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Groundwork before growth

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Perspectives on investing in housing enabling infrastructure

Prepared by: Canada Infrastructure Bank (CIB)

About the Canada Infrastructure Bank (CIB)

Who we are

We are an impact investor developing the next generation of infrastructure Canadians need. Partnering with businesses, institutional investors, Indigenous communities and government, we help bring private investment to projects delivering outcomes like sustainable economic growth, connected communities and energy security and competitiveness.

What we do

The CIB is a proven catalyst for infrastructure that supports Canada's priorities, from economic benefits in the form of increased GDP, improved supply chains, modernized plants and buildings to reliable clean energy, Indigenous participation and job creation.

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Executive summary

Overview

Restoring housing affordability across the country requires building millions of homes in the coming decade roughly double the expected pace of construction. Accelerating at this pace will be challenging for several reasons, including (in some cases) a lack of housing enabling infrastructure (i.e., connections to utility networks, roads and community assets needed for new housing). For many developments, onsite infrastructure will represent a small share of expenditures (Statistics Canada estimates utility connections to existing servicing capacity accounts for 2% of construction costs), but these figures do not represent total costs. In many markets, delivering larger or more complex projects also necessitates significant onsite and community infrastructure investments. These can potentially represent hundreds of millions of expenditures for onsite improvements, while development charges to fund additional offsite servicing capacity may account for more than 20% of total costs.

Addressing this infrastructure gap can help unlock new housing supply. The Canada Infrastructure Bank (CIB) supports this effort by investing in housing enabling infrastructure across the country. By lending to both municipalities and developers, the CIB's tools can finance the upfront capital costs associated with building new housing, align the timing of repayment with revenues and take on part of the risk that a project may not generate revenues as and when expected. This paper shares insights from our ongoing work, highlighting the scale of the challenge and barriers holding back investment in the market. [1]

How much investment into housing enabling infrastructure is needed to support new housing supply?

Per-unit costs to build out enabling and supporting infrastructure may range from tens of thousands of dollars to greater than $100,000 depending on existing infrastructure capacity and housing density. Lower-cost estimates reflect developments in areas with surplus existing infrastructure capacity, requiring only connections to utility and road networks. These will likely make up a majority of small and medium-sized projects, indicating that enabling infrastructure costs will not pose a substantial barrier for advancing most housing developments. Higher-cost estimates reflect building on land without existing infrastructure, in regions without any serviceable/surplus capacity to accommodate growth and/or large developments with high upfront infrastructure expenses. It's likely only a minority of developments will face these higher costs, but those will likely include Canada's largest housing projects. Reforms to improve affordability (such as development charge reforms, expediting approvals, etc.) would likely not influence investment needs, but could increase the need for capital if expected funding sources were removed/repealed.

What barriers are limiting this investment?

Municipalities, municipally owned corporations and developers are responsible for delivery of housing enabling infrastructure. All face barriers/risks that limit their appetite to invest in housing enabling infrastructure, often leading to lengthy stand-offs, delays and cancellations of projects.

1 Shared with the CIB by developers, with costs varying by municipality

Barriers/risks to investment faced by municipalities and municipal utility corporations

1. Municipalities have requirements to balance their budgets and limits on the amount of debt they can take on. These factors constrain capital available to both spend and absorb cost overruns on construction projects, making municipal governments more risk-averse.
2. Available tax revenues to invest in infrastructure are insufficient to meet the needs of growing communities. Municipalities are generally unable to raise revenues at levels needed to finance all infrastructure projects in their pipeline, and grant funding from federal/provincial governments is not high enough to fully fund what remains. Additionally, grants are often earmarked for certain priorities and may come with conditions, limiting their potential to fill funding gaps.
3. In many cases, municipal infrastructure projects cannot borrow directly against expected future revenues, since there is uncertainty around how much and how quickly growth will occur. If overbuilding occurs, traditional financing structures place risks around future growth on current residents, which can lead to rate/tax increases. To avoid this, municipalities reduce the amount of forward-looking investment they undertake, despite the availability of alternative financing mechanisms that can reduce this uncertainty

Barriers/risks to investment faced by developers

1. Changes in home-building, mortgage financing and home sales/leasing markets impact demand for new homes, affecting some markets more than others. Given that lenders often require significant pre-sales and satisfactory returns, developers manage financing risk by delaying and/or halting projects during downturns.
2. Upfront capital costs for land and infrastructure investments are typically financed with a high share of equity, returned only when units are leased/sold. To manage risk and exposure, developers typically service sites incrementally, causing construction to move at a slower pace. This approach is less efficient, as it adds both time and cost to construction phases.
3. If a site has multiple developers, infrastructure investments are typically made by the largest developer or developer whose timelines are nearest term. This creates a “first-mover disadvantage,” as the initial investor takes on a higher capital and risk burden than their competitors. The initial investor then typically moves more slowly to manage their own risk, delaying construction for the entire development.

Which solutions could help resolve these challenges, and what are their strengths/limitations?

