



Vancouver Regional Construction Association
General Contractor Division Meeting MINUTES

Date: 3:30 – 5pm, November 2, 2023

Location: Virtual via Microsoft Teams

Attendee	Company	Div	Attendee	Company	Div
Oliver Nicklin	Beedie Construction	GC	Ronan Deane	North America Construction	GC
Scott Adkins	PCL Constructors Westcoast Inc.	GC	Stephan Lacombe	Pomerleau Inc.	GC
Atila Reshad	Cape Group	GC	Cam Roy	RAM Construction Inc.	GC
Craig Archibald	EBC Inc.	GC	Jeff Knoblauch	RAM Construction Inc.	GC
Scott Fletcher	Graham Management Services LP	GC	Moe Forouzan	Signia Construction Ltd.	GC
Danny Emerson	Kindred C	GC	Peter Rosenrauch	Syncra Construction Corp.	GC
Kenny Dempsey	Kindred C	GC	Craig Hewitt	Syncra Construction Corp.	GC
Leandross Henderlin	LJH Construction	GC	Brad Stevenson	Unitech Construction Management Ltd.	GC

Guests

Adam Cywinski, BuildForce Canada Consultant

Katy Fairley, BCCA Industry Standard Practices Consultant

VRCA Staff

Jeannine Martin, President

Cecile Lopez, Operations Manager

Erin Wormald, Member Experience Specialist

Action Items

Item #	Owner	Action	Timeline
GC231002-1	VRCA	BuildForce Outlook re Unemployment Numbers Get applicable BC-specific reports from BuildForce & CCA and share them with the group Note: See Attachments for the presentation and BC-specific reports from BuildForce Canada.	Completed

GC231002-2	VRCA	Collaborative Delivery Models Look at opportunity/strategy on the education side, perhaps a session or grouping of certain courses.	TBC
GC230619-1	VRCA Members	Topic #1 – General Contractors being Responsible for the Coordination of Drawings from their Consultants. <ul style="list-style-type: none"> Provide Katy Fairly Contracts from Private Owners but more specifically Public Sector Buyers of Construction Services that have language that is favorably clear for delineation of responsibility and/or anything we see our clients omitting that we want added back into the contract. katy.fairley@bccassn.com 	Ongoing

AGENDA ITEM	DISCUSSION
1. Welcome & Introductions	Roundtable introductions of attendees.
2. Buildforce Industry Outlook	<p>BuildForce Presentation: “The Road Ahead, Demand drivers of construction activity: 2023-2032.”</p> <ul style="list-style-type: none"> Last year there were 236,000 employed in a variety of construction trades and professions in BC; as far as construction demands, we were already at a really high level back in 2019, which slowed down with Covid in 2020; in 2022, there was a big upswing in residential demands, supply couldn’t keep up and workers didn’t come back at the same pace Looking at the road ahead: big driver of demand in BC and across the country is population growth; BC’s population is growing but ageing. We continue to see the pressures of the ageing population to areas like healthcare facilities, renovation demands, etc. Immigration: 2023-2025 – as of 2022, about 1/3 of BC’s workforce is made of immigrants. This is above the Canada average. Although the overall workforce representation of immigrants is high and rising, the construction industry does not get that same share (closer to 19% overall in Canada, 25% in BC). Highly skilled immigrants (immigration priority) are more likely to find work outside of the construction industry. Rental vacancy rates have been on the decline since the end of the pandemic; national vacancy rate in 2022 was 1.9%. BC has the lowest rental vacancy rates in the country. Some challenges are increased investment on rental housing, high-borrowing cost, labor supply, demands on new home construction. Electrification in the residential sector – switch over to heat pumps from fuel furnaces will impact the industry. Increase in residential demand will continue to be significant; the non-residential side has been a big driver of demand as well with a pipeline of big projects such as hospital projects. Big risks: competition for younger workers, immigration levels will remain strong and will add to housing demands, electrification will place significant demands on res & non-res renovation/maintenance workforce, new housing demands will remain high, immigration policies must better align with domestic labor force requirements – better pathways for skilled trades immigrants required

	<ul style="list-style-type: none"> • Demand levels are expected to remain high, we need to work collaboratively with the government so that these acute labor shortages do not become chronic <p>Q&A and Comments:</p> <ul style="list-style-type: none"> • Unemployment rate is low, but we do not have people in the industry, where did people go? A: accelerated retirement, people decided to move to more affordable regions. • Numbers are BC-based, is this unemployment phenomenon across the province? A: Buildforce is in the process of preparing the forecast within the LM specifically BC, report will be available within the next few weeks. <ul style="list-style-type: none"> ○ <u>Action Item:</u> JM to get BC-specific reports applicable to this meeting from BuildForce & CCA and share them with the group • What’s driving the adoption of people in the construction market if population isn’t the issue? A: The Road Ahead slide - Graphs show population of over 65 is rising, 15-24 group shows decline from 13% in 2013 to 9% in 2033. What is constant is the 25-54, all population growth across Canada is driven by immigration; however, the construction industry does not get that same share with immigrants finding work outside of the construction industry. • Is there data on wages in the construction industry relative to other industries – if there is a challenge with residential affordability and that is driving people to look at other industries because they are better compensated and can afford to stay where they are, maybe that’s the pressure here, perhaps the residential issue needs to be resolved. A: there is data, construction doesn’t come across as a low-paying sector to work in compared to others, immigrants who work in construction do better overall than immigrants who go to other sectors but that’s not really promoted. • We continue to face labor shortages and attracting talent, this is something that VRCA can do, VRCA should be the voice to the government, at least try to make that proportionate: bring the 32% to the construction workforce, we need homes for people to be able to live and places for people to work. We also need people to be able to afford to live and work there.
<p>3. VRCA/BCCA/CCA Updates</p>	<ul style="list-style-type: none"> • VRCA – JM almost 90 days at VRCA (Nov 8). Some recent highlights: • new advocacy update sent out on November 1 - where we are on building visibility, building the platform to talk about issues, and re-creating connections with the local government • stabilizing the office – working toward a plan and a stable future with staff, just made an offer to events manager to make sure we can support everything we want to do in the new year • JM in Ottawa next week with CCA for Hill Day, will have meetings with MPs together with other RCA’s and discuss issues important to construction including prompt payment, immigration, housing shortage, labour market, etc • Luncheon will sell out today, please connect with the VRCA team if you are having challenges getting tickets so you could be added to the waitlist

CCA – KF provided some updates on behalf of CCA

- Hill Day next week
- CCA is hosting a Construction Management webinar to be hosted by the General Contractors National Advisory Council of which BC has a couple of reps on. The webinar is for those who are new to Construction Management as well as consultants and owners. Link below:
 - **Construction Management Webinar:** the Canadian Construction Association is hosting a free one-hour webinar on Construction Management 10am Pacific Time (1:00 p.m. ET) on Tuesday, November 21, 2023. [Register here.](#)
- CCA’s annual conference will be on the 2nd week of March in Punta Cana, early bird ends on November 17th

BCCA

- Recently had an Owners Only session attended by 200 public sector owners from across BC, talked about progressive design build & alliance delivery methods; received good feedback and turnout. There will be another one coming up at the end of November – Insurance: The Dark Arts of Construction.
- Prompt payment update – province has been shamefully dragging their feet on this and have asked BCCA to put together a comparative analysis of the various prompt payment legislations across Canada. BCCA engaged a law firm out of Toronto to undertake this work, so far it is a 143-page draft to be shared with the government and members once that is ready.

Q&A and Comments:

- Any takeaways or themes from the owners only meeting? A: Overarchingly, it seems like there is this need & desire for these owners to have education. 4.5/5 happiness rating for the session, which is usual. There were many questions on alliance and progressive design build, they were thirsty for anything; it’s great that we were able to position ourselves with our regional partners to give this to them.
- Comment re concern on municipal attendees about getting ideas on projects: Echo concern on municipalities, as an industry we need to create the same template so we can operate across different municipalities
- What was the makeup of attendees? A: Port of Metro Vancouver showed up in droves, all the health authorities, BC Housing had a decent amount of attendees, BC Hydro was a big attendee, Metro Vancouver, Translink, bunch of school districts, Delta, no one from the City of Surrey. It has become the cornerstone of owner advocacy and engagement with the public sector.
- What is your members’ experience in alliance and progressive design build? A: BCCA does not have a preference on delivery methods, we just want it applied to the right project and used in the right way; have not heard anyone say anything negative about progressive design build.
 - SA: We’ve done few progressive design builds, PDB should be replacing the conventional DB model; alliance we are just starting to get into, looks weird to be honest, perhaps because it values things that are not traditionally valued in construction like genuine collaboration and openness.

	<ul style="list-style-type: none"> ○ RD: Public clients have their toolbox, they open it up and pull lumpsum all the time; just introduce them to the value of other tools, you want them to try these other tools on projects that can be modelled ○ CA: great to have some discussion about different contract models, shares the risks fairly. The acknowledgement of design costs - some of the owners cap the design costs fairly low and there does not seem to be a reality in terms of expectations of what some of the design fees are. As contractors, we want higher levels of design because that mitigates our risks; but there is a higher increase in cost and some of the owners are not willing to pay the full design cost. So, the contractor is carrying the risk.
<p>4. Division Updates</p>	<p>Design Risk Ownership</p> <ul style="list-style-type: none"> ● ON: Follow up from the last discussion re GC’s being responsible for the coordination of drawings from their consultants and taking on some level of design ownership or design risk is becoming more onerous <ul style="list-style-type: none"> ○ KF: In a lot of contracts, delegating design could be as simple as removing some of the baseline clauses in a CCDC2 or CCDC-5B contract. Somebody reached out about delegated design when it comes to structural - that concept has existed for some time, delegated design exists with M&E frequently. If you talk to owners privately, they are the first ones to complain about the quality of the designs coming out ● Convincing owners to move to a different contract or project delivery model / the most expensive kind of engineering is cheap engineering <ul style="list-style-type: none"> ○ KF: We have a great relationship with ACEC, AIBC is a regulator and views themselves as such – important to build relationship with them, the owners listen to them before anyone else ● ON: what is the contracting community looking for that VRCA, CCA, BCCA can help them with, what is going to help here? What are people really looking for in terms of assistance? ● SA: continuing the consideration of delivery models helps. When the consultants are working for someone else other than the client, contractors are happy with the deliverable piece because we push a little bit harder, pay more attention to the details. On removal of the language, this may not solve the problem but would take the explicit liability off of us. ● BS: what VRCA can do for contractors: 1) learning how those collaborative delivery models work, and 2) promoting those as much as you can and providing the education will help our industry grow. With collaborative delivery models, you decide as a team who is the best person to do the design or this work and because you are deciding as a team the whole group takes the risks. <ul style="list-style-type: none"> ○ ON: agree but comes down to clarity all the way through about what each party is responsible for, just have to be clear to everyone what everyone is doing ○ JM: maybe there is an opportunity on the education side or strategy on how to educate everyone, perhaps a session or grouping of certain courses, will take that away

	<ul style="list-style-type: none"> ○ RD: maybe it's framing the message, talking about it as a way to manage risks, frame it as a risk discussion rather than as a "you are not doing it right" discussion.
<p>5. Other/New Business</p>	<p>Contracts</p> <ul style="list-style-type: none"> ● JM: if indeed you come across a contract or a procurement that has concerning language, one of the things we can do is help navigate that for you ● ON: concern on supplemental conditions, risk transfer that was being pushed down, are people continuing to see that, is it getting worse/better? In certain parts of Canada, it feels that the supplementals are bigger than the CCDC document. Why doesn't the CCA update the documents to include these rather than having a massive supplementals section? <ul style="list-style-type: none"> ○ KF: the advent of CCDC-2 2020 gave lawyers an opportunity to add more; it's 40 pages long, which is 12 pages longer than a standard CCDC contract. It's a topic that is building; but everyone agrees that it is still better to use CCDC even with several pages of supplementals. ● ON: it would be useful to see if there are generally accepted terms out there that exist in supplementary conditions and could those make it into the standard document to cut down the size of the supplemental conditions <ul style="list-style-type: none"> ○ KF: there are, they are called BCDC. BCCA provides secretariat services for it, those are endorsed by ACEC BC and AIBC. We have standard supplementaries that are intended for public sector owners, but then again lawyers like to write and owners listen to their legal counsel. We have them in BC - https://bcconstructiondocuments.ca/bcdc-2-2022/ ● KF: It's more crazy with the public sector, because it's not their money; truly wild that they do not care. BS: As a contractor, you have the ability to walk away, maybe they are not the right owner for you. <p>Event: Member New/Renew Mixer - VRCA Office, Thursday Nov 9th from 7:30-9am</p> <ul style="list-style-type: none"> ● anyone is welcome, drop in for coffee if you are around the area. VRCA will provide updates on member benefits, educational offerings, and advocacy efforts.

Attachments:

- [BuildForce Presentation - The Road Ahead - Demand drivers of construction activity 2023-2032](#)
- [Buildforce Report – 2023 BC Construction & Maintenance Looking Forward](#)
- [Buildforce Report](#)

The Road Ahead

**Demand drivers of construction activity: 2023-
2032**

Presentation to the Vancouver Regional
Construction Association

By Bill Ferreira



British Columbia: Industry facts, 2022

236,000¹

- Number of men and women employed in a variety of construction trades and professions

Building Construction: 83,500 (35%)

Residential: 69,000
ICI: 14,500

9.7%²

- Construction contribution to the country's gross domestic product (GDP)

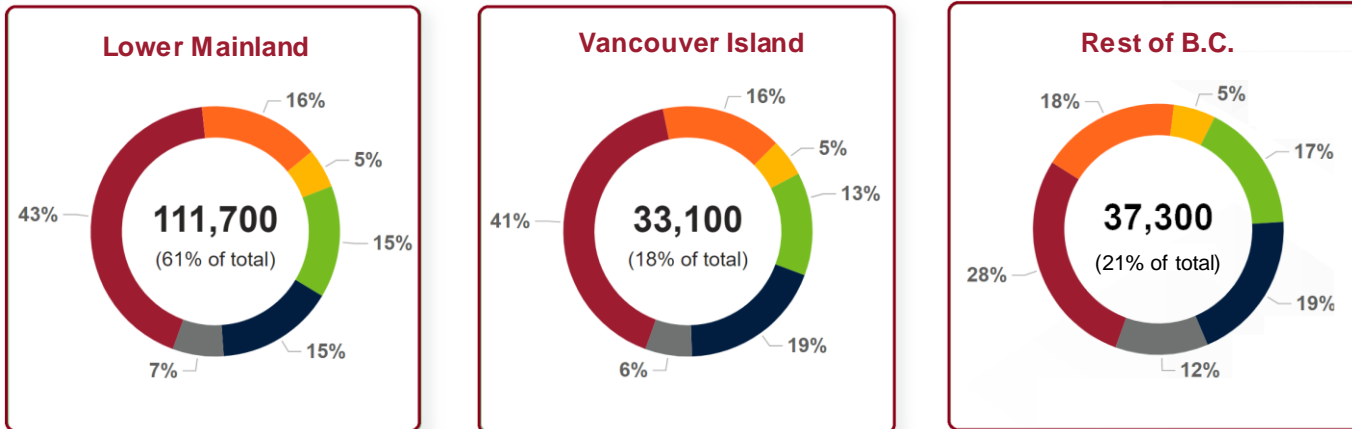
Civil Construction: 22,900 (10%)

Roads, Highways & Bridges: 12,200
Heavy & Civil Engineering: 2,500

1 in 12³

- Number of workers in the total labour force employed by the construction sector

September 2023
unemployment rate was
2.8%



Legend: New housing (dark red), Renovations (orange), Residential maintenance (yellow), ICI** buildings (green), Engineering (dark blue), Non-residential maintenance (grey)

Specialty Trades: 129,500 (55%)

1. Source: Statistics Canada. Table 98-10-0448-01 Industry groups by class of worker including job permanency, labour force status, age and gender: Canada, provinces and territories, census metropolitan areas and census agglomerations with parts
 2. Source: Statistics Canada. Table 36-10-0402-01 Gross domestic product (GDP) at basic prices, by industry, provinces and territories (x1,000,000)
 3. BuildForce Canada calculation based on the construction share of total average provincial labour force in 2022

The road ahead

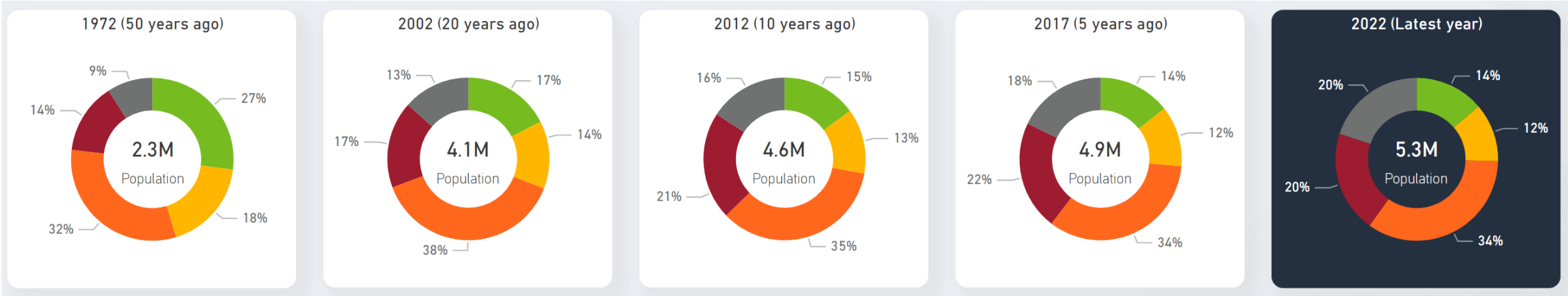
The road ahead

Demographics

● 0 to 14 years
 ● 15 to 24 years
 ● 25 to 49 years
 ● 50 to 64 years
 ● 65 years and over

