the long-term socio-economic benefits associated with infrastructure investment.⁶
- A chronic underinvestment in public infrastructure has cost the Canadian economy a third of its real GDP growth potential.⁷

Recommendation #3: Adopting a collaborative and agile approach to public procurement will accelerate the benefits to be gained from infrastructure investment. This is the time to advance Construction 4.0.

- The federal government should fund provincial and municipal asset plans – not individual projects – in line with the Advisory Council developed vision and objectives.
- For federal government owned and directed initiatives, new collaborative models should be researched and explored, for example, not just relying on low-cost bid, or P3s.
- Public procurement processes should:
 - o Champion innovation;
 - o Recognize the up-front costs of building sustainably;
 - o Shift risk transfer to be more balanced;
 - o Maintain the principles of open, transparent bidding;
 - o Advance Canadian capacity;
 - o Remove aspirational social targets or preferences, no matter how well intentioned; and
 - o Be more agile.

Rationale

- There are only two sources of funds: the people (either directly through user fees or taxation) or private sector investment. Deciding on the optimal way to finance a project requires greater reflection on the criteria for what should be government-owned, what can be owned by the private sector, as well as what can be owned by foreign private capital investment.
- This is not just about spending more, but about investing better and smarter; removing the waste and being better aligned with the real needs of Canadians.
- As the industry strives to deliver improved value through innovation, traditional contract models must evolve. The long-standing practice of awarding contracts to the lowest bidder overlooks the value of innovation and long-term resilience. As such, the construction industry faces a critical barrier to the deployment of more sustainable materials and to invest in technology⁸ that could improve productivity, lifecycle value and reduced carbon footprint.

6 cancea.ca/cancea/bulletins/39/investing-ontarios-public-infrastructure-improved-economic-evaluation-benefits

7 cancea.ca/cancea/reports/47/public-infrastructure-underinvestment-risk-canadas-economic-growth

8 A recent CCA/KMPG report indicated that of those who responded to the survey, 75% rated their digital maturity as fairly low

- Canada needs policies and approaches that aid in de-risking new processes, adopting better practices, and deploying more sustainable materials – all of which are too costly for the industry to implement when projects that integrate those elements are not being awarded.
- Governments must be more agile in procurement and re-consider whether low-cost bid or P3s are achieving the desired outcomes.
- Entangling social policies and equity targets in procurement is not the right approach. Social targets have failed in the US. After 30 years of affirmative action, women still only represent 10 per cent of the workforce.⁹ Instead, CCA is advocating for a partnership with the federal government to attract the next generation of talent to the industry, including those from underrepresented segments, such as women, Indigenous people, new Canadians, and others.
- We need to improve collaboration in procurement, how we work together and deliver projects on time. For example, a one-year delay for a typical infrastructure portfolio of \$100 billion reduces its 30-year value by the equivalent of nearly 10 per cent of the potential total project value.¹⁰
- Many industries have already made significant shifts to integrating technology and digital into their workflows, yet construction lags. By adopting the concept of Construction 4.0,¹¹ that is leveraging technology to digitize, automate and integrate the construction process at all stages of the value chain, the industry can improve productivity, minimize costly rework and better manage budgets.¹²

CONCLUSION

- The Engagement paper states that the National Infrastructure Assessment “will allow for a comprehensive, evidence-based and expert-driven assessment of our country’s infrastructure near and medium-term needs, and establish a long-term vision for public and private infrastructure investments. This work is critical to more quickly and cost-effectively delivering infrastructure projects for Canadians.”
- The CCA endorses the idea of conducting such an assessment and establishing a long-term vision. For many years, we have been asking the federal government to commit to a 25-year plan for sustainable infrastructure investment in Canada, which includes maintenance and training.
- Backed by our 20,000 members from all sectors, and in partnership with 63 related associations, the CCA is uniquely well-positioned to contribute to the desired evidence-based and expert-driven assessment of our country’s infrastructure near and medium-term needs, and to help establish a long-term vision for public and private infrastructure investments.
- Thank you for the opportunity to share our views and to offer our ongoing support in making this initiative a reality.



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⁹ bls.gov/cps/cpsaat18.htm#modal-box-cps Labor Force Statistics from the Current Population Survey

¹⁰ CANCEA

¹¹ encyclopedia.pub/9157

¹² forconstructionpros.com/construction-technology/project-management/article/21283003/djm-design-cad-coordination-construction-40-why-its-time-to-adopt-bim-and-digital-construction



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