Solution	Strengths	Limitations
More contributions from federal/provincial/ territorial/ municipal governments	Familiar and widely used	Insufficient fiscal capacity to meet needs across all levels of government; may not address municipal challenge #2
Lending for infrastructure, repaid at lease/sale	Reduces risks of rate/tax increases associated with overbuilding; particularly useful for larger developments where timing misalignments between expenditures and revenues can affect returns	Will not improve per-unit affordability; likely not impactful for projects where infrastructure makes up a small share of total costs; may not be sufficient for all infrastructure needs without patient and flexible capital
Lending for infrastructure, repaid by user fees	Can increase capital available for investment without being impacted by fiscal constraints	Patient and flexible capital also needed to tie repayment to growth of users; f not, risk of overbuilding service capacity driving future tax/rate hikes remains

No single solution addresses all barriers, and each is better suited for certain project types. Lending repaid at the point of lease/sale could materially improve returns for larger and complex developments, particularly those with multi-year/multi-phase site remediation and infrastructure construction timelines. Lending repaid by user fees is most useful for forward-looking infrastructure investments that expand servicing capacity to accommodate and/or enable future growth[2], particularly if patient capital enables repayment to be tied to revenue generation. Overall, a blend of approaches will likely be needed to support the full range of developments being held back by enabling infrastructure costs. Additionally, no proposed solution can overcome the reality that broader market conditions are the dominant factor determining the pace and prospects for development – not infrastructure costs.

2 IMFG, 2023

How can the CIB play a role?

The CIB already plays a key role in financing enabling infrastructure for housing developments, with experience in transit, energy and water/wastewater projects. Its financing structures are designed to accommodate the cost sensitivities and risk profiles of diverse stakeholders and project proponents. With a specific focus on housing under its Infrastructure for Housing Initiative (IHI), CIB investment can adapt to a project's financial circumstances through different structures and is available directly to municipalities, developers and Indigenous communities. The ability to flexibly and creatively address project-specific barriers and risks is central to the CIB's approach to infrastructure investment. Our financing approach positions us well to work further in this space, supporting progress towards restoring housing affordability in Canada.

To build homes, Canada first needs roads and pipes

Housing affordability across Canada represents a significant challenge for communities and homebuyers. To restore affordability across the country, the Canadian Mortgage and Housing Corporation estimates 4.3M-4.8M homes need to be constructed in the next decade[3] – roughly twice as many as are expected to be built. While Canada potentially has the workforce and economic capacity to come close to this target[4], broader factors stand in the way. Countless studies and reports have identified market conditions, regulatory and policy barriers, and a host of other factors hold back the growth of housing supply. One of these barriers is a lack of infrastructure. Building virtually any new housing development in Canada requires connection to utility infrastructure (water and wastewater networks, electricity, broadband and natural gas connections) and roads. Supporting infrastructure like public transit and community services will also need to grow in capacity to account for new demand. These horizontal connections and capacity increases need to be built before vertical construction can begin on physical housing units. In other words, infrastructure investment enables the development of new housing units and the overall growth of housing supply.

Housing enabling infrastructure does not typically represent a significant share of a project's per-unit construction costs, but upfront capital expenditures for a minority of developments that are larger and/or more complex can impact feasibility.

Additionally, requirements to build out community-level infrastructure to service new homes can raise per-unit costs, as their current funding mechanism (development charges) require homebuyers to fund the full costs of infrastructure servicing the entire community. The parties responsible for this infrastructure – municipalities, municipal utility corporations and developers – face barriers to making these capital investments. These barriers/risks include fiscal constraints, coordination challenges and a need to manage risks around the pace and scale of future growth, to name only a few. Often, barriers/risks compound with other challenges facing housing developments, leading to delays or halts that can last years and cost millions (or more) in construction inefficiencies and foregone economic activity. Supports to reduce the upfront expenditures required to advance impacted developments, or more closely align the timing of spending and revenues, could help avoid these outcomes and alleviate one of the many bottlenecks slowing restored housing affordability in Canada.

The CIB regularly engages with municipalities, municipally owned corporations and developers through its Infrastructure for Housing Initiative (IHI), which offers financing for housing enabling infrastructure. This white paper is part of the CIB's ongoing efforts to share insights and analysis on its operating sectors, highlighting lessons learned from investing in infrastructure projects that enable housing construction all across Canada.

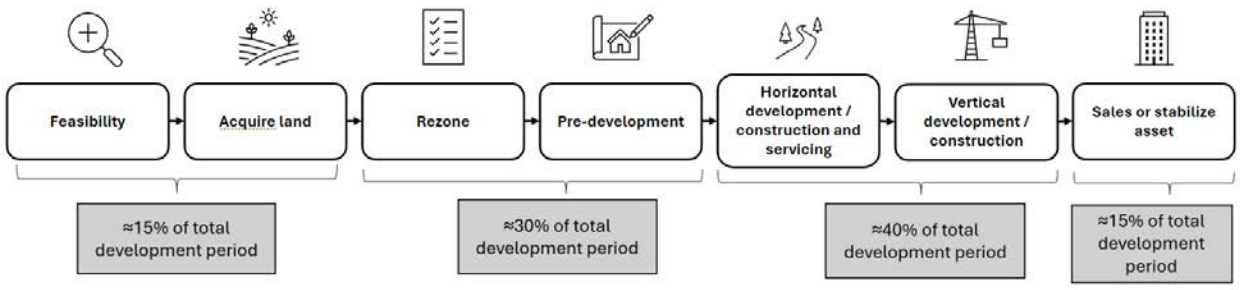
3 CMHC, 2025

4 CMHC, 2024. CMHC analysis estimates Canada could build roughly 377,000–465,000 homes annually if construction productivity were restored to historic levels. However, developers noted that downturns often lead to losses in workforce that can take years to rebound, reducing potential in the near-term.