Key Future Demands

- Renovations to aging in place
- Healthcare and senior care facilities



Baby boomers: 8-26

Baby boomers: 38-56

Baby boomers: 48-66

Baby boomers: 53-71

Baby boomers: 58-76

1972: 3 individuals under 15 for every 1 over 65

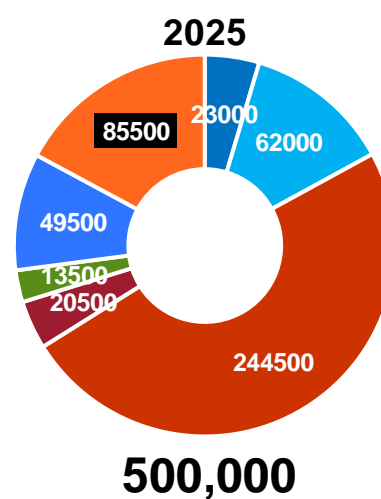
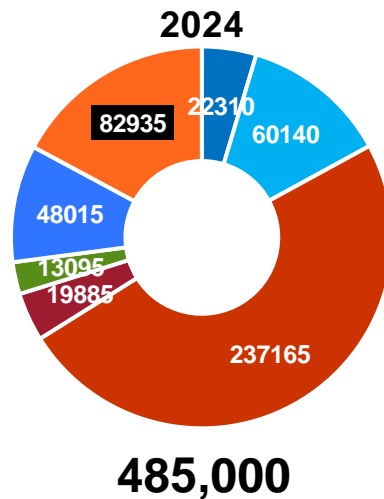
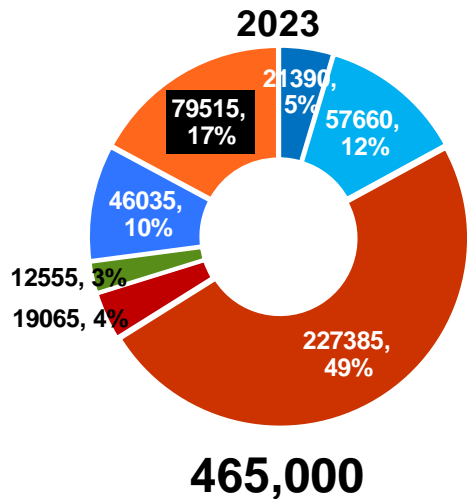
2022: 20% of population 65+ -- only 14% under 15. 20% between 50 and 64.

Source: Statistics Canada. Table 17-19-0005-01 Populations estimates on July 1st, by age and sex

Immigration: 2023-2025

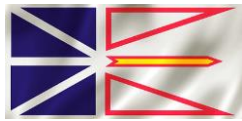
Key Future Demands

- New homes
- More core public infrastructure (roads, sewers, water, energy)
- Hospitals, schools and small commercial buildings



The road ahead

Rental vacancy rates (%): CMHC 2022 Data



Newfoundland and Labrador	2.9%
St. John's	2.9%



Prince Edward Island	0.8%
Charlottetown	0.8%



Nova Scotia	1.0%
Halifax	1.0%



New Brunswick	1.9%
Moncton	1.8%
Saint John	1.6%



Quebec	1.7%
Saguenay	0.9%
Montreal	2.0%
Quebec City	1.5%
Gatineau	0.8%
Sherbrooke	0.9%



Ontario	1.8%
Ottawa	2.1%
Kingston	1.2%
Toronto	1.6%
Kitchener-Waterloo-Cambridge	1.2%
Windsor	1.8%
Sudbury	2.3%
Thunder Bay	1.6%



Manitoba	2.9%
Winnipeg	2.7%



Saskatchewan	4.2%
Regina	3.2%
Saskatoon	3.4%



Alberta	3.8%
Edmonton	4.3%
Calgary	2.7%

British Columbia	1.3%
Vancouver	0.9%
Victoria	1.5%

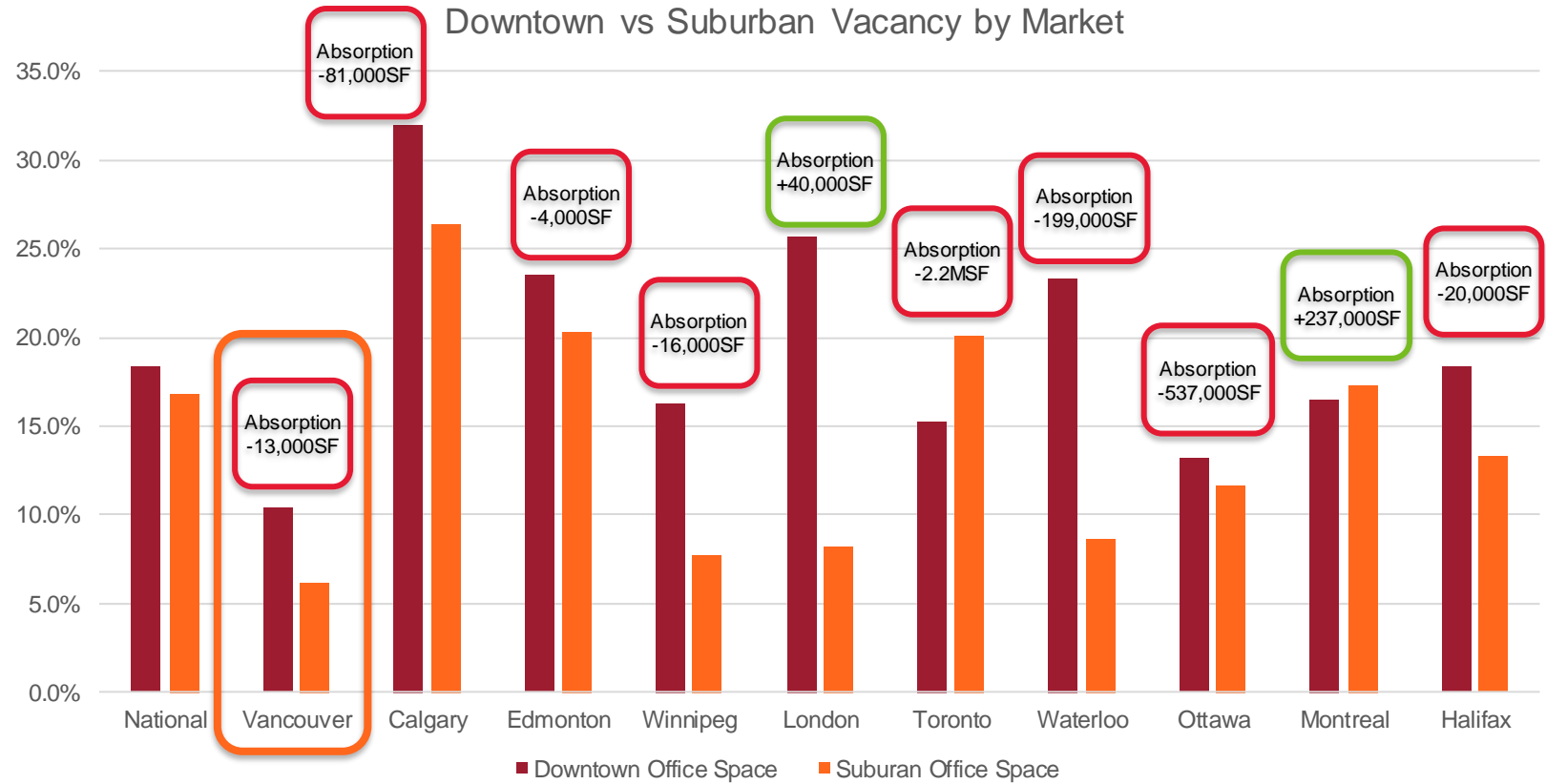
- With just over 1 million non-permanent residents living, working and studying in Canada, the supply of available rental housing has become very tight.
- Rental vacancy rates have been on the decline since the end of the pandemic.
- The national vacancy rate in October 2022 was: 1.9%.**
- The housing challenge not only impacts residents, but also makes the movement of workers between regions challenging.
- The national year-over-year increase in rent was:
\$96.00 (7.9%) to \$1,302/month

Source: Rental Market Survey (CMHC), Canada Mortgage and Housing Corporation, January 2023

The road ahead

- Office market conditions are very fluid at the moment.
- Downtown vacancy rates have historically been well below suburban rates.
- In 2022, downtown rates exceeded suburban rates for office vacancies.
- Work from home arrangements have placed considerable pressure on rental markets – Class A buildings have become much more affordable
- Class B and C buildings under considerable pressure as tenants move to more affordable Class A space.
- The drive for additional housing may promote more conversions of existing Class B and Class C buildings into affordable housing and condominiums.

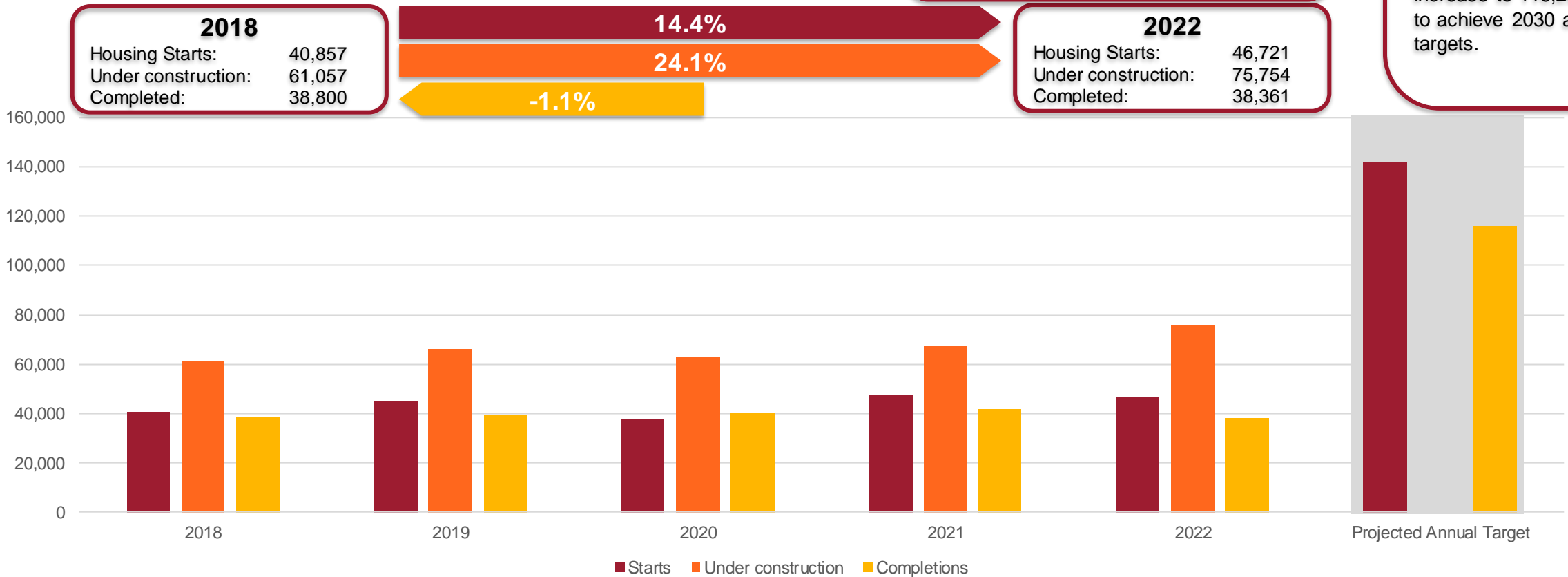
Office Conversions to Residential Homes



Source: CBRE Research, Q1 2023

The road ahead

Demands: New home construction



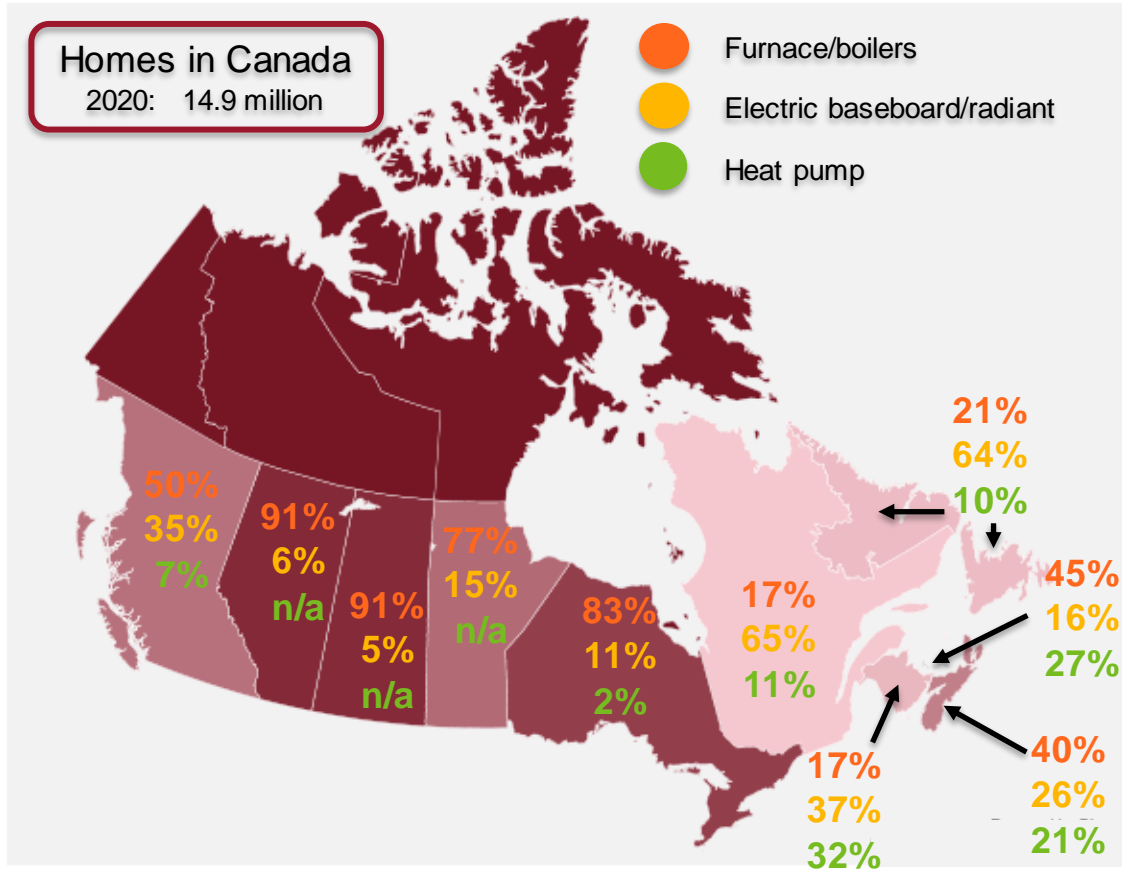
Source: Statistics Canada. Table 34-10-0126-01 Canada Mortgage and Housing Corporation, housing starts, under construction and completions, all areas, annual

The road ahead

Key Future Demands

- Fuel switching at the residential heating and cooling level and building envelope upgrades.

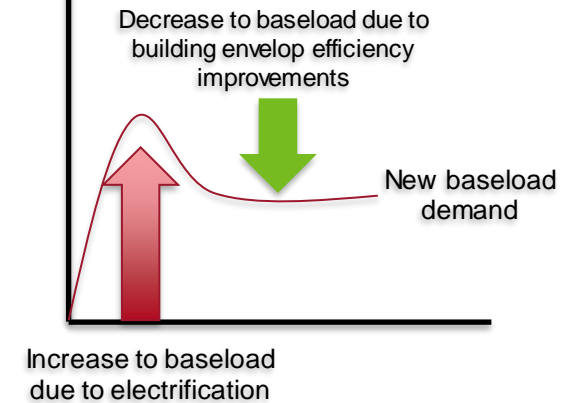
Retrofitting and building greener homes will be key to emissions reduction



Transition to Net-Zero

- Replacing fossil fuel heating/cooling and appliances with equivalent electrical units is the fastest way to net-zero – **if the incoming electricity is also green.**
- At the same time, **energy efficiency retrofits will be required** to reduce baseload grid demands.
- This shift will impact several trades and occupations:
 - Gasfitters
 - Electricians
 - Sheet metal workers
 - Refrigeration and air conditioning mechanics
 - Insulators
 - Commercial installers
 - Drywallers
- The shift will also increase baseload demands on the grid that will likely require additional generating capacity, which will increase demands on the non-residential workforce.

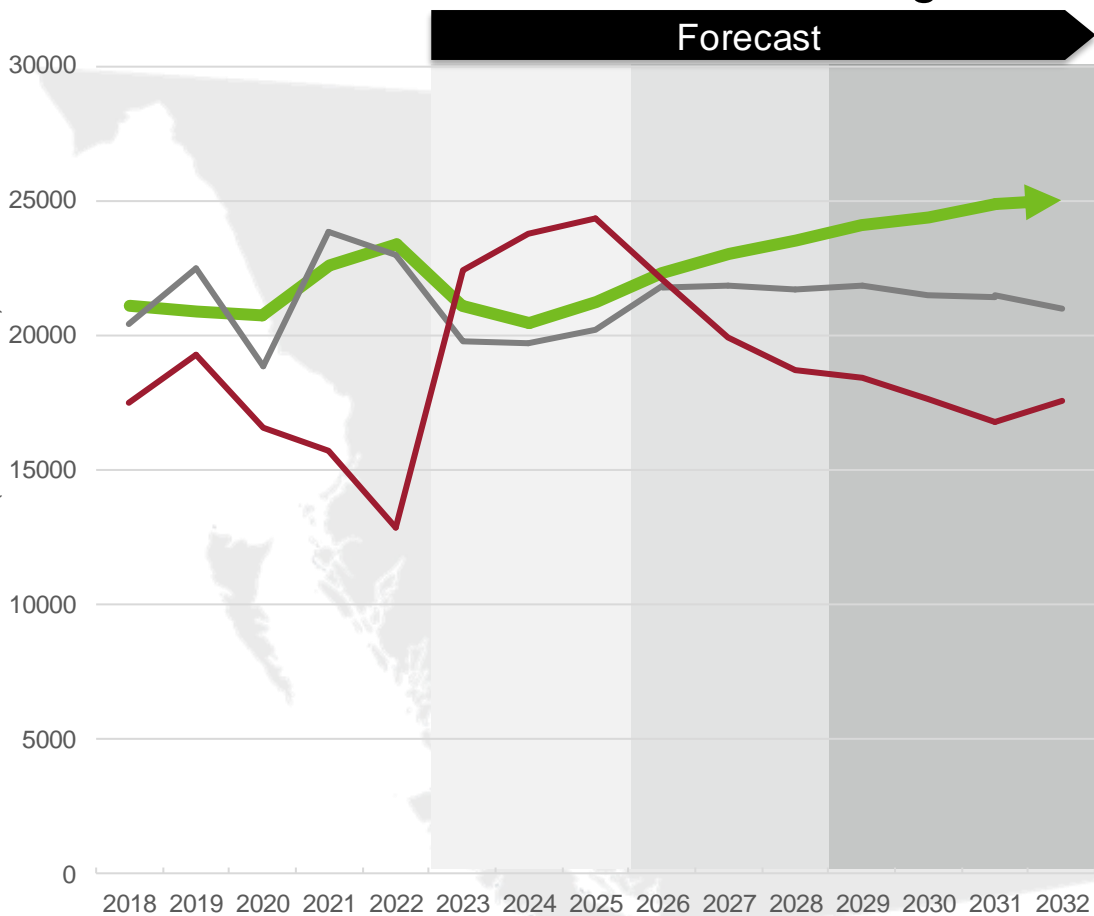
Transition to Electrification



Source: Statistics Canada, 2021 (CBC): Will electrifying cars and home heating break Canada's grid?, August 2023: <https://www.cbc.ca/news/science/electrification-grid-ev-heating-1.6935663?cmp=rss>

Residential Labour Markets: 2022-2032

British Columbia: Demands increasing

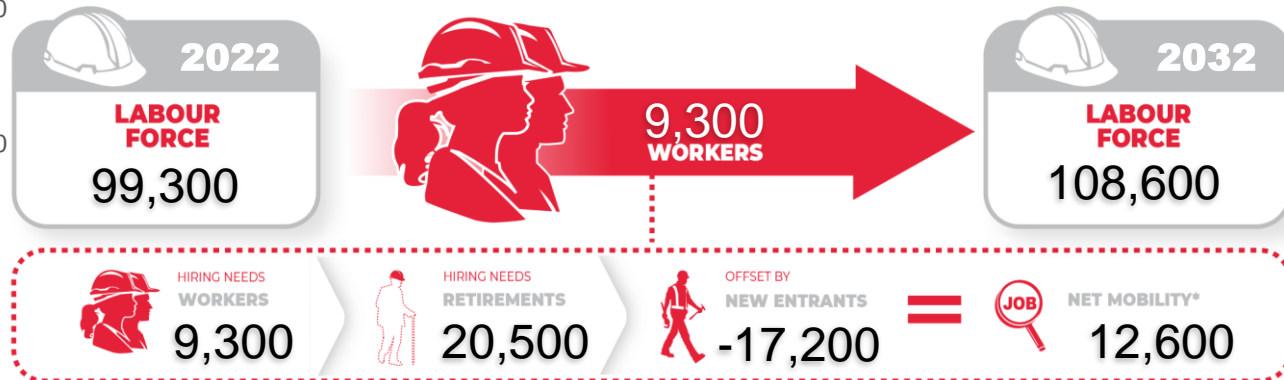


- Residential Investment (Left Axis)
- Housing Starts (Right Axis)
- Household Formations (Right Axis)

* \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Note: Household formation refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.

Construction employment by sector: 2023-2032 (total direct trades and occupations)

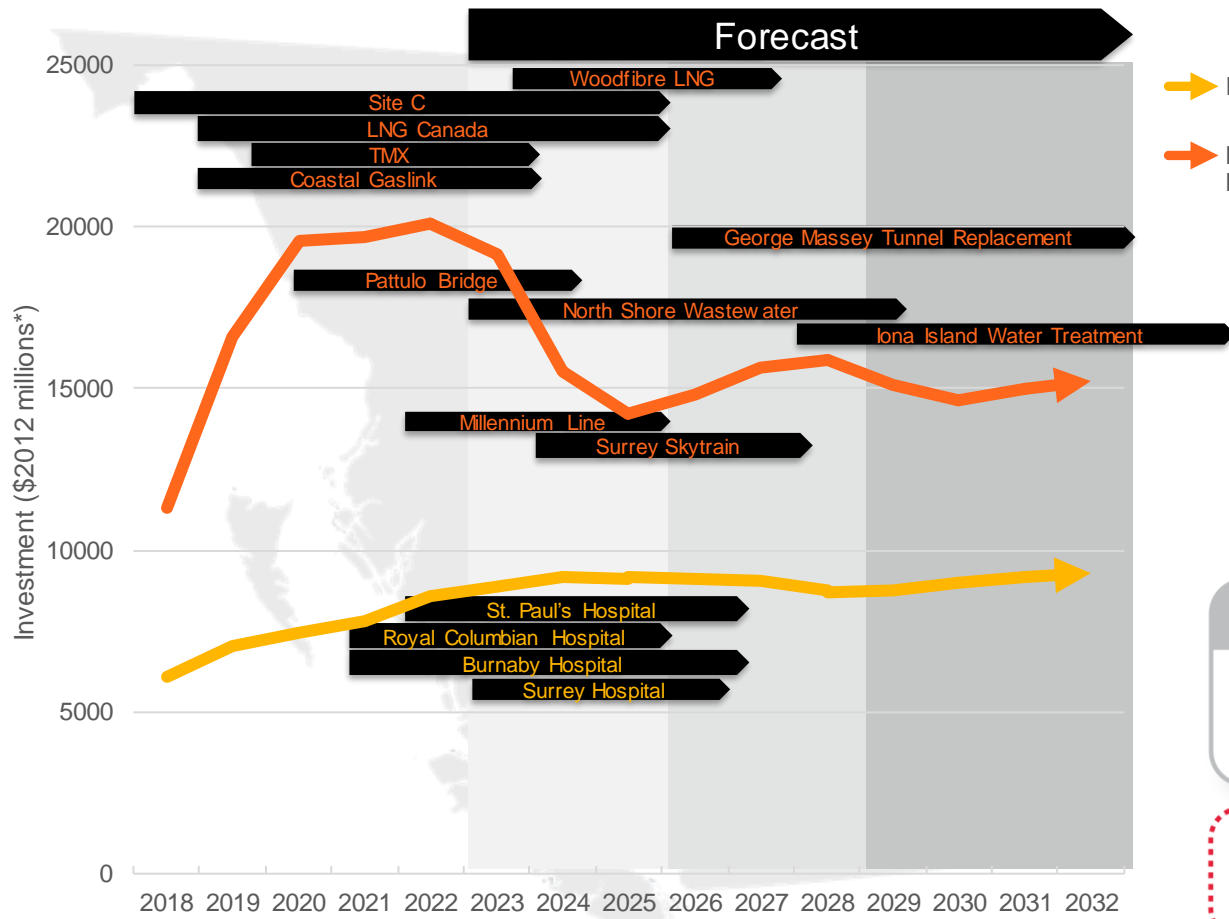


Net mobility refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exist the industry in downturns. Positive net mobility means that the industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.

Note: Totals used above are rounded and may not add up to the totals indicated in the graphs.

Residential highlights

British Columbia: Demands increasing

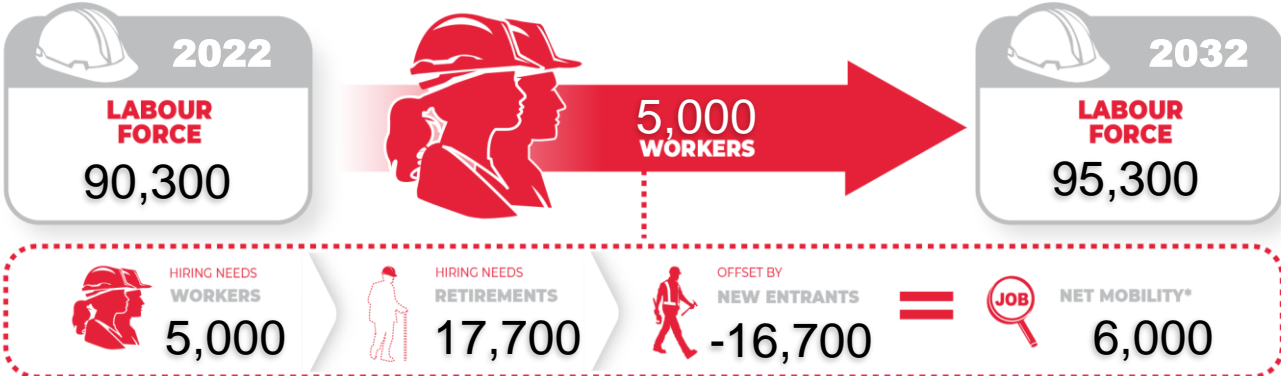


More than **\$92 billion** worth of major projects included in the **2022-2032** forecast

- Industrial, Commercial and Institutional
- Heavy Industrial, Other Engineering and Roads, Highways and Bridges

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Risks

- **Population is getting older** – fewer younger workers to replace those retiring – ***competition from other industries will be intense***
- **Immigration levels will remain strong** – ***add to provincial housing demands***
- **Electrification** will place significant demands on residential and non-residential renovation/maintenance workforce – ***will pull on other segments of the labour force***
- **New housing demands will remain high** – ***will pull on other segments of the labour force***
- **Immigration policies** must better align with domestic labour force requirements – ***better pathways for skilled trades immigrants required***

***Demand levels are expected to remain high in both residential and non-residential sectors.
If we don't fix the above issues, acute labour shortages will become chronic!***

ATTACHMENT

CONSTRUCTION
& MAINTENANCE
INDUSTRY



Funded in part by the Government of
Canada's Sectoral Workplace
Solutions Program



BRITISH COLUMBIA

HIGHLIGHTS 2023-2032

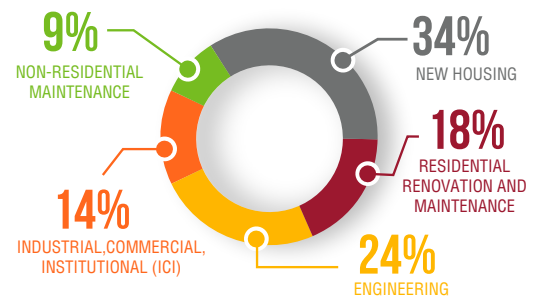
British Columbia's construction market enjoyed strong growth in 2021 and 2022, with investment levels in its residential and non-residential sectors both rising to peaks. The outlook across the remainder of the near term calls for contractions, with the housing sector affected by rising interest rates, and the non-residential sector concluding key major projects.

Activity across the forecast period sees varying trends. The residential sector is expected to recover swiftly after 2024 as interest rates ease, and consumer wages adapt. Growth in renovation activity, in particular, helps to sustain employment above 2022 levels. Meanwhile, activity in the non-residential sector will fluctuate with the ebb and flow of work on several major projects, and is underpinned by growth in maintenance work.

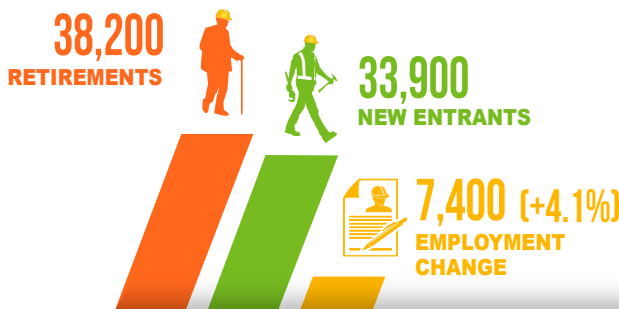
Overall, construction employment is expected to contract from its 2022 peak through the early years of the forecast period before growing by some 7,400 workers by 2032. Labour market challenges in the near term will be sustained by recent contractions in the labour force, and in the longer term by the expected retirement of 38,200 workers, or 20% of the current labour force, by 2032.

To keep pace with construction demands, the industry will need to recruit and train an estimated 52,600 workers throughout the forecast period.

DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2022, BRITISH COLUMBIA



10-YEAR WORKFORCE OUTLOOK FOR BRITISH COLUMBIA



AVERAGE UNEMPLOYMENT RATE 6.6%

HIGHLIGHTS

- The average annual unemployment rate for the sector fell to under 4% in 2022, as employment and the labour force have yet to return to pre-pandemic levels.
- Non-residential employment rises to a forecast peak of more than 89,000 workers in 2023. It recedes modestly to 2025 as some major projects wind down, and then cycles back upward later in the period, finishing the outlook 2% (+1,400 workers) above 2022 levels.
- Gains in renovation and maintenance employment are expected to offset declines in the new-housing sector, as overall residential employment grows by 6,000 workers (+6%) over 2022 levels.
- The retirement of more than 38,200 workers across the forecast period will increase the industry's overall hiring requirement to 52,600 workers.

BuildForce's LMI System

BuildForce Canada uses a scenario-based forecasting system to assess future construction labour requirements in the heavy industrial, residential, and non-residential construction markets. This labour market information (LMI) system tracks 34 trades and occupations. To further improve the robustness of the system, BuildForce consults with industry stakeholders, including owners, contractors, and labour groups, to validate the scenario assumptions and construction project lists, and seeks input from government on related analysis. The information is then distilled into labour market condition rankings to help industry employers with the management of their respective human resources.

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BRITISH COLUMBIA CONSTRUCTION OUTLOOK

The 2023–2032 *Construction and Maintenance Looking Forward* outlook for British Columbia shows that again, the province enjoys one of the busiest construction markets in Canada. Investment levels reached peaks in 2022, spurred in the residential sector by record-low interest rates at the start of the year, and in the non-residential sector by major energy and infrastructure projects. Demand is expected to contract in 2023 as rising interest rates curb housing affordability and as several major non-residential projects are completed. Investment is expected to step down further into 2024 and 2025, in line with further non-residential project completions, before sustaining itself at elevated levels through the remainder of the decade.

Economic output in the province recovered strongly from the COVID-19 pandemic in 2021, and was sustained in 2022, as interprovincial migration facilitated a rapid recovery in both residential and business investment. Inflation will cause real GDP growth to step back slightly in 2023, but as the global economy recovers, modest increases are expected to follow.

British Columbia’s residential construction market has been driven in recent years by gains in its new-housing segment. Housing starts reached record highs of more than 45,000 units in each of 2021 and 2022. Those numbers are expected to ease in 2023 with rising interest rates, and are expected to contract again in 2024, before rising to accommodate the higher levels of migration to the province in later years. Meanwhile, renovation-sector investment is expected to grow almost continuously as consumers choose to maintain their homes rather than pursuing new housing. By 2032, residential construction employment is expected to have

increased by more than 6,000 workers (6% above 2022 levels), with significant gains in renovation and maintenance work offsetting declines in new-home construction.