How does enabling infrastructure fit into the development process?

Development of a greenfield real estate site, or a brownfield site where infrastructure upgrades are required, often follows the same general phases. As the key milestones outlined in Figure 1 below are achieved, the underlying value of the land on which development is taking place increases (assuming the broader property market is not experiencing a downturn). This is due to the increased probability that returns will be realized as each stage is completed, and the potential for changes in zoning and site approvals to boost future returns if greater density or subdividing is permitted.[5] The result of this increase in underlying asset value is that developers can borrow larger amounts against that asset, lowering their costs of financing and typically improving the return profile (i.e., forecasted earnings and payback) for the development. This process is referred to as land lift.

Figure 1: Stages of a housing development from feasibility study to lease/sale (stylized)



Source: Canada Infrastructure Bank. Percentage figures based on a stylized seven-year single-phase development timeline, meaning shares are not representative of any individual development.

Building housing enabling infrastructure is typically the first of two construction phases in a housing development. It is often referred to as "horizontal" development/construction, followed by the "vertical" construction of physical housing units. Cost overruns and delays at these two stages, or any other for a project, can adversely impact a project's rate of return. Return on capital invested into a development is typically generated in one of two stages: permitted and serviced land is sold, or housing units are built then sold and/or leased. Given that developing a site is a multi-stage process, investors make decisions whether to invest additional capital at each stage based on whether risk-adjusted returns remain attractive. Risk-adjusted returns must prove high enough to compensate for the following costs, including allowances for risk:

- Conducting market analysis and feasibility studies to determine the attractiveness of a given site
- Land and property acquisition costs
- Legal and administrative fees associated acquiring appropriate land use and building permits from relevant municipalities

5 Anchor Property Group, 2025.

- Costs of horizontal construction (i.e., site supporting and housing enabling infrastructure)
- Costs of vertical construction (i.e., costs of developing physical housing units)
- Administrative, legal or engagement fees associated with sales and leasing process for individual units

If a project is not expected to meet the required return threshold due to cost increases/overruns or external factors (such as low demand due to market conditions), developers may delay or decide not to commit further capital. Given the sensitivity of projects to broader market conditions, projects frequently start and stop as investors wait for shifts in external market conditions or the policy environment.

How does a lack of housing enabling infrastructure compare to other challenges facing home builders?

Developer surveys and the CIB's own ongoing discussions indicate the three primary factors limiting developments currently are broader market conditions (including both weaker demand for housing at current prices and escalating construction expenses), timelines associated with permitting/approvals and municipal fees and charges.[6] These challenges compound, creating significant pressures during periods of market downturn. Some developers have stressed that up to half of their current projects are non-economic in the current environment.[7]

There is no formal or informal data published on the extent to which these developments are being delayed or halted due to a need to invest in enabling infrastructure. However, effects likely differ depending on the size, complexity and level of existing service provision supporting a given development. For relatively conventional developments, site-specific housing enabling infrastructure represents a small cost. Statistics Canada's Building Construction Price Index indicates utility connections (defined as connections to existing systems with sufficient servicing capacity) account for roughly 2% of a residential building project's total cost and 6% of a non-residential building unit's total cost.[8] For these developments, the costs of enabling infrastructure are likely not materially influencing bankability.

For larger or more complex developments, or projects requiring significant offsite infrastructure, the picture can change. Costs to support expansion in local servicing capacity (such as trunk sewers, pumping stations, arterial roads, etc.) may require significant upfront capital expenditures and add years to construction timelines, funded by development charges that can represent more than 20% of project costs in certain municipalities. Significant site development/remediation can further add to capital requirements. These costs are often incurred years before revenues are realized. These combined upfront costs and delays in payback relative to expenditures, can be significant enough to impact risk-adjusted returns for individual projects.

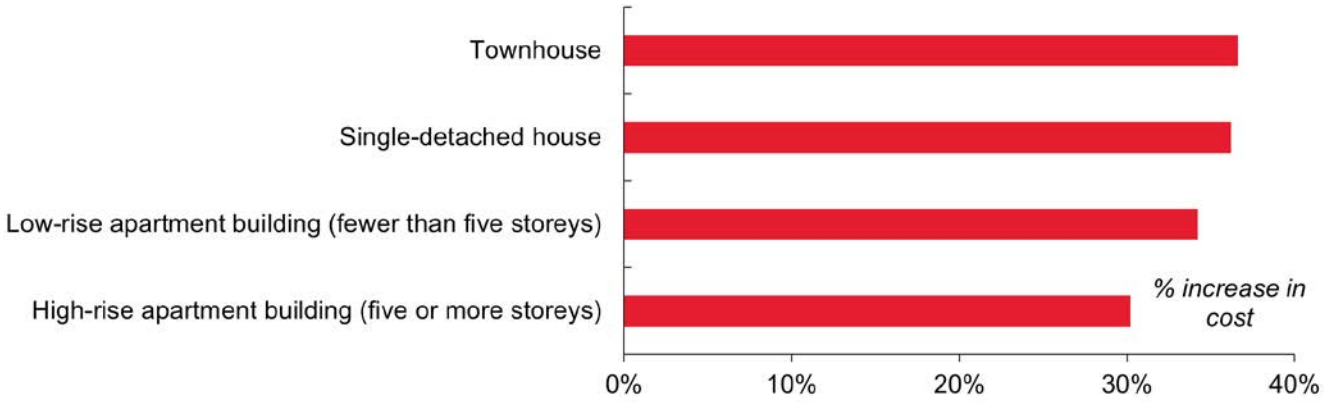
6 EY, 2024; Canadian Home Builder's Association, 2025; StrategyCorp, 2025.