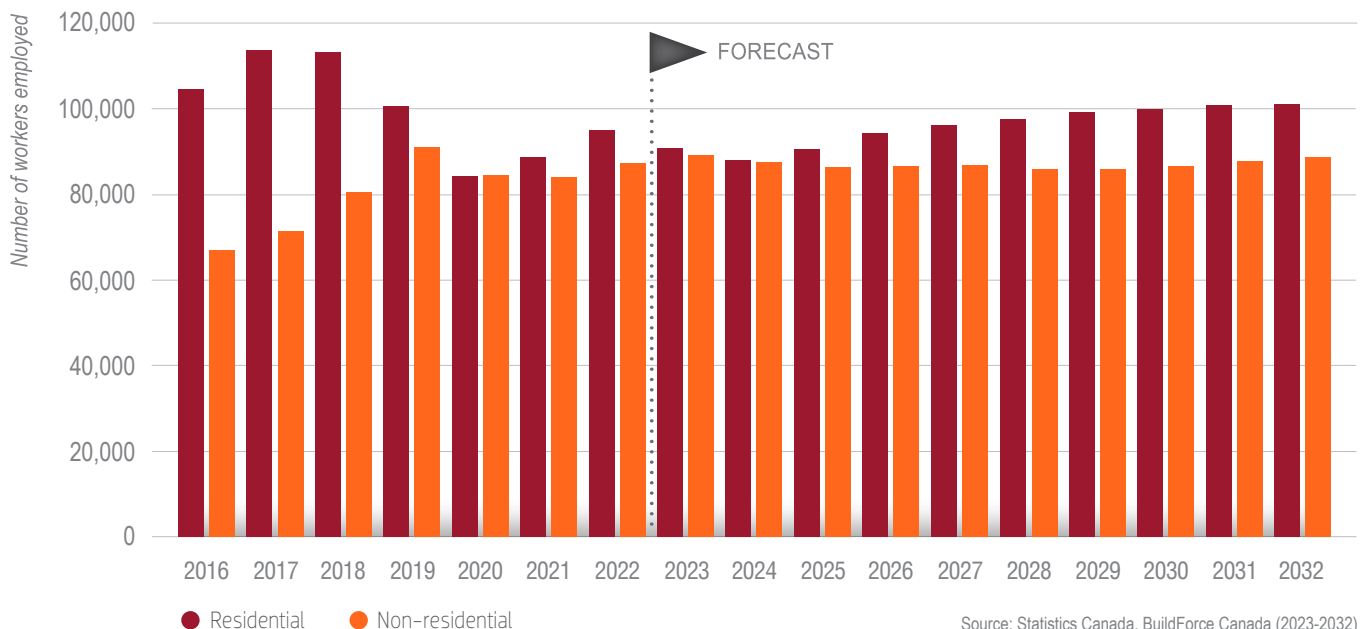
Activity in the province’s non-residential construction sector has been supported over several years by an influx of major heavy-industrial, public-transit, education, hospital, highway, and bridge projects, as well as a recovering commercial-building component. The ebb and flow of the various projects over the forecast period directly affects employment. After contracting in 2024 and 2025, employment is virtually unchanged over the remainder of the forecast period. It finishes the decade up 2% (+1,400 workers) compared to 2022, as renewed maintenance construction offsets engineering-construction declines.

In concert with increasing demands, the province’s construction sector faces the added complication of labour force pressures. Both its labour force and employment figures have yet to return to 2019 levels, and brought the rate of construction unemployment to a low of less than 4%.

The industry faces the added challenges of an aging workforce and the expected retirement of more than 38,000 workers over the forecast period, or 20% of the current labour force. Meeting these demand requirements will require a combination of strategies that include increased local recruitment and training, attracting newcomers to the industry as well as recruiting workers displaced from other industries, and, during periods of peak demands, bringing in construction workers from other provinces.

Figure 1 shows the anticipated change in residential and non-residential employment across the forecast period.

Figure 1: Construction employment growth outlook, British Columbia



Source: Statistics Canada, BuildForce Canada (2023-2032)

DEMOGRAPHICS: CANADA'S AGING POPULATION CREATES WORKFORCE CHALLENGES

Across the country, the share of the labour force aged 65 and over, who are mainly retired, has increased from 15% in 2012 to 19% in 2022. As Figure 2 shows, it is projected to grow again – to 22% – by 2032.

The labour force will be further challenged by a dwindling pool of youth. The group of people aged 15 to 24 years – i.e., people who are poised to enter the labour force – is shrinking as a percentage of the national population. This cohort was 13% in 2012, dropping to 12% in 2022, and is projected to fall to 11% by 2032.

These trends will create challenges for all industries, including construction, as it pertains to labour force recruitment.

There is good news, however. New federal immigration targets, announced in November 2022, call for the addition of 465,000 permanent residents in 2023, 485,000 in 2024, and a further 500,000 in 2025. These new targets should support further growth in the core working-age group of 25–54 years and may help moderate labour market pressures over the next decade. They will also require domestic industries to improve their recruitment of newcomers to supplement their traditional domestic recruitment programs.

DEMOGRAPHICS SUSTAINED BY MIGRATION

British Columbia's demographics follow a similar trend. Figure 3 shows that youth aged 15 to 24 years comprised 12% of the province's population in 2022. That figure is expected to contract to 9% by 2032. Meanwhile, the proportion of those aged 65 and older, and who are mostly retired, is projected to grow from 20% to 23% over the same period.

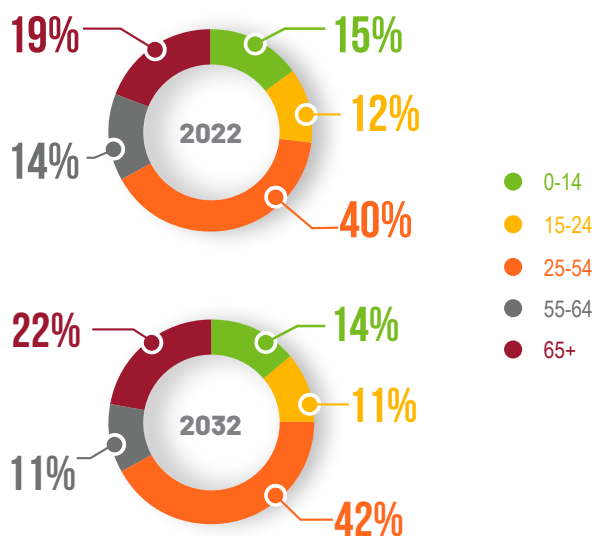
British Columbia is considered a relatively older province. Its natural rate of population growth¹ has been zero or negative since 2022, when the number of deaths equalled or exceeded births in the province. This is due in part to an older population base, and families having fewer children than past generations of Canadians.

Interprovincial migration to the province has been generally net positive since 2014; however, that figure is declining, given concerns over affordability, and particularly the affordability of housing costs. Interprovincial migration should remain generally positive through the end of the forecast period.

The factor most influencing population growth in British Columbia is international migration. Since 2002, British Columbia has typically received between 35,000 and 40,000 new arrivals annually. Those figures jumped to above 60,000 in 2017 and 2018. In 2022, immigration levels soared to above 83,000 persons with the relaxing of pandemic-related restrictions. That figure was further supported by another nearly 30,000 non-permanent residents as students returned to in-person learning and global travel rebounded. Although this student rebound is unlikely to be experienced again, British Columbia should nonetheless expect to maintain immigration levels close to the recent level of 80,000 in the medium term, particularly given the revised federal targets.

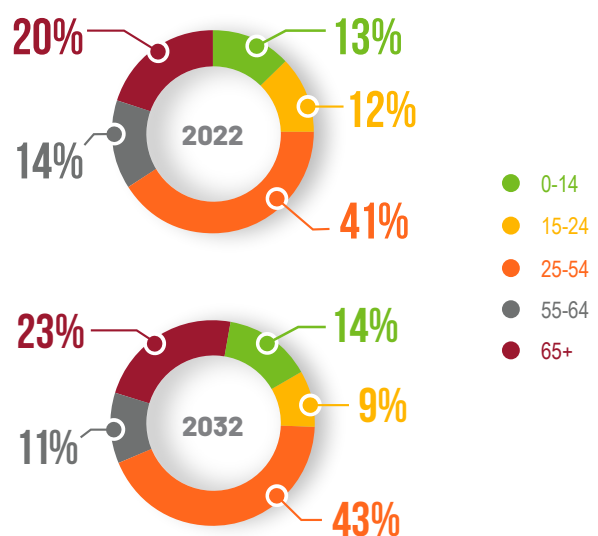
This increase in the number of international migrants in their prime working-age and child-bearing years will put upward pressure on fertility rates in the province and help to sustain British Columbia's natural rate of population growth near or above zero. The increase will also help to grow the province's core working-age group (25 to 54 year olds) and offset the declining numbers of youth entering the labour force.

Figure 2: Population age distribution, Canada



Source: BuildForce Canada

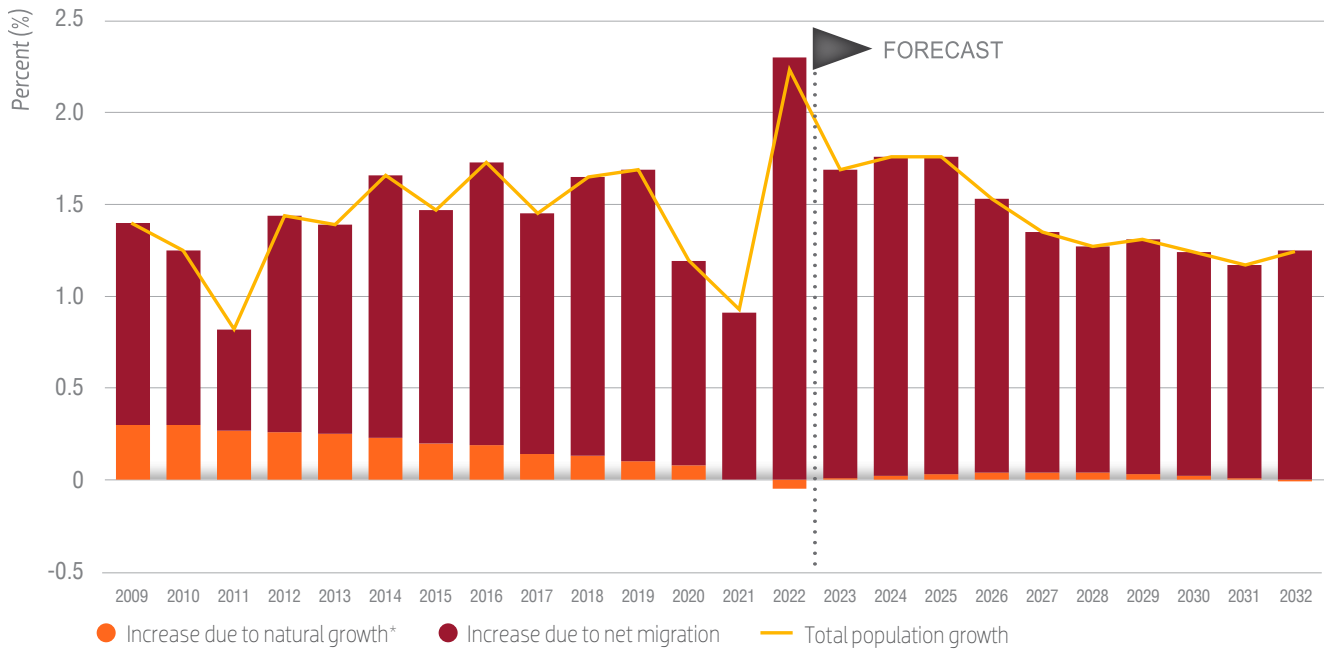
Figure 3: Population age distribution, British Columbia



Source: BuildForce Canada

¹ The natural rate of population growth refers to the growth in the population due to the number of births relative to the number of deaths, which leads to a positive or negative natural rate.

Figure 4: Sources of population growth (%), British Columbia



* **Natural rate of population growth** refers to the growth in the population due to the number of births relative to the number of deaths, which leads to a positive or negative natural rate.

Source: Statistics Canada, BuildForce Canada (2023-2032)

Despite the low rate of natural population growth, the province is expected to maintain a population growth rate above 1% throughout the forecast period.

Figure 4 shows the various factors affecting population growth in British Columbia over the forecast period.

SECTOR INSIGHTS

The following sections provide sector-specific insights into the provincial residential and non-residential labour markets.

The BuildForce LMI system tracks supply and accounts for the change in the available labour force, including retirements, new entrants², and net mobility³.

BuildForce assesses market conditions for 34 construction trades and occupations using a ranking system that combines measures of the change in employment, unemployment, net mobility, and adjustments based on industry input. The rankings reflect

residential and non-residential market conditions unique to the province based on current and proposed construction activity. In addition, assumptions on provincial economic and population growth, new entrants to the labour force, and migration patterns (interprovincial and international) are built into the forecast scenario and included in the ranking assessment.

The rankings for some trades are suppressed due to the small size of the workforce (fewer than 100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Some trades are also excluded because they typically do not work in the sector being assessed (e.g., boilermakers and millwrights in residential construction, and homebuilding and renovation managers in non-residential construction).

For British Columbia, rankings are reported for 27 residential and 32 non-residential trades and occupations. For the Lower Mainland, rankings are reported for 27 residential and 32 non-residential trades and occupations. For Vancouver Island, rankings are reported for 19 residential and 24 non-residential trades and occupations.

² **New entrants** are measured by applying the traditional proportion of the provincial labour force that enters the construction industry. The projected estimate across the forecast period assumes that the construction industry can recruit this group in competition with other industries.

³ **Net mobility** refers to the movement of labour in and out of the local construction industry labour force. In-mobility captures the movement into the labour force of out-of-province industry workers and/or workers from outside the industry. Many members of this group will move quickly out of the provincial labour force as work declines, referred to as out-mobility.

PROVINCIAL RESIDENTIAL SECTOR

Housing starts reached just under 46,000 units in 2022, boosted by strong demand across all structure types, with gains in single-detached units and apartments. Low interest rates contributed to a strong rebound in home construction and related investment. The market is expected to see a significant step down in 2023, contracting by more than 6,300 units (-14%). With single-detached housing accounting for the loss of nearly half of those units, the contraction is expected to be spurred by rising interest rates and affordability concerns.

As shown in Figure 5, residential investment is expected to contract by about 10% in 2023, as a reduction of 15% in new-housing investments more than offsets a slight gain in renovation expenditures. Investment is expected to contract again in 2024 – by 3% – as a further reduction in single-detached housing starts offsets another slight increase in renovation activity. Housing starts are expected to regain their upward momentum in 2025, and remain above 40,000 units for the remainder of the forecast period. Renovation activity is expected to trend upward continuously across the forecast period, driven by the buildup of an aging housing stock,

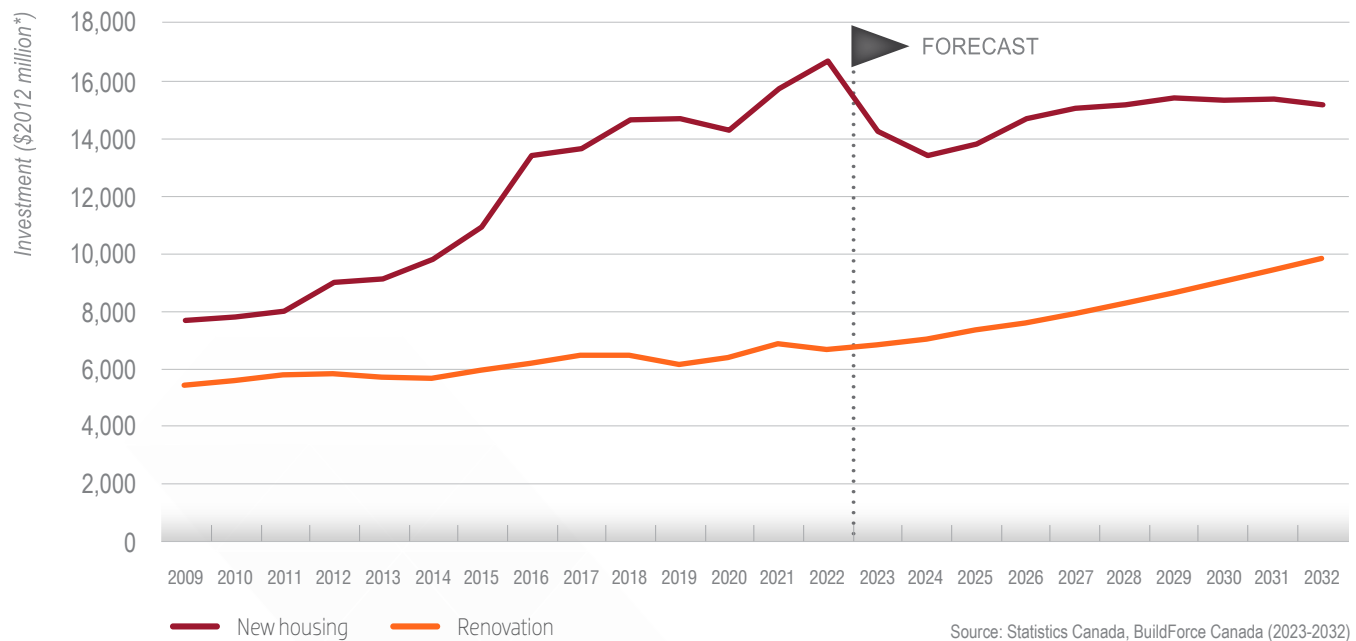
as well as from individuals buying into more mature real estate markets and updating these purchases to their needs and tastes.

Residential employment grew to just under 95,000 workers in 2022, but is expected to step back by as much as 4% in 2023 with the contraction in the new-housing market. A loss of nearly 6,000 workers in new-housing construction more than offsets gains in renovation and maintenance employment. Another decline in residential employment is forecast for 2024 as the market continues to adapt to changing interest-rate conditions. Thereafter, employment rises through to the end of the forecast period to reach 6,000 workers (+6%) above 2022 levels.

Renovation-related employment increases by approximately 9,300 workers – a 37% increase from 2022 levels – while maintenance employment rises by 4,200 workers (+51%) over the same period. These combine to more than offset the loss of nearly 7,500 workers (-12%) in new housing.

Note that federal efforts to double the number of new homes built across Canada over the next 10 years were not factored into this analysis.

Figure 5: Residential construction investment, British Columbia



Source: Statistics Canada, BuildForce Canada (2023-2032)

* \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

Table 1 shows that labour markets in most residential trades and occupations were strained in 2022. Even as new housing stepped down from its peak levels, builders continued to contend with a backlog of projects. Rising residential investment, coupled with a reduction in labour force participation and increased renovation work, further contributed to market challenges across most trades and occupations.

Labour market conditions should moderate slightly in 2023 as housing starts ease, and should return to balance for most trades by 2024 and through the remainder of the forecast period.

MARKET RANKINGS

1

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.

2

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.

3

The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.

4

Workers meeting employer qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.

5

Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

Table 1: Residential market rankings, British Columbia

TRADES AND OCCUPATIONS – RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bricklayers	4	3	3	3	3	3	3	3	3	3	3
Carpenters	4	3	2	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	5	3	2	3	3	3	3	3	3	3	3
Construction managers	5	4	3	3	3	3	3	3	2	3	2
Contractors and supervisors	4	3	3	3	3	3	3	3	3	3	3
Crane operators	5	4	3	3	4	3	3	3	3	3	3
Electricians	4	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	5	4	3	3	3	3	3	3	3	3	3
Floor covering installers	5	4	3	3	3	3	3	3	3	3	3
Gas fitters	5	3	2	3	4	3	3	3	3	3	3
Glaziers	4	4	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	3	3	3	3	3	3	3	3	3
Home building and renovation managers	5	4	3	3	3	3	3	3	3	3	3
Insulators	4	3	2	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	2	3	3	3	3	2	2	3	3
Painters and decorators (except interior decorators)	4	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	5	3	3	3	3	3	3	3	3	3	3
Plumbers	4	4	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	5	4	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	5	3	2	3	3	3	3	3	3	3	3
Tilesetters	5	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	3	3	3	3	3
Truck drivers	4	3	3	3	4	3	3	3	3	3	3
Welders and related machine operators	4	3	2	3	3	3	3	3	3	3	3

Source: BuildForce Canada

PROVINCIAL NON-RESIDENTIAL SECTOR

As shown in Figure 6, non-residential investment enters the forecast period on a significant upward curve, having grown continuously since 2015 by a suite of major transportation and heavy-industrial projects, including liquefied natural gas (LNG) developments, pipelines, port expansions, hydroelectric power, wastewater developments, hospitals, schools, and light rail transit expansions in the province.

That cycle is expected to crest in 2023 as some of those projects begin to wind down. Non-residential construction investment is expected to recede modestly through to 2025, spurred by reductions in engineering-construction investment that, in turn, are caused by the conclusion of several of these large engineering projects.

Engineering-construction investment is anticipated to cycle back up in 2026 and remain on an upward curve through most of the remainder of the forecast period. The increases are driven by the start of several new projects, including public-transit projects in the Lower Mainland in 2025.

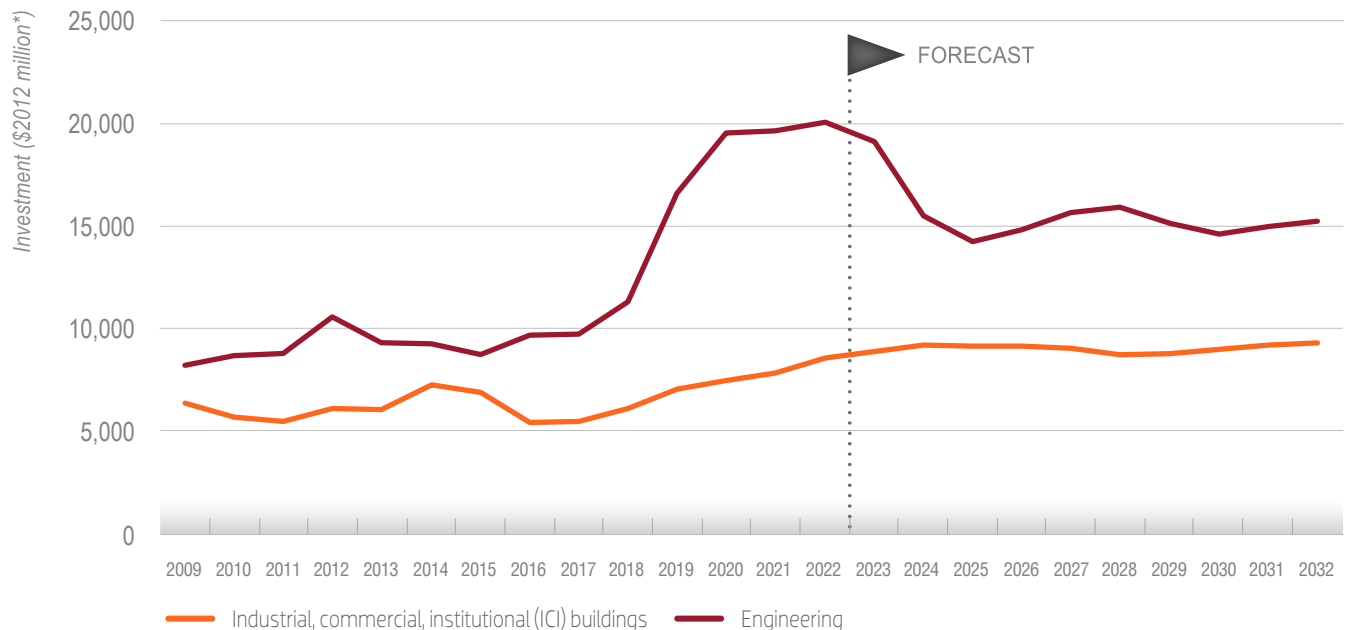
Activity in industrial, commercial, and institutional (ICI) construction increased in 2022, supported by increases in all three components. The overall outlook for the sector is positive through to the end of

the forecast period, with investment showing annual increases until at least 2027 on the strength of rising investments in health care and hospitals, as well as a general increase in factory and warehousing capacity.

The nature of demands in British Columbia will boost non-residential employment in line with the projected ebb and flow of the construction of major projects in the near term. Employment increased by 4% in 2022 and is expected to grow by a further 4% to above 89,000 workers in 2023. A contraction of 2% follows in 2024 with the loss of about 2,600 workers in engineering construction. Thereafter, and through the remainder of the forecast period, non-residential employment is mostly unchanged, remaining between 86,000 and 88,000 workers.

In the short term, engineering construction records contractions of about 3,600 workers as ICI and maintenance employment expands. In later years, the ICI sector contracts as the other sectors either grow slightly or remain unchanged. By the end of the forecast period, provincial non-residential employment levels increase by 1,400 workers (+2%) above 2022 levels. An increase of more than 2,700 workers (+16%) in the maintenance sector more than offsets a relatively unchanged employment outlook in ICI and a loss of nearly 1,400 workers (-3%) in engineering construction.

Figure 6: Non-residential construction investment, British Columbia



* \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Source: Statistics Canada, BuildForce Canada (2023-2032)

Table 2 summarizes the estimated percent change in non-residential employment by sector across three periods: the short term (2023–2025), the medium term (2026–2028), and the long term (2029–2032).

Table 2: Changes in non-residential employment by sector, British Columbia

SECTOR		% CHANGE 2023–2025	% CHANGE 2026–2028	% CHANGE 2029–2032
Total non-residential employment		-1%	0%	3%
ICI* buildings	Industrial	1%	6%	4%
	Commercial, institutional and government	7%	-11%	2%
Engineering	Highways and bridges	-17%	-3%	0%
	Heavy industrial	0%	21%	13%
	Other engineering	-9%	-7%	-4%
Maintenance		6%	4%	5%

Source: Statistics Canada, BuildForce Canada (2023-2032)

* industrial, commercial, institutional

NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

As shown in Table 3, employment demand was exceptionally strong in 2022, with significant pressure on the province's construction labour markets created by a long list of new and ongoing projects.

As investment begins to slow into 2023 and 2024, labour markets ease and approach balanced conditions. This is particularly the case for those trades involved in hospital, highway, bridge, and LNG projects. As these projects are completed, labour markets return mostly to balanced conditions by 2025, and for the remainder of the forecast period.

The widespread conversion of ICI buildings to the greater use of electricity for heating and cooling is excluded from this report, as these efforts are still in their early phases and have had only minor impacts on overall construction labour markets. As these efforts accelerate, they will be added to future BuildForce Canada outlook reports.

Table 3 : Non-residential market rankings, British Columbia

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Boilermakers	4	4	3	3	3	3	3	3	3	3	3
Bricklayers	5	4	3	3	3	3	3	3	3	3	3
Carpenters	4	4	3	2	3	3	3	3	3	3	3
Concrete finishers	4	4	4	3	2	3	3	3	3	3	3
Construction estimators	4	4	3	3	3	3	3	3	3	3	3
Construction managers	4	4	4	3	3	3	2	2	3	3	3
Construction millwrights and industrial mechanics	4	3	3	3	3	3	3	3	3	3	3
Contractors and supervisors	4	4	3	3	3	3	3	3	3	3	3
Crane operators	4	5	3	2	3	3	3	3	3	3	3
Drillers and blasters	4	3	3	3	3	3	3	3	3	3	3
Electrical power line and cable workers	4	4	3	3	3	3	3	3	3	3	3
Electricians	5	4	3	2	2	3	3	3	3	3	3
Elevator constructors and mechanics	5	5	4	3	3	3	2	3	3	3	3
Floor covering installers	5	5	4	3	3	3	2	3	3	3	3
Gas fitters	5	4	4	3	3	3	3	3	3	3	3
Glaziers	4	4	4	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	3	3	3	3	3	3	3	3	3

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Table 3 : Non-residential market rankings, British Columbia (continued)

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Heavy-duty equipment mechanics	4	4	3	3	3	3	3	3	3	3	3
Insulators	5	4	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	3	3	3	2	3	3	3	3	3	3
Painters and decorators (except interior decorators)	4	4	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	5	4	4	3	3	3	2	3	3	3	3
Plumbers	5	4	4	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	4	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	4	3	3	3	3	2	3	3	3	3
Roofers and shinglers	5	4	3	3	3	3	3	3	3	3	3
Sheet metal workers	4	4	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	4	4	3	2	3	3	3	2	2	3	3
Tiles setters	4	4	4	3	3	3	2	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	3	3	3	3	3
Truck drivers	4	3	3	3	3	3	3	3	3	3	3
Welders and related machine operators	4	4	3	3	3	3	3	3	3	3	3

Source: BuildForce Canada

LOWER MAINLAND CONSTRUCTION FORECAST

The Lower Mainland⁴ construction market, which accounts for 60% of the province's construction employment, strengthened again in 2022, led by peak levels of investment in both the residential and non-residential sectors.

Residential investment rose by just below 5%, as low interest rates in the early part of the year maintained housing starts above 30,000 units. Activity in the non-residential sector was supported by gains across all industrial-, commercial-, and institutional-building types, with institutional investments rising the most on the strength of sustained activity in hospital and health care infrastructure. Engineering construction was bolstered by the start of work on several multi-billion-dollar projects.

Varying market forces will come into play in 2023. While activity in the non-residential sector is expected to continue to rise with increased work across all segments, activity in the residential sector is expected to contract, as housing starts fall by 24% with rising interest rates and affordability concerns.

Total construction employment in the Lower Mainland's construction market is expected to contract through to 2026, as employment

losses in the residential sector offset gains in the non-residential sector. Thereafter, employment rises to the end of the forecast period, increasing by 3% to 2032. The addition of 3,100 workers in the non-residential sector accounts for the entirety of the increase. Residential employment is mostly unchanged.

Over the same period, the industry will need to replace 22,000 workers expected to retire. An estimated 19,200 new-entrant workers under the age of 30 from the local population may join the industry during this period, but unless recruitment is increased, a potential recruitment gap of almost 8,900 workers may need to be recruited from outside the local construction industry to meet future labour force needs.

LOWER MAINLAND RESIDENTIAL SECTOR

Historically low interest rates helped to bring housing starts to a record level of above 31,100 units in 2021. As interest-rate increases began to take effect in the second half of 2022, starts contracted by about 900 units (-3%) to reach a still-elevated level of more than 30,000 units. After declining by a further 3,700 units in 2023, starts should begin a slow climb across the remainder of the forecast period, supported by increases in population and low vacancy rates. Starts rise to just below 30,000 units by 2031.

⁴ The **Lower Mainland** region is defined by the economic regions of Greater Vancouver, Fraser Valley, Sunshine Coast, Squamish, and Lillooet.

Investment trends follow a similar pattern, with contractions in new housing in the near term more than offsetting moderate gains in renovation activity. After 2024, investment rises continuously, supported by an aging housing stock and higher levels of migration to the province. Residential employment is also expected to contract in 2023 and 2024, given anticipated reductions in new-housing construction. Thereafter, employment rises continuously, returning to 2022 levels by the end of the decade. By 2032, employment is unchanged, as a loss of nearly 6,700 workers (-14%) in new housing is countered by gains of 5,800 workers (+33%) in renovation and 850 workers (+15) in maintenance.

Figure 7 shows anticipated employment trends by sector for residential construction across the forecast.

THE AVAILABLE LABOUR FORCE

Increasing demands in some segments of the residential sector will increase labour force requirements by 1,600 workers by 2032. The retirement of 13,700 workers during this period will bring the overall recruitment requirement to 15,300. Meanwhile, the industry is expected to add as many as 11,400 new-entrant workers from the local population under the age of 30. Therefore, unless recruitment

increases, the sector may need to add as many as 3,900 additional workers from a variety of sources, including from among individuals in equity-deserving groups that are traditionally under-represented in the construction sector.

RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

Table 4 shows that sustained high levels of housing starts in the region, alongside a pullback in labour force participation, created exceptionally tight labour markets throughout the year.

Slowing demand for new-home construction should ease markets for selected trades, while increased renovation and maintenance activity sustains demands and balanced market conditions for others. Labour market conditions are expected to return to balance in 2023, and market conditions are expected to loosen further creating softer labour market conditions in 2024.

Conditions are expected to balance in 2025 and remain so for most trades and occupations over the remainder of the forecast. Note that federal efforts to double the number of new homes built across Canada over the next 10 years were not factored into this analysis.

Figure 7: Residential construction employment growth outlook, Lower Mainland, British Columbia

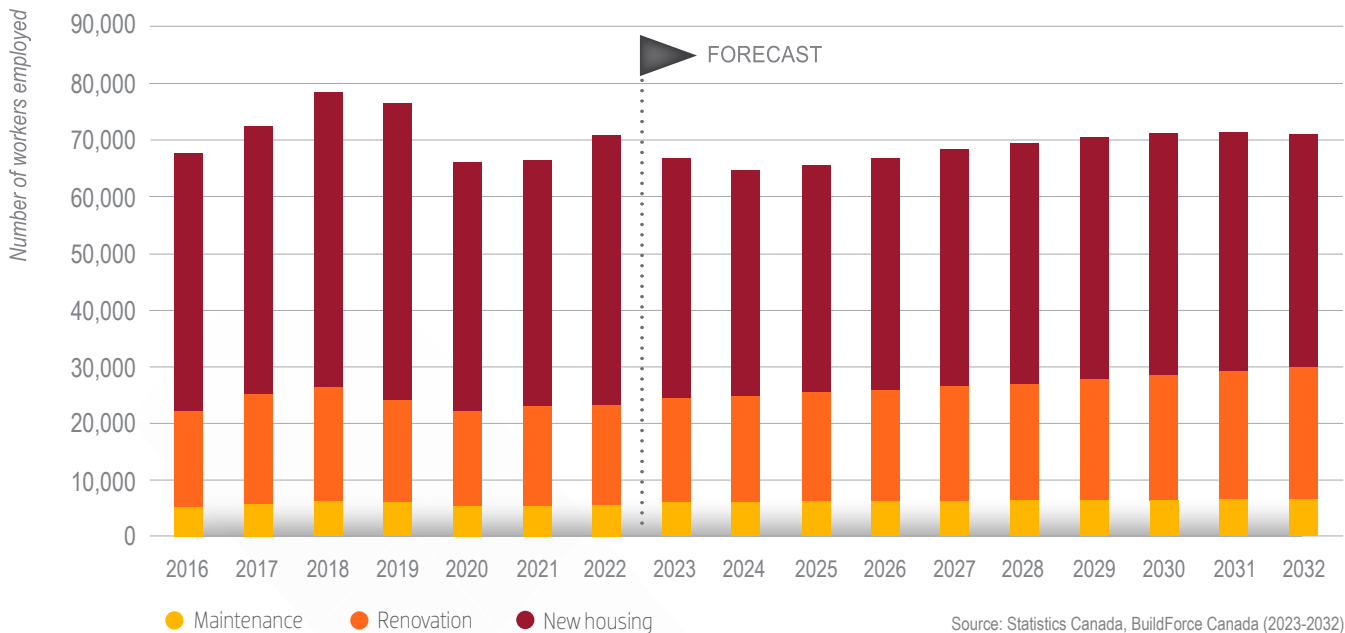


Table 4: Residential market rankings, Lower Mainland, British Columbia

TRADES AND OCCUPATIONS – RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bricklayers	4	3	2	3	3	3	3	3	3	3	3
Carpenters	4	3	2	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	5	3	2	3	3	3	3	3	3	3	3
Construction managers	5	3	3	3	3	3	3	3	3	3	2
Contractors and supervisors	4	3	2	3	3	3	3	3	3	3	3
Crane operators	5	3	2	3	3	3	3	3	3	3	2
Electricians	4	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	3	2	3	3	3	3	3	3	3	3
Floor covering installers	4	3	2	3	3	3	3	3	3	3	3
Gas fitters	5	3	2	3	3	3	3	3	3	3	3
Glaziers	4	3	2	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	2	3	3	3	3	3	3	3	3
Home building and renovation managers	4	3	2	3	3	3	3	3	3	3	3
Insulators	4	2	2	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	2	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	4	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	3	2	3	3	3	3	3	3	3	3
Plumbers	4	3	2	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	3	2	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	4	3	2	3	3	3	3	3	3	3	3
Tilesetters	4	3	2	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	2	2	3	3	3	3	3	3	3	3
Truck drivers	4	2	2	3	3	3	3	3	3	3	3
Welders and related machine operators	4	2	2	3	3	3	3	3	3	3	3

Source: BuildForce Canada

LOWER MAINLAND NON-RESIDENTIAL SECTOR

Ongoing near-term demands, particularly in the industrial, commercial, and institutional (ICI) sector are expected to increase employment levels in 2023 and 2024, and maintain them at a peak of just below 44,000 workers through 2027. Activity is driven by a wave of major projects, including the Pattullo Bridge replacement,

Millennium Line (Broadway), Surrey Langley SkyTrain, Woodfibre liquefied natural gas, St. Paul's Hospital, Royal Columbian Hospital, and several school projects. Investment is expected to rise to a peak in 2027 before receding slightly in 2028 and 2029, and then reaching a new high by 2032. Employment follows a similar pattern, rising to 8% above 2022 levels by 2032, with gains reported in all three components.