7 CIB discussions with developers, 2025.

8 Statistics Canada, 2025a; Statistics Canada, 2025b. These figures represent only the cost of utility connections, not of building the broader infrastructure required to support these utility connections (i.e. road networks, wastewater processing facilities, electricity distribution, etc.).

In recent years, these price tags have grown. Construction costs have grown, increasing by more than 30% for utility connections to residential homes in the last five years (figure 2). Sticker prices have grown most for single detached homes and townhouses. The upfront nature of these capital costs, escalating price tags and long timelines associated with repayment loom larger during market downturns. Additionally, as with any investment, cost increases have material effects on a project's feasibility. As such, infrastructure investment requirements are likely adversely impacting the attractiveness of certain projects, even if they represent a minority of total developments, and it is just one of many headwinds.

Figure 2: Increase in construction costs for utilities to service residential housing (national average, 2020-2025)

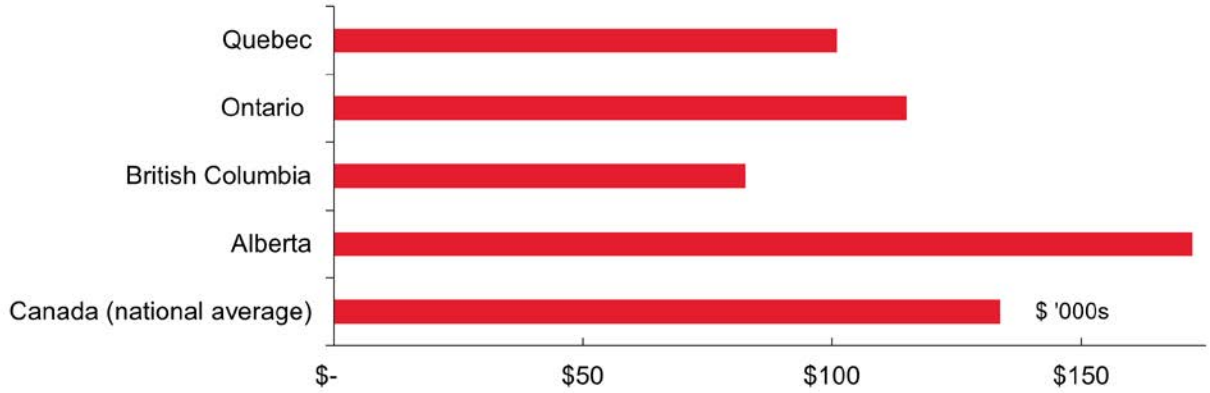


Sources: Canada Infrastructure Bank, Statistics Canada. Data from Building Price Construction Index, Q2 2020-Q2 2025.

How much infrastructure investment will be needed to support new housing?

Building enough enabling infrastructure to meet housing supply goals will require significant investment. Identifying precise figures is challenging given data availability, but rough order of magnitude and/or local estimates can lend some insight. Previous analysis from the Federation of Canadian Municipalities has identified that each housing unit in Canada is being serviced/supported by infrastructure that would cost roughly $100,000 to fully replace.[9] Using more recent data and adjusting for inflation in construction costs, this report estimates this figure is now upwards of $130,000 (figure 3).[10] If more asset types, such as community/regional infrastructure (i.e., emergency services, etc.) and electricity distribution networks, are included, analysis and external reports indicate this figure could rise by nearly 40%.[11] While a rough estimate, this number likely offers a "ceiling" on the potential costs required to service a new housing unit. It captures how much it could cost to fully build or replace the infrastructure needed to support an average housing unit in a region. This number would apply to developments built in regions without any existing infrastructure, developments whose infrastructure will need to be fully replaced/built from scratch and/or developments where there is not currently excess capacity, meaning significant new investment is needed. As an example, housing developments requiring significant expansions in public transit capacity (i.e., expansion of light rail/subway systems, construction of new stations, etc.), sewers and/or wastewater treatment plants may approach, reach or even exceed this ceiling.

Figure 3: Full replacement value of municipal infrastructure needed to support median housing unit (ceiling estimate)



Sources: The Canada Infrastructure Bank, Statistics Canada.

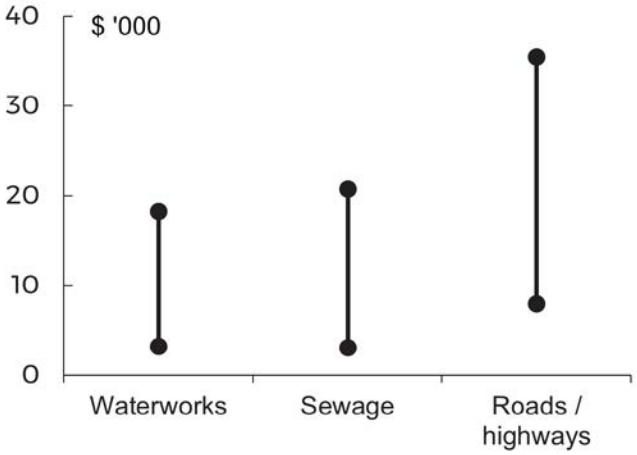
9 Fenn, 2024. Original estimate included all infrastructure needed to support linear (roads, wastewater, etc.) and community infrastructure (i.e., public transit, recreation centres etc.).

10 Recalculated using most recent data. Methodology in Appendix 1.

11 Fenn, 2024.

However, it should be emphasized that most developments in urban/suburban areas will not meet these conditions, making this figure a likely overestimate for the average housing unit built today. Infrastructure at a community-level (wastewater processing, roads, electricity distribution, etc.) is typically built with significant excess capacity in advance, which is slowly absorbed by new housing units over time. If current excess capacity is accounted for, estimates suggest that future housing may only require one fifth as much investment as is called for by the "ceiling" figure.[12] This number should be considered a "floor" for future developments given that current capacity will eventually be absorbed and more investment will be required.[13] A given unit may fall anywhere within this floor to ceiling range, varying based on market, local and environmental factors (figure 4).

Figure 4: Range of per-unit costs for housing enabling infrastructure



Sources: The Canada Infrastructure Bank, Housing Infrastructure and Communities Canada. Floor based on figures developed by EAM and shared with the CIB.

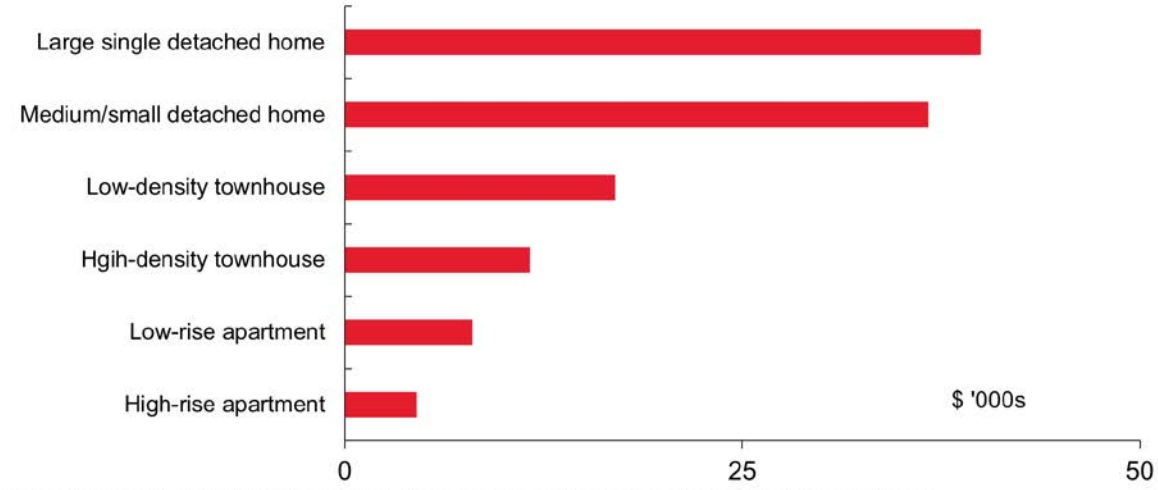
12 This estimate is developed using a methodology from the Economic Analysis and Modelling team at Housing, Infrastructure and Communities Canada. This methodology examines historic investment patterns and accounts for factors such as for current infrastructure quality, shared use between housing and businesses and density. It is detailed in the Appendix. It should be noted that this figure is reflective of historic investment patterns, which developers identified could represent an underinvestment in servicing capacity required for future growth, given requirements to upgrade historic systems that do not meet current regulatory standards.

13 This floor figure also does not include community-level infrastructure (i.e., public transit, recreation centres etc.) and excludes certain forms of linear infrastructure, including components of electricity distribution networks.

One factor influencing where it falls within this range is the density of housing units and neighbourhoods.[14]

An oft-cited study for Metro Vancouver identified capital costs for utility and road connections to single-family detached homes can be up to 5-9x more expensive than apartments on a per-unit basis (figure 5).[15]

Figure 5: Partial per-unit cost comparison for housing enabling infrastructure by unit type in Vancouver



Sources: The Canada Infrastructure Bank, Metro Vancouver. Costs only reflective of roads, water and wastewater.

Even if several factors combine to drive per-unit costs towards the floor end of this range, it is likely that overall investment needs will be orders of magnitude higher than what grants can support. Additional sources of capital will likely be required, particularly for individual projects whose higher infrastructure costs could prove a barrier for investment.

What barriers do developers and municipalities face in delivering infrastructure requirements?