Employment in ICI-building construction is expected to experience strong growth through the short term, reaching a peak of more than 19,100 workers (+18%) in 2025, propelled by major health- and education-sector projects. Thereafter, employment is expected to retreat through 2029 and finish the decade up marginally (+2%) over 2022 levels.

Engineering-construction demands are expected to cycle across the forecast period. They reach a short-term peak of nearly 17,700 workers (+3%) in 2024, driven by investments in public transportation, various wastewater treatment facilities, and road, highway and bridge work, including the Pattullo Bridge replacement. Employment fluctuates moderately to 2029 before increasing later in the period with the proposed start of the Iona Island water treatment transformation project and ongoing work at the George Massey Tunnel replacement. By the end of the forecast period, employment is up by 9% (+1,600 workers) compared to 2022.

Maintenance requirements, meanwhile, are projected to rise over the forecast period, adding 1,200 workers (+16%) by 2032.

Figure 8 shows the anticipated employment trends by sector for non-residential construction across the forecast period.

THE AVAILABLE LABOUR FORCE

The rise in non-residential employment demands will necessitate the recruitment of an additional 4,600 workers

over the forecast period. The retirement of 8,300 workers during this period will increase the overall recruitment requirement to approximately 12,900. The addition of just over 7,700 local new-entrant workers under the age of 30 will help to moderate labour force pressures, but even at these levels, a projected deficit of almost 5,200 workers may emerge by 2032 unless recruitment is increased.

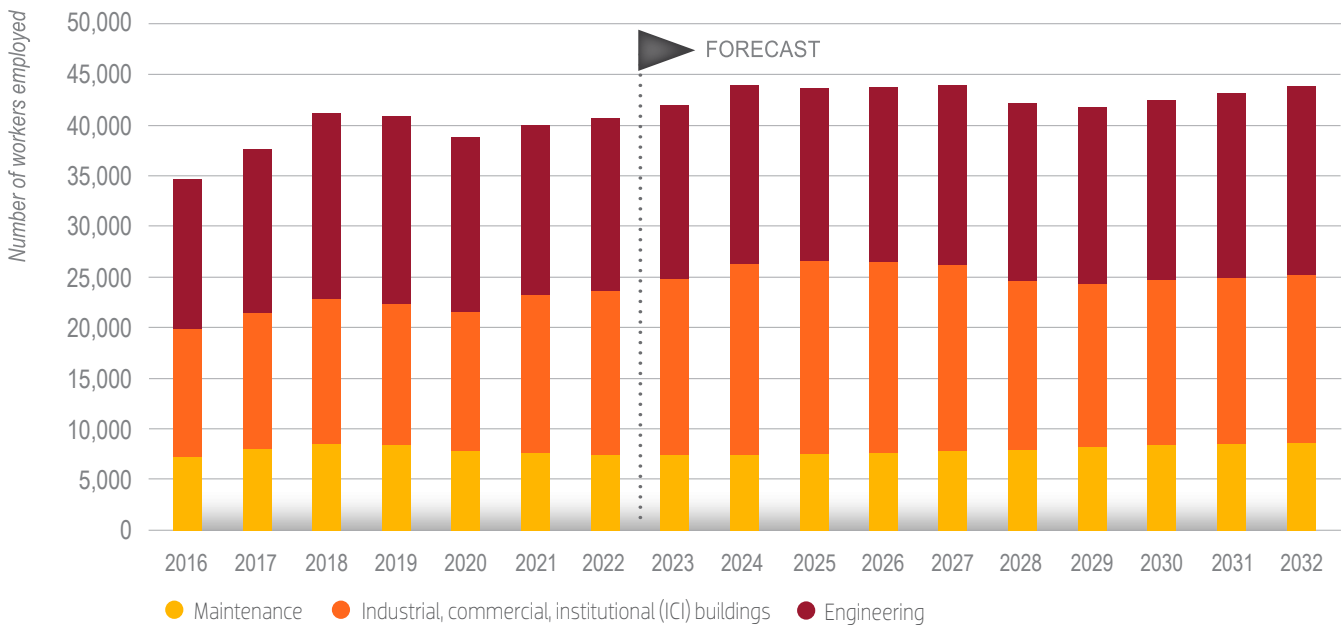
NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

As shown in Table 5, non-residential market conditions were very tight in 2022, as rising major project demands coincided with recovering ICI-building construction. As this work carries over into 2023 and 2024, pressures on the labour force are expected to moderate only slightly.

As hospital projects and highway and bridge work recede from peak levels of activity in 2025, markets return to balanced conditions, and even oversupplied conditions thereafter, and for the remainder of the forecast period.

The widespread conversion of ICI buildings to the greater use of electricity for heating and cooling is excluded from this report, as these efforts are still in their early phases and have had only minor impacts on overall construction labour markets. As these efforts accelerate, they will be added to future BuildForce Canada outlook reports.

Figure 8: Non-residential construction employment growth outlook, Lower Mainland, British Columbia



Source: Statistics Canada, BuildForce Canada (2023-2032)

Table 5: Non-residential market rankings, Lower Mainland, British Columbia

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Boilermakers	4	3	3	3	3	3	3	3	3	3	3
Bricklayers	4	4	4	3	3	3	2	2	3	3	3
Carpenters	4	4	3	3	3	3	2	3	3	3	3
Concrete finishers	4	4	4	3	2	2	2	2	3	3	3
Construction estimators	4	3	3	2	3	3	2	3	3	3	3
Construction managers	4	4	4	2	2	2	2	2	3	3	3
Construction millwrights and industrial mechanics	4	3	3	3	3	3	3	3	3	3	3
Contractors and supervisors	4	4	3	2	3	3	2	3	3	3	3
Crane operators	4	4	3	3	3	2	2	3	3	3	3
Drillers and blasters	4	3	3	2	3	3	3	3	3	3	3
Electrical power line and cable workers	3	3	3	2	3	4	3	3	3	3	3
Electricians	4	4	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	4	4	3	3	3	2	3	3	3	3
Floor covering installers	4	4	4	3	3	3	2	3	3	3	3
Gas fitters	4	4	4	3	3	3	3	3	3	3	3
Glaziers	4	4	4	3	3	3	2	2	3	3	3
Heavy equipment operators (except crane)	4	3	3	2	3	3	3	3	3	3	3
Heavy-duty equipment mechanics	4	3	3	2	3	3	3	3	3	3	3
Insulators	3	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	4	3	3	3	2	3	3	3	3
Painters and decorators (except interior decorators)	4	4	4	3	3	3	2	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	4	4	3	3	3	2	3	3	3	3
Plumbers	4	4	3	3	3	3	2	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	4	3	3	3	2	3	3	3	3
Residential and commercial installers and servicers	4	4	4	3	3	3	2	2	3	3	3
Roofers and shinglers	4	4	3	3	3	3	2	3	3	3	3
Sheet metal workers	4	4	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	3	4	3	3	3	3	2	3	3	3	3
Tilesetters	4	4	4	3	3	2	2	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	2	3	3	3	3
Truck drivers	4	3	3	3	3	3	2	3	3	3	3
Welders and related machine operators	4	4	3	3	3	3	2	3	3	3	3

Source: BuildForce Canada

VANCOUVER ISLAND CONSTRUCTION OUTLOOK

The Vancouver Island region⁵ experienced a strong year of construction growth in 2021, buoyed by significant gains in the residential market. Although less pronounced in 2022 (+3%), the market nonetheless grew again – supported by a more modest increase in housing investment, and stronger growth in non-residential construction.

Both sectors are expected to step back in 2023. The regional housing market is feeling the effects of higher interest rates. These will cause housing starts to contract by just under 600 units. Non-residential construction investment, meanwhile, is expected to fall by 2% as projects are completed and business investment slows with rising interest rates.

Construction activity is expected to moderate later in the forecast period, but employment is projected to decline by 1,100 workers (-3%) by 2032 compared to 2022 levels. Hiring demands will be driven by the requirement to replace an estimated 7,900 workers, or 23% of the current labour force, that are expected to retire from the construction industry by 2032.

VANCOUVER ISLAND RESIDENTIAL SECTOR

Residential investment has seen significant growth in recent years, fuelled by migration from other regions and countries. Barriers

to travel and migration in 2020 due to COVID-19 had less of a negative impact on housing starts on the Island compared to the Lower Mainland. Strong migration trends continued to support the region's strong housing market in 2022. Investment added 2% beyond the market's 2021 peak.

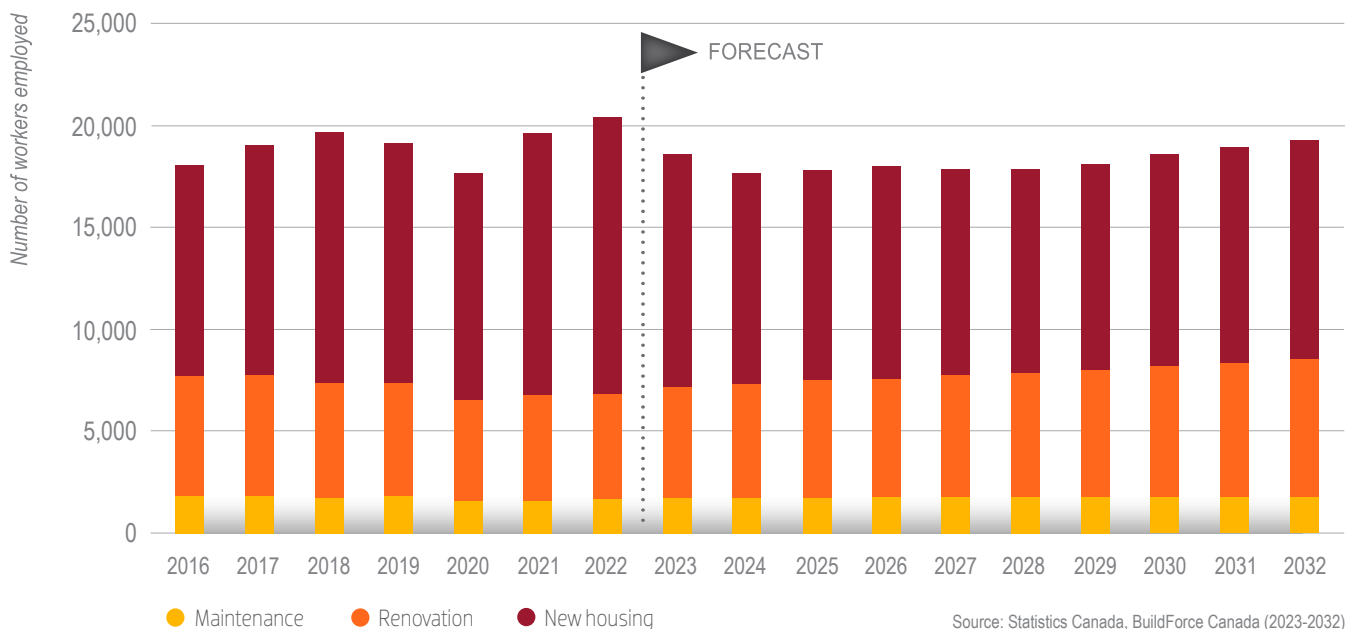
That trend, however, is poised to end in 2023. Housing starts and new-home construction investment are expected to decline across the forecast period due to rising interest rates and reduced demands as the population ages. Through 2025, housing starts are expected to contract by more than 2,600 units (-29%) from their 2021 high. Nearly 1,000 of those reduced units are expected to occur in the single-detached market.

Renovation investment, meanwhile, is anticipated to increase continuously throughout the forecast period, adding 39% to its 2022 value.

As a result of these factors, residential employment is expected to contract through 2024 before beginning a slow, steady upward trend to the end of the decade. Employment losses sustained in 2023 and 2024 are not recovered by the end of the forecast period, with employment contracting by 1,100 workers (-5%) compared to 2022 levels. Employment losses are concentrated in the new-housing sector, which contracts by nearly 2,800 workers (-20%). Even gains in renovation (+1,500 workers; +29%) and maintenance employment (+140 workers; +9%) cannot offset those losses.

Figure 9 shows the anticipated employment trends by sector for residential construction.

Figure 9: Residential construction employment growth outlook, Vancouver Island, British Columbia



⁵ The Vancouver Island & Coast Economic Region includes a number of regional districts, including the Capital Region, Cowichan Valley, Nanaimo, Alberni-Clayoquot, Strathcona, Comox Valley, Powell River, Mount Waddington, and Central Coast.

THE AVAILABLE LABOUR FORCE

As overall activity slows from its 2022 peak, the residential labour force is projected to decline by 800 workers over the forecast period. The expected retirement of just over 4,700 workers during this period translates into a recruitment requirement of 3,900 workers.

RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

The rankings in Table 6 reflect very tight residential labour market conditions in the 2020s due to a surge in demand for new homes, combined with a recovery in renovation work. Conditions are expected to moderate in 2023 and again in 2024, with most sectors possibly experiencing oversupply in the later year. Thereafter, labour markets are expected to remain balanced, based on currently known demands. Note that federal efforts to double the number of new homes built across Canada over the next 10 years were not factored into this analysis.

VANCOUVER ISLAND NON-RESIDENTIAL SECTOR

Non-residential construction in the region was elevated in 2021 with ongoing work on several large projects, including the start of the Nanaimo Correctional Centre. Demand stepped up further in 2022, supported by major health care and education projects, including the Cowichan District Hospital and Cowichan Secondary School replacements, as well as a diverse group of public-transportation and infrastructure projects.

The investment outlook for the non-residential sector in 2023 calls for a slight step back, as work in the engineering-construction sector, in particular, is constrained by reduced activity in the manufacturing sector and the conclusion of several key water projects. The commercial and institutional sectors, meanwhile, are expected to grow, with the former seeing increased investment in the hospitality and tourism sectors, and the latter rising to peak activity with work

Table 6: Residential market rankings, Vancouver Island, British Columbia

TRADES AND OCCUPATIONS – RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bricklayers	4	3	2	3	3	3	3	3	3	3	3
Carpenters	4	3	2	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	4	3	2	3	3	3	3	3	3	3	3
Construction managers	4	3	2	3	3	3	3	3	3	3	3
Contractors and supervisors	4	3	2	3	3	3	3	3	3	3	3
Electricians	4	3	2	3	3	3	3	3	3	3	3
Floor covering installers	4	3	2	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	2	3	3	3	3	3	3	3	3
Home building and renovation managers	4	3	2	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	4	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	3	2	3	3	3	3	3	3	3	3
Plumbers	4	3	2	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	4	3	2	3	3	3	3	3	3	3	3
Tiles setters	4	3	2	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	3	2	3	3	3	3	3	3	3	3
Truck drivers	4	3	2	3	3	3	3	3	3	3	3

Source: BuildForce Canada

ramping up on the two projects in Cowichan. Investment reaches a forecast peak in 2026 and remains relatively unchanged thereafter.

Non-residential employment is expected to remain virtually unchanged across the forecast period, as losses in engineering construction are offset by the combination of gains in industrial, commercial, and institutional (ICI) building construction and maintenance work.

Figure 10 shows the anticipated employment trends by sector for non-residential construction across the forecast period.

THE AVAILABLE LABOUR FORCE

The rise in overall employment will necessitate the industry to recruit an additional 500 workers over the forecast period. The retirement of 3,200 workers during this period will increase the overall regional recruitment requirement to 3,700 workers. The addition of 2,300 new-entrant workers under the age of 30 from local recruitment efforts will help to moderate labour force pressures, but unless recruitment is increased, a potential deficit of 1,400 workers may emerge by 2032.