Redressing the barriers to capital deployment is essential to ensuring larger and more complex projects can move forward. Municipalities, municipally owned corporations and developers bear these costs on their balance sheet, and all face barriers/risks when making significant capital investments into infrastructure projects. Challenges are detailed in Tables 2 and 3 below.

14 Metro Vancouver, 2023. It is worth noting that even if per-unit costs are lower on larger, denser developments, overall capital costs are typically higher. Ratios also may not hold true in the case of large infill developments in urban centres.

15 Metro Vancouver, 2023.

Table 2: Barriers/risks faced by municipalities/municipally owned corporations to financing housing enabling infrastructure

Barrier/Risk	Description of Impacts
Limitations on overall capital available for investment due to fiscal ceilings and budget constraints	Municipalities own nearly three quarters of core public infrastructure in Canada[16] and are responsible for capital and operating expenditures to build/maintain these assets. These responsibilities increase the challenges imposed by limits on taxation authority and fiscal constraints. One is that Canadian municipalities face requirements for balanced budgets. This creates annual fiscal constraints around how much a municipality can spend and/or invest in a given fiscal year, based on their revenue estimates. Municipalities in a majority of provinces and territories also face annual repayment limits set by regulations or provincial authority, represented as a target ratio of debt-service costs to revenues, debt to revenues, or debt to assets.[17] These limits serve as formal or self-imposed ceilings for borrowing and taking on debt often requires separate provincial approval if it involves exceeding targets.[18] Annual repayment limits are often set at very conservative levels (often 25–30% of own-source revenues), partly due to the challenges associated with increasing revenues through property taxes, development charges and user fees.[19] These two factors increase the risk associated with cost overruns and revenue shortfalls on projects, as additional borrowing to finance overruns could require sourcing additional revenues, prompt a provincial review of a municipality's repayment limits, or create challenges for financing future projects.[20] This fiscal reality leads to risk aversion around infrastructure projects with long timelines, revenue uncertainty and/or novel technologies/ approaches.
Municipal infrastructure needs may be higher than what tax revenues and federal/provincial grant programs can support under current models	Despite the fact that public infrastructure spending from all three levels of government as a share of GDP has been increasing since the start of millennium,[21] there is little evidence spending has kept up with needs. Further increasing spending, drawn from taxpayers and ratepayers in one form or another, faces challenges. Municipalities risk creating political and affordability pressures if they try to rapidly raise revenues, typically leading them to move slowly and/or seek alternative funding sources. A common alternative is federal and provincial capital grants. While grants offer a funding alternative that reduces the burden on local taxpayers/ratepayers, they are not a panacea. Grant capital is limited and funding windows are typically oversubscribed. Municipalities that apply often do not receive support, and those that do may not receive sufficient capital to finance all required infrastructure needs. Additionally, funding envelopes for municipalities are often earmarked for spending on particular projects or priorities. This implies that making grants available may lead to a reprioritization of municipal capital projects based on funding availability, not necessarily based on potential benefit/ community need.[22] Some funding envelopes may also only be accessible if conditions are met by recipients, including changes in policy that could reduce future revenues and their future capacity to borrow. This could reduce the attractiveness of funding supports, leading to low uptake.

16 Measured by replacement value (Statistics Canada, 2024).

17 Tassonyi & Conger, 2015. Fenn, 2024. Other provinces/territories also impose ARL/debt/debt-service limits, but they are set instead by ministerial approval, or their respective provincial municipal boards.

18 Tassonyi & Conger, 2015.

19 Slack & Tassonyi, 2017, Government of Ontario, 2022.

20 Government of Ontario, 2022.

21 CIB, 2023.

22 Tassonyi & Conger, 2015.

Barrier/Risk	Description of Impacts
"Growth pays for growth" inadvertently limits investments in assets required to support growth and limits flexibility to alternative financing models	The "growth pay for growth" principle indicates that infrastructure to support new developments should be fully funded upfront. It may also imply additional capital will be required from parties advancing a project to support regional infrastructure investments. However, under traditional financing models, this principle can inadvertently create a brake that slows growth. Municipal projects typically cannot borrow against their expected future revenues, given the uncertainty of how much and how quickly they will grow. If infrastructure is "overbuilt" (a scenario where infrastructure does not generate expected revenues due to lower population and/or economic growth than expected), higher costs are often then passed through to local ratepayers/taxpayers, or borne by the municipality in another form. To mitigate the risk of overbuilding, development is traditionally financed by revenues already collected from other completed projects. This implies municipal investment typically remains at a relatively steady level over time, with little scope for acceleration or supporting growth, barring increases in revenues such as property taxes and DCs. In scenarios where economic growth does occur, this bottleneck may still inadvertently slow it down or prevent it from rapidly accelerating, which could be particularly challenging in scenarios with significant population growth. The impacts of this brake increase if paired with a lack of support for alternative revenue models, such as user fees or tolls, that would offer financiers greater certainty of future revenues and repayment (provided capital was sufficiently flexible and patient).

Table 3: Barriers/risks faced by developers to financing housing enabling infrastructure

Barrier/Risk	Description of Impacts
Sensitivity to market conditions can lead to both periods of boom and bust and projects stopping and starting	Changes in demand within markets for home-building, mortgage financing and home sales/building lease are linked to economic conditions, outlooks and policy decisions.[23] Periods of elevated uncertainty around the economy's performance and/or outlook and downward revisions to the trajectory of population growth, typically dampen demand for home purchases. Given that lenders often require a large number of pre-sales (sometimes 70–80% of units) and satisfactory returns,[24] market conditions significantly impact a developer's ability to finance a project. On the supply side, rising interest rates and inflationary pressures also raise the costs of capital, labour and materials for developers. These higher costs, exacerbated by decades of low productivity growth in the construction sector,[25] show up in higher home costs and mortgage rates, which also reduces demand for housing. Given adverse impacts of market downturns on both supply and demand, investors and developers often mitigate risk by waiting until conditions have improved before committing further capital to a project, frequently leading to delays or halts in construction.

23 CHBA, 2025a.

24 StrategyCorp, 2025. Exact pre-sale requirements vary by unit type and census metropolitan area (CMA).

25 Marion, S. 2024.

Barrier/Risk	Description of Impacts
Upfront capital costs are equity-financed, which can impose balance sheet constraints	Developers typically finance investments in land and enabling infrastructure with a higher proportion of equity, with returns only realized through revenues generated at the point of sale/lease (including pre-sales). Developers therefore face long lead times to realizing returns on capital invested for construction. This incentivizes them to delay investment, often developing sites individually or in stages, as a way to manage risk exposure. Moving slowly may also allow developers to recycle revenues from pre-sales/sales/leases on one site to finance construction on the next. Managing risk exposure in this incremental manner leads to slower/less efficient construction and a reduced appetite to build out developments for entire sites at the same time. Although prevalent amongst small and medium-sized developments, this challenge is most visible for large, complex developments, where infrastructure costs may be in the hundreds of millions, and years of site preparation or remediation may be needed before construction can start.
Sites with multiple developers create coordination challenges	On project sites and in regions where multiple developers are present, a first-mover challenge emerges. In cases where developers are responsible for infrastructure investment/contributions, capital outlays are typically borne by the first developer (typically the proponent whose development timelines are the nearest term and/or balance sheet is largest). This capital may be used to directly fund infrastructure, or to pay the municipality to construct it for the entire site. This capital outlay is then typically repaid by other developers over time, either as direct repayments, or through the municipality as an intermediary. This creates a disincentive for the first developer to act, as they experience a "first-mover disadvantage" by taking on a higher capital and risk burden than their competitors. To manage this risk, developers typically build at a slower pace, slowing construction on the project as a whole. "First-mover" developers also have an incentive to wait until there is either greater cost-sharing between developers or additional municipal financing.

Many of these risks, particularly those related to fiscal rules and market conditions, reinforce and compound other barriers. Attempts to manage risk by delaying or halting projects can also add costs, as stopping construction reduces efficiency and does not subsequently pause property tax and insurance payments. If sufficiently long, delays can reduce the overall bankability of a given project by both adding additional costs and delaying payback, lowering the rate of return.[26]

26 StrategyCorp, 2025.

Avoiding a housing development stalemate

The combination of misaligned incentives, capital constraints, sensitivity to broader market conditions, and limited embracing of innovative financing models detailed above can lead to stand-offs when deciding who will pay for a given project's infrastructure, although this is not always the case. In smaller municipalities, the municipality typically finances infrastructure, given that they lack sufficient scale to have bargaining power over developers. Developers may also be smaller, and balance sheet constraints could limit their ability to bear infrastructure costs. However, in larger municipalities, both parties are larger and better capitalized, and investment responsibilities are often determined through negotiation. A common solution for large municipalities in Ontario and British Columbia is to ask that a developer finances infrastructure, then offer some measure of credit or rebate on a project's costs (either for development charges or fees for land use changes).

In the absence of this type of agreement, both parties have an incentive to attempt to wait out the other. Municipalities can wait for federal or provincial grant programs that allow them to build the required regional infrastructure without taking on debt and/or raising property taxes. However, amounts allocated under cost-sharing formulas are often not high enough to fully finance projects, and waiting can take years and several rounds of applications to grant programs before their project is one of the lucky few selected (if it is ever selected). Yet this approach persists because, if successful, it removes a need for the municipality to bear the full cost of an investment themselves, partially or fully mitigating the fiscal constraints described in Table 2. Developers, by contrast, can opt to sit on land, either idle or developed, with an eye towards achieving their desired outcome in negotiations. During this period, the underlying value of land may increase sufficiently to offset ongoing operational and insurance costs, limiting losses associated with delays.