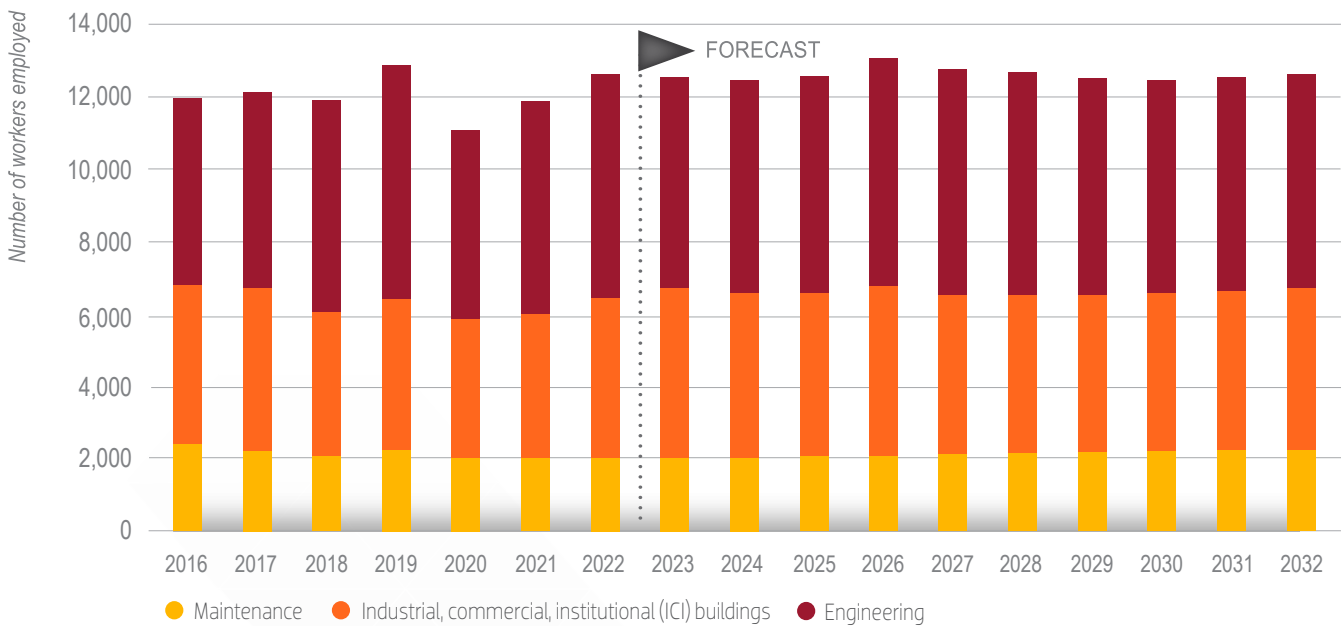
NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

The rankings in Table 7 show significant tightness in non-residential labour markets at the beginning of the forecast period. Conditions were particularly challenging for trades more concentrated in institutional-sector projects in 2021, and deepened in 2022 with the start of work on the Cowichan hospital and a recovery in commercial and industrial-building construction.

As some of this work carries over into 2023, pressures on the labour force are expected to moderate slightly. Labour markets are expected to balance thereafter, with some trades and occupations potentially being oversupplied in 2027.

The widespread conversion of ICI buildings to the greater use of electricity for heating and cooling is excluded from this report, as these efforts are still in their early phases and have had only minor impacts on overall construction labour markets. As these efforts accelerate, they will be added to future BuildForce Canada outlook reports.

Figure 10: Non-residential construction employment growth outlook, Vancouver Island, British Columbia



Source: Statistics Canada, BuildForce Canada (2023-2032)

Table 7: Non-residential market rankings, Vancouver Island, British Columbia

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Boilermakers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	5	3	3	3	3	3	3	3	3	3	3
Concrete finishers	5	4	3	3	3	2	3	3	3	3	3
Construction estimators	5	3	3	3	3	3	3	3	3	3	3
Construction managers	5	3	3	3	3	2	3	3	3	3	3
Contractors and supervisors	5	3	3	3	3	3	3	3	3	3	3
Crane operators	5	4	3	3	3	2	3	3	3	3	3
Drillers and blasters	5	3	3	3	3	3	3	3	3	3	3
Electricians	4	3	3	3	3	3	3	3	3	3	3
Glaziers	5	4	3	3	3	2	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	3	3	3	3	3	3	3	3	3
Heavy-duty equipment mechanics	4	3	3	3	3	3	3	3	3	3	3
Insulators	4	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	5	3	3	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	5	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	5	4	3	3	3	2	3	3	3	3	3
Plumbers	5	3	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	5	3	3	3	3	2	3	3	3	3	3
Residential and commercial installers and servicers	5	3	3	3	3	2	3	3	3	3	3
Sheet metal workers	4	3	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	4	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	3	3	3	3	3
Truck drivers	5	3	3	3	3	3	3	3	3	3	3
Welders and related machine operators	4	3	3	3	3	3	3	3	3	3	3

Source: BuildForce Canada

BUILDING A SUSTAINABLE LABOUR FORCE

THE AVAILABLE LABOUR FORCE

Both employment and labour force numbers across British Columbia's construction sector in 2022 remained below 2019 levels, contributing to a further decrease in the rate of construction unemployment. At the same time, investment in construction activity grew, leading to higher overall industry employment that was partially achieved through out-of-province recruitment.

British Columbia's construction industry will likely need to recruit 52,600 additional workers over the 10-year forecast period to keep pace with expansion and replacement demands. Over the same period, more than 38,200 workers, or 20% of the 2022 construction labour force, are expected to retire. Over the decade, the addition of more than 33,900 new-entrant workers under the age of 30 from local recruitment efforts will help to moderate labour force pressures, but unless anticipated recruitment is increased, a deficit of 18,700 workers is expected to emerge by 2032.

The construction industry is faced with ongoing high levels of activity over the next few years, while balancing against an aging workforce and expected retirements. This will necessitate large numbers of workers over a short period, and these demands cannot be met solely through increasing the number of new or inexperienced workers. Significant recruiting pressures for experienced skilled workers are expected to emerge in the short term.

Figure 11 provides a summary of the estimated changes in the construction labour force across the full 2023–2032 forecast period.

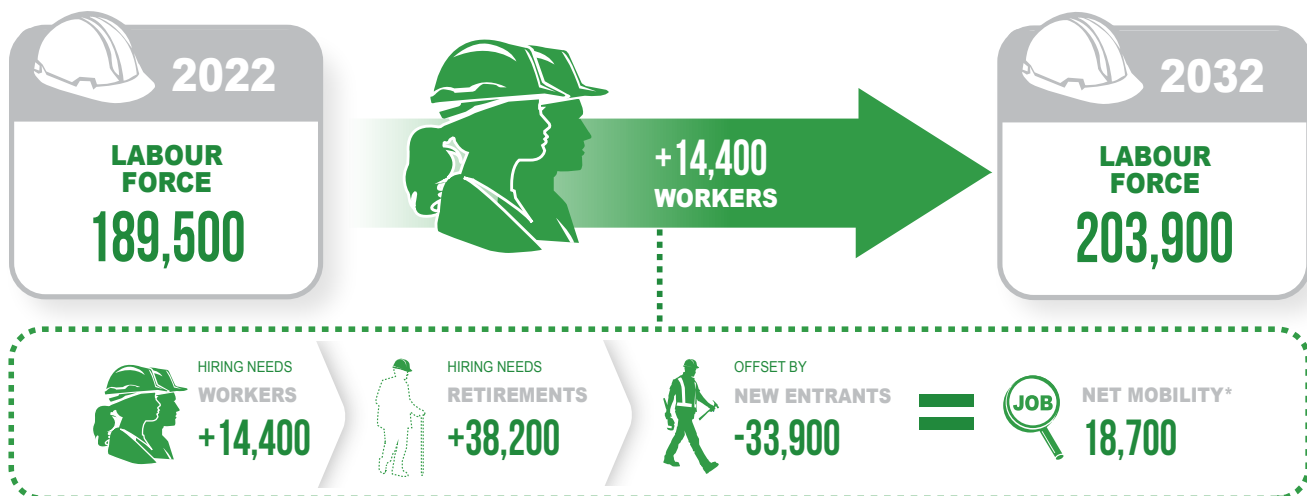
LABOUR FORCE DIVERSIFICATION

APPRENTICESHIP

Apprenticeship is a key source of labour for the construction industry. New registrations in the 25 largest construction trade programs have fluctuated in recent years, but have remained below the peak levels observed in 2013. New registrations fell by 9% between 2013 and 2019, while employment increased by 14% over the same period (see Figure 12). The ratio of new registrations relative to construction employment has fallen, posing the risk for an insufficient number of newly certified journeypersons to sustain workforce requirements over the long term. Selected trades, including Industrial Electrician, Refrigeration and Air Conditioning Mechanic, Roofer, Sheet Metal Worker, and Sprinkler System Installer have seen a significant increase in new registrations over the same period.

Table 8 provides a trade-by-trade breakdown of the anticipated certification requirements to meet the construction industry's share of employment and replacement demand over the forecast period. Based on projected new registrations, several trades are at risk of undersupplying the number of new journeypersons required by 2032. Trades within this group include Heavy Equipment Operator, Painter and Decorator, Gas Fitter, Boilermaker, Bricklayer, Welder, Lather, Powerline Technician, Roofer, Glazier, Mobile Crane Operator, Insulator, Carpenter, Industrial Instrumentation Technician, and Industrial Mechanic.

Figure 11: Changes in the construction labour force, British Columbia

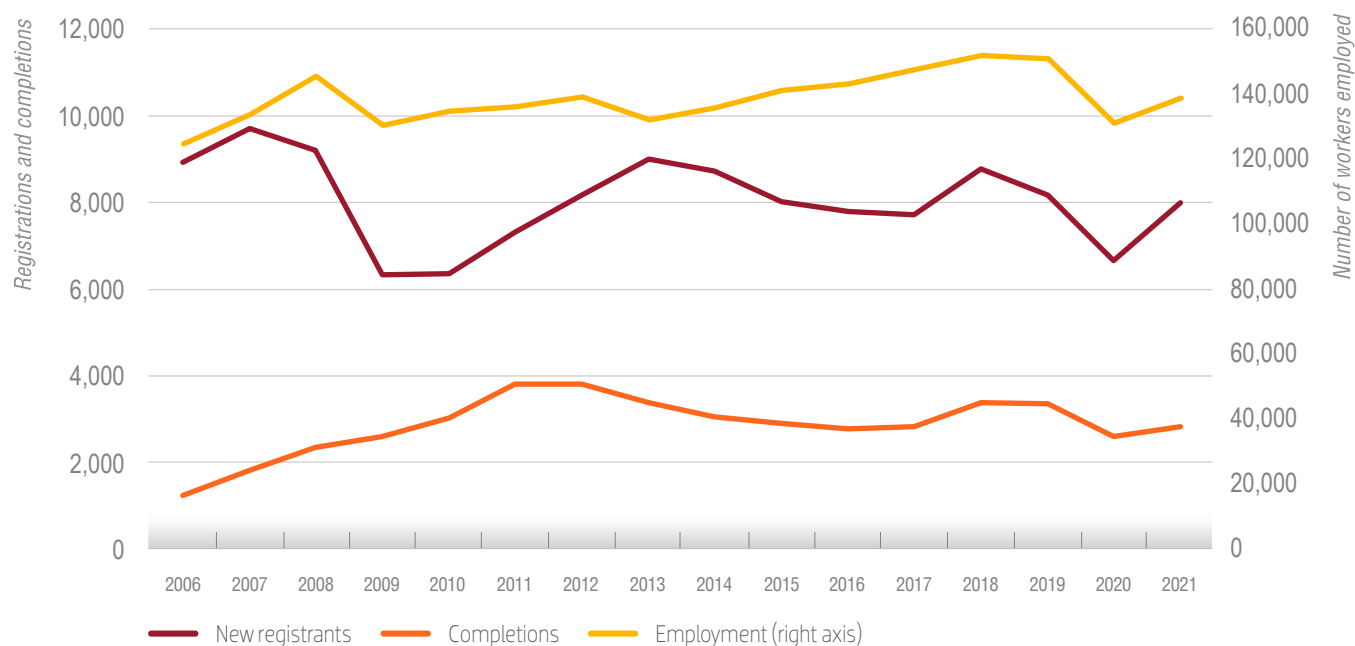


* Net mobility refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.

Note: Due to rounding, numbers may not add up to the totals indicated.

Source: BuildForce Canada

Figure 12: New apprenticeship registrations, completions, and trade employment, British Columbia



Source: BuildForce Canada

Table 8: Estimated construction certification demand and projected target of new entrants by trade, British Columbia, 2023 to 2032

Trade	Total certification demand – construction	Target new registrants – construction	Apprentice certification supply risk – all industries
Heavy Equipment Operator	595	4,500	●
Painter and Decorator	1,155	5,680	●
Gas Fitter	205	684	●
Boilermaker	303	641	●
Bricklayer	289	1,324	●
Welder	699	2,088	●
Lather (Interior Systems Mechanic)	460	2,936	●
Powerline Technician	194	345	●
Roofer	466	2,564	●
Glazier	378	1,367	●
Mobile Crane Operator	213	815	●
Insulator (heat and frost)	228	1,114	●
Carpenter	5,789	28,008	●
Industrial Instrumentation and Control Technician	14	39	●
Industrial Mechanic (Millwright)	290	497	●
Metal Fabricator (Fitter)	252	564	●

- Certifications required exceed projected completions
- Certifications required in line with projected completions
- Projected completions exceed certifications required

continued on next page

Table 8: Estimated construction certification demand and projected target of new entrants by trade, British Columbia, 2023 to 2032 (continued)

Trade	Total certification demand – construction	Target new registrants – construction	Apprentice certification supply risk – all industries
Ironworker (generalist)	112	256	●
Steamfitter/Pipefitter	158	1,000	●
Construction Electrician	5,287	11,779	●
Heavy-Duty Equipment Technician	401	720	●
Sheet Metal Worker	589	1,153	●
Refrigeration and Air Conditioning Mechanic	637	1,196	●
Plumber	2,147	4,909	●
Industrial Electrician	153	267	●
Sprinkler System Installer	101	287	●

- Certifications required exceed projected completions
- Certifications required in line with projected completions
- Projected completions exceed certifications required

Source: BuildForce Canada

UNDER-REPRESENTED GROUPS OF WORKERS

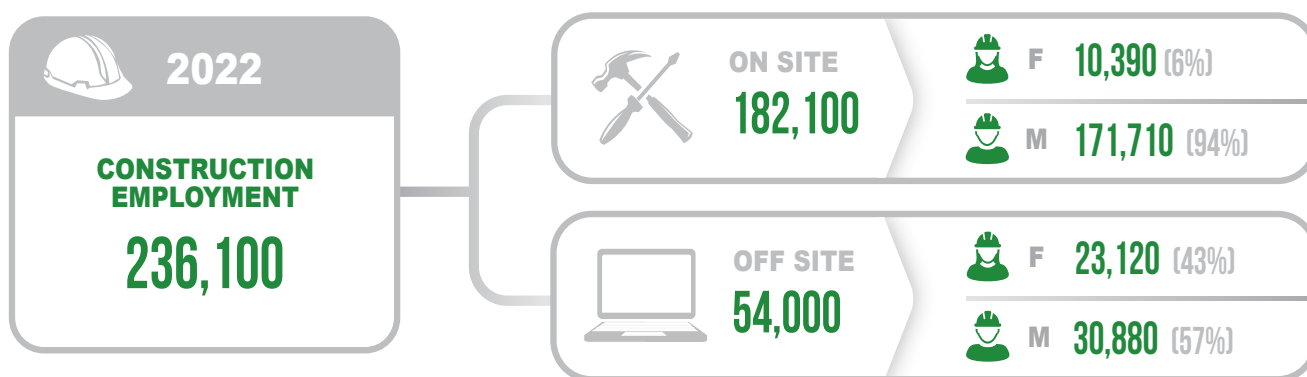
Due in part to lower fertility rates and smaller family sizes in Canada for more than three decades, the share of younger Canadians available to enter the labour force has been in decline for several years. As the baby boomer generation of workers commences retirement over the next decade, the competition for younger workers will be intense. To help mitigate the impact of this demographic shift, the construction industry must diversify its recruitment. In order to succeed, the industry must increase recruitment of individuals from groups traditionally under-represented in the current construction labour force, including women, Indigenous People, and newcomers.

In 2022, there were approximately 33,510 women employed in British Columbia’s construction industry, of which 31% worked on site,

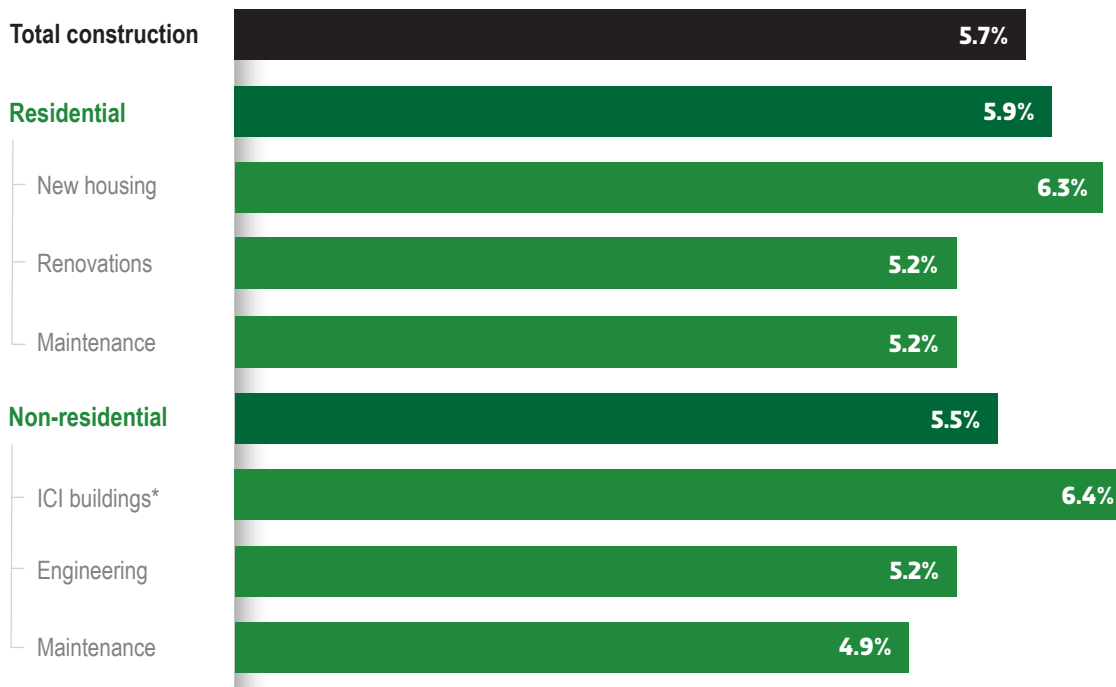
directly on construction projects, while the remaining 69% worked off site, primarily in administrative and management-related occupations. Of the 182,100 tradespeople employed in the industry, women made up 6% (see Figure 13).