Comparing potential solutions to increase capital available for investment

The barriers detailed above will make it more challenging to invest in housing enabling infrastructure for impacted developments. Alternative financing models could help overcome barriers to support these projects. The use of alternative models will grow in importance if reforms to improve affordability such as repeal/removal of development charges are pursued, which could reduce capital available to support infrastructure investment. This white paper considers three potential sources of capital, identifying which barrier each could help overcome and their potential strengths and limitations, in Table 4 below:

Table 4: Comparison of potential solutions to increasing capital available for housing enabling infrastructure investment

Potential solution	Which barriers would this help overcome?	Strengths	Limitations
Larger contributions from federal, provincial, territorial and municipal governments to finance infrastructure	Municipal #1 (fiscal constraints/ limits on capital available for municipalities)	High degree of familiarity, given use in current fiscal framework	Fiscal cost would be unrealistically large if used as sole instrument (particularly if costs are near ceiling); may not address challenges described in municipal barrier #2.
Lending to offset capital cost of onsite enabling infrastructure, repaid at point of lease/sale	Municipal #1 (fiscal constraints for municipalities), Municipal #3 ("growth pays for growth" limits forward-looking investment), Developer #2 (upfront capital costs for developers are largely equity-financed) and Developer #3 (sites with multiple developers create coordination challenges)	Improves timing alignment between capital deployment and revenue realization, enhancing return profile (particularly useful for larger/ complex projects); no additional risk of overbuilding; viable regardless of unit type and mode of construction	Limited/low value for overcoming barriers on projects where enabling infrastructure accounts for only a small share of construction costs; does not improve per-unit affordability for home buyers unless borrowing costs are lower than financing costs of alternatives; does not overcome barriers for financing community infrastructure; will not derisk any project sufficiently to overcome unfavourable market conditions.

Potential solution	Which barriers would this help overcome?	Strengths	Limitations
Lending to finance regional and/or utility network infrastructure, repaid by user fees over time	Municipal #1 (fiscal constraints for municipalities), Municipal #2 (structure of grant programs can limit use in advancing municipal priorities), Municipal #3 ("growth pays for growth" limits forward-looking investment)	Can overcome fiscal constraints without increasing revenues; can increase overall pace of development; more directly supports "growth pays for growth" principle by aligning repayment and revenue timing and targeting impacted beneficiaries; grows pool of capital available for infrastructure investment	Not relevant for all infrastructure types; risk of overbuilding can still lead to fiscal conservatism if municipality feels they would be guarantor or that they may need to raise taxes/ rates to recoup; requires lender patience/ flexibility on repayment timelines, as user fees will be lower before surplus capacity is fully absorbed by growth.

Each solution can overcome some of the barriers listed above, but none can overcome all of them, implying there is no silver bullet for supporting housing enabling infrastructure. Rather, different approaches are better fits for certain types of developments. For developments where enabling infrastructure accounts for a small share of overall construction costs, lending tools will likely have little impact on return profiles. For larger developments, particularly those whose infrastructure could cost hundreds of millions of dollars, upfront lending repaid at the point of sale/lease (such as that offered by the CIB) could materially increase a project's attractiveness. Lending repaid at the point of lease/sale could also address more closely align timing of expenditures and returns, reducing risk on equity invested. Increasing the supply of grant capital, by contrast, would not offer these benefits to larger projects.

The optimal mix of tools/solutions will vary based on which projects are advanced in the coming years, and which forms of supports (if any) are best suited to advance them. Broader efforts to reform municipal fiscal rules, or greater use of off-balance sheet financing tools for municipalities, would also impact available solutions. Additionally, no solution identified above would redress broader market conditions (i.e., developer challenge #1). Sensitivity to shifts in market demand remains a barrier outside the control of any single government or investor, and no individual intervention can fully mitigate its effects.

Concluding thoughts

Not all housing developments in Canada will be impacted by the costs of housing enabling infrastructure, but those that are will likely be materially affected. Ensuring the right options are readily available for use will allow impacted developments to select the financing tools that work best for them. One solution—offering lending tools repayable through future revenues—can help lower the barriers for developments with high upfront costs, lengthy payback periods, or that are currently caught in negotiation stalemates. If capital is sufficiently flexible and patient, repayable lending can also help offset the risk of future tax/rate increases that accompany municipal investments into housing enabling infrastructure.

The CIB's financing model is well positioned to support these projects. The CIB's work in the sector has already financed projects across the country, and the organization supports and advises a wide range of projects led by municipalities, developers and Indigenous communities. As the CIB continues working to support restoring housing affordability in Canada, the organization commits to sharing insights and analysis with the broader market.

Appendix: Methodology used to identify infrastructure investment needs

Ceiling per-unit estimate used in this report

This approach is replicated from a previous study by the Federation of Canadian Municipalities but has been updated with more recent data on infrastructure levels and construction price inflation. This analysis divides the estimated replacement level of municipally owned infrastructure from Statistics Canada's 2022 Core Public Infrastructure Survey by the number of private dwellings in Q2 2022. The estimated replacement cost of municipally owned infrastructure was adjusted for inflation using Statistics Canada's Building Construction Price Index.

Floor per-unit estimate used in this report

The methodology used to assess the "floor" figure used in this report was originally developed by the Economic Analysis and Modelling team at Housing, Infrastructure and Communities Canada. This methodology examined historic investment patterns over a thirty-year period to estimate coefficients of how much infrastructure investment occurred per housing start by asset type and province. In this study, the approach is further structured around a stock-based framework, estimating infrastructure requirements on a per-housing-unit basis and focusing on the expansion of the housing stock rather than solely on new construction activity, while explicitly accounting for differences in housing density as well as the sharing of core infrastructure between residential and non-residential uses. These coefficients were then used to project future spending patterns, adjusting for inflation and assuming density levels remained relatively similar to the current mix. Additionally, investment required to meet housing targets was estimated and compared to a BAU trajectory, to better understand investment required by asset type.

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