The estimated 10,390 tradeswomen in British Columbia are represented across all sectors of construction. Women account for a relatively equal share of total tradespeople in the residential (5.9%) and non-residential (5.5%) construction sectors. Across sectors, new housing and ICI-building construction have the highest representation of women, each accounting for slightly more than 6% of the workforce (see Figure 14). The top five trades and occupations in which women tend to be employed are trade helpers and labourers (21% of all tradeswomen), construction managers (19%), painters and decorators (11%), contractors and supervisors (9%), and carpenters (7%).

Figure 13: Detailed construction employment by gender, British Columbia, 2022



Source: BuildForce Canada calculations based on Statistics Canada’s Labour Force Survey (LFS) and Census of the Population.

Figure 14: Women's share of total direct trades and occupations (on site), British Columbia

* industrial, commercial, institutional

Source: BuildForce Canada calculations based on Statistics Canada's Labour Force Survey (LFS) and Census of the Population.

The Indigenous population is the fastest growing population in Canada and therefore presents recruitment opportunities for British Columbia's construction industry. In 2021, Indigenous workers accounted for 6.2% of the province's construction labour force, which is a slight increase from the share of 6.1% observed in 2016.⁶ The construction share is notably higher than the share of Indigenous People represented in the overall labour force (see Table 9). As the Indigenous population continues to expand, recruitment efforts will need to be dedicated to increasing the industry's share of the population into the labour force.

British Columbia's construction industry may also leverage newcomers (immigrants) to Canada over the forecast period to

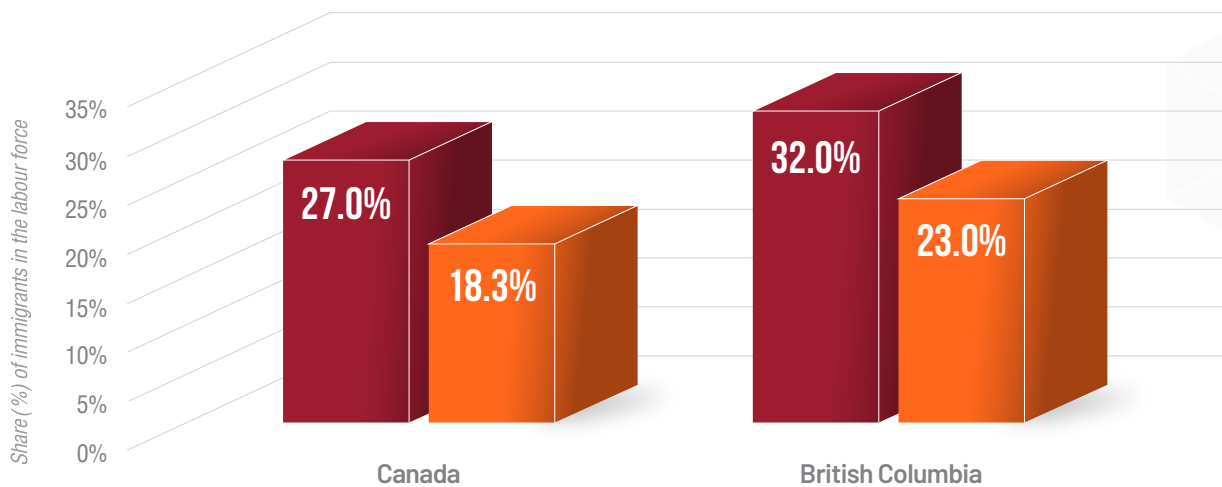
meet labour requirements. Due to the declining natural rate of population growth, immigrants are the primary source of labour force growth in the province. Immigrants have been playing an increasingly important role in replenishing the workforce, with the share of immigrants in the workforce increasing from 26% in 2011 to 32% in 2021. The province has attracted and integrated a higher rate of immigrants into the labour force compared to other provinces; however, immigrants remain under-represented in the provincial construction industry. The construction labour force share of immigrants was 23% in 2021, which is notably lower than the share in the overall provincial labour force. (See Figure 15).

Table 9: Representation of Indigenous population in provincial construction workforce, British Columbia

Industry		Indigenous	Non-Indigenous	Total	Indigenous share of total workforce, %
Construction	2016	12,290	187,695	199,985	6.1%
	2021	14,575	219,750	234,360	6.2%
All industries	2016	122,615	2,305,245	2,427,860	5.1%
	2021	132,165	2,470,945	2,603,110	5.1%

Source: BuildForce Canada calculations based on Statistics Canada's 2021 and 2016 Census of the Population

⁶ Statistics Canada, 2021 Census, custom data request.

Figure 15: Share (%) of immigrants in the construction labour force, 2021

● All industries ● Construction

Source: BuildForce Canada calculations based on Statistics Canada's 2021 data.

Based on historical settlement trends, the province is expected to welcome 799,620 new international migrants between 2023 and 2032. As these individuals will make up an increasing share of the province's core working-age population, additional recruitment efforts will be required to ensure the construction industry recruits its share of newcomers into the labour force.

CONCLUSIONS AND IMPLICATIONS

British Columbia has been one of the busiest construction markets in Canada for several years, with major non-residential projects stacked on top of a booming residential sector. After recording peak levels of investment in 2021 and 2022, growth is expected to step back in 2023 and 2024.

Rising interest rates are anticipated to cool residential construction investment, and housing starts in particular, in 2023 and are expected to do so again in 2024. As consumers adjust to higher borrowing costs over the near term, investment levels are expected to rise again to accommodate the higher levels of migration to the province. Meanwhile, renovation-sector investment is expected to grow almost continuously as consumers choose to maintain their assets rather than pursuing new housing. By the end of the forecast period, residential construction employment is up 6%, with significant gains in renovation and maintenance work offsetting declines in new-home construction.

Growth in non-residential construction investment in the province has been on the rise for the last several years, driven by a long

list of major heavy-industrial, public-transit, education, hospital, highway, and bridge projects, as well as a recovering commercial-building component. Employment peaks in 2023, with moderate fluctuations across the remainder of the forecast period in line with the timing of major projects. At peak, tight labour market conditions translate into significant recruiting challenges that carry into 2024 for some trades. Employment recedes modestly to 2029 but ends the forecast period up 2% (+1,400 workers) compared to 2022, as renewed maintenance activity offsets declines in engineering construction.

The industry faces the added challenge of an aging workforce and the expected retirement of more than 38,000 workers over the forecast period, or 20% of the current labour force.

Meeting labour force demand requirements will require a combination of industry strategies that include increased local recruitment and training, attracting newcomers to the industry as well as recruiting workers displaced from other industries, and, during periods of peak demands, bringing in construction workers from other provinces.

The industry scenario-based approach developed by BuildForce Canada to assess future labour market conditions provides a powerful planning tool for industry, government, and other stakeholders to better track labour market conditions and identify potential pressure points. The assumed timing of proposed major projects in the outlook underpins the market conditions anticipated. Any changes to these assumptions present risks and potentially alter anticipated labour market conditions.

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The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada

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Canada's Sectoral Workplace
Solutions Program



APRIL 2023



Construction & Maintenance Looking Forward

British Columbia

An Assessment of Construction Labour Markets from 2023 to 2032

Construction and Maintenance Looking Forward is an industry planning tool.



Funded in part by the Government of Canada's Sectoral Workforce Solutions Program.



BuildForce Canada and the scenario forecast



About BuildForce Canada

- BuildForce was originally created in 2001 as the Construction Sector Council.
- As a national industry-led organization, it is committed to working with the construction industry to provide information and resources to assist with its management of workforce requirements.

Strategic partners

Alberta Council of Turnaround Industry
Maintenance Stakeholders

BC Hydro

Canada's Building Trades Unions

Canadian Construction Association

Canadian Home Builders' Association

Canadian Natural Resources Limited

CLAC

Irving Oil

LNG Canada

Merit Canada

National Construction Labour Relations Alliance

Ontario Power Generation

Progressive Contractors Association of Canada

Shell Canada

Suncor

About the scenario forecast

- This BuildForce scenario forecast is based on:
 - macroeconomic and demographic data
 - construction and maintenance investment in residential and non-residential sectors
 - inventory of major construction projects
 - input of provincial LMI committees
- The BuildForce labour market model covers 34 “on-site” trades and occupations and an “other” category that includes all remaining occupations (mostly office/administrative staff).
- Construction industry totals align with Statistics Canada’s Labour Force Survey.



Introduction and highlights

- Provincial industry facts
- Highlights

Provincial industry facts: 2022



236,100

- number of men and women employed in a variety of construction trades and professions

9%

- share of provincial gross domestic product (GDP)

1 in 12

- number of workers in the labour force employed by the construction sector



Provincial industry facts: 2022



Provincial trends

- Employment in the province includes some seasonality, with unemployment rates typically rising from December to January, then declining from March to November.

Employment* (2022 average: 228,100 workers)

- Employment in the province peaked at 253,300 workers in August, rising from a low of 208,700 recorded in January. Average employment rose by 12,300 workers (+5.7%) from 2021 levels.

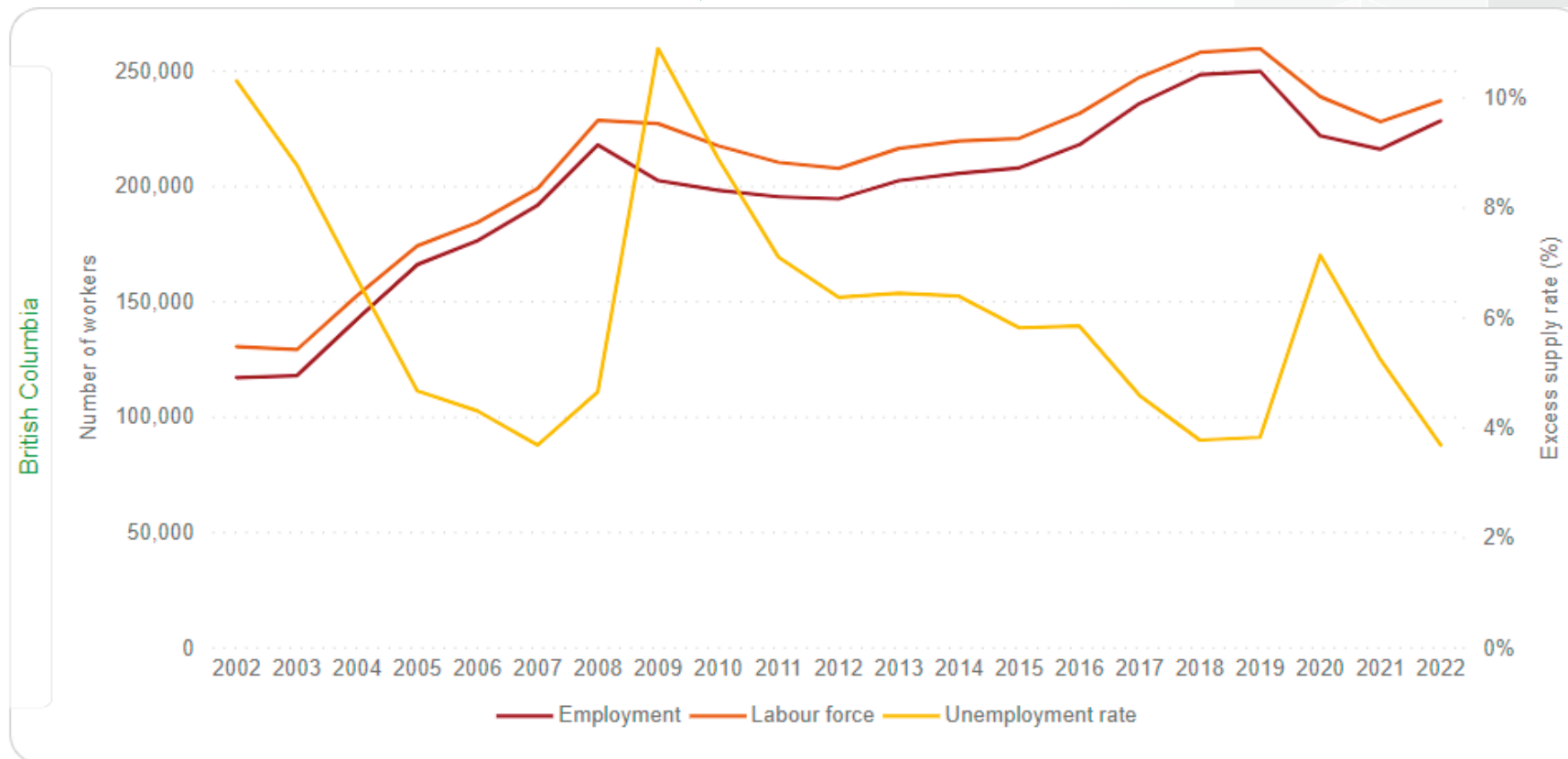
Labour force* (2022 average: 236,800 workers)

- The labour force peaked in October at 259,600 workers, with the lowest levels recorded in January at 223,700. The average labour force grew by 9,100 workers in 2022 (+3.8%) from 2021.

Unemployment*

- The inability of the labour force to grow as quickly as employment helped contribute to lower levels of unemployment in the province, with the unemployment rate reaching 2.2% in October.

Construction labour market, 2002–2022



 [Construction and Maintenance Looking Forward, Labour Force Survey](#)

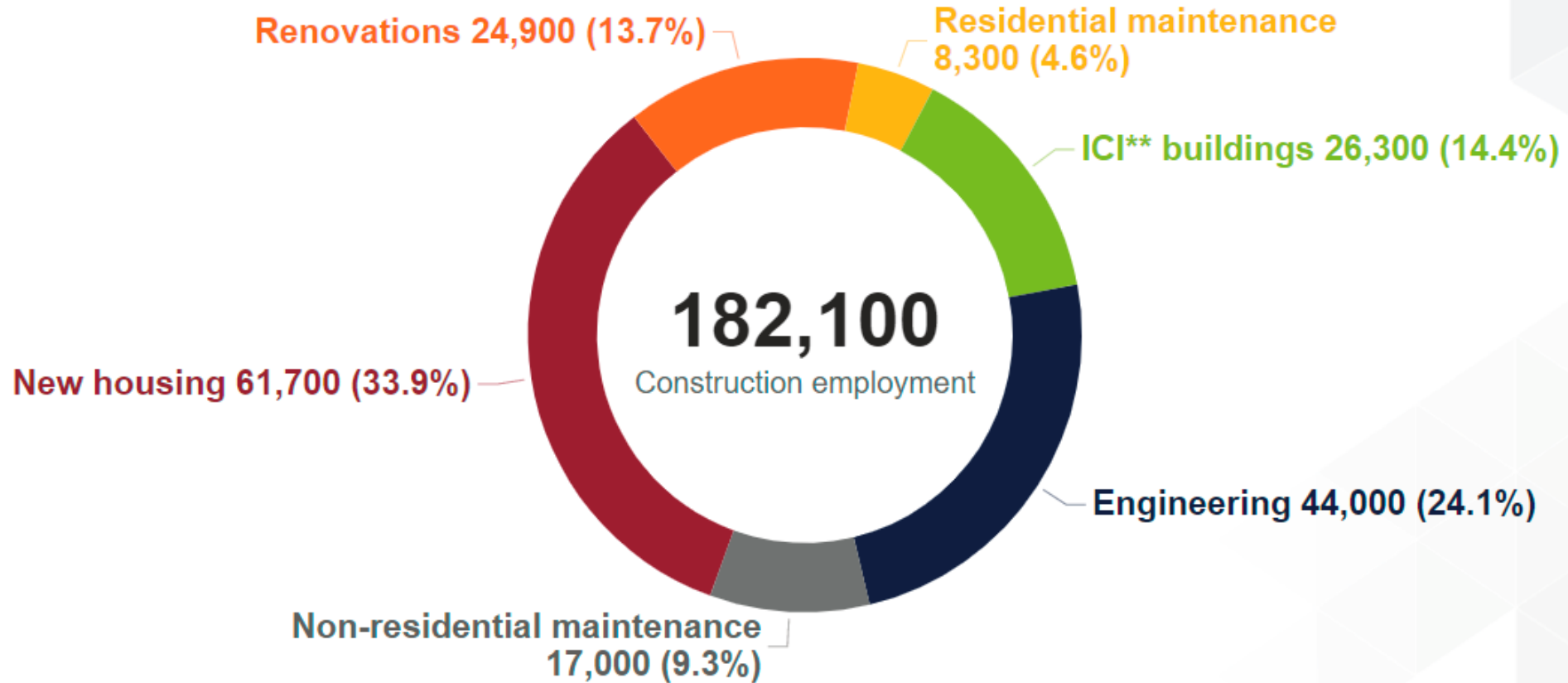
Source: Statistics Canada. Table 14-10-0022-01 Labour force characteristics by industry, monthly, unadjusted for seasonality

* Note: **Employment, labour force, and unemployment** include administrative and other off-site occupations.

Provincial construction industry facts: 2022



Total direct trades and occupations*



Source: Statistics Canada, BuildForce Canada (2022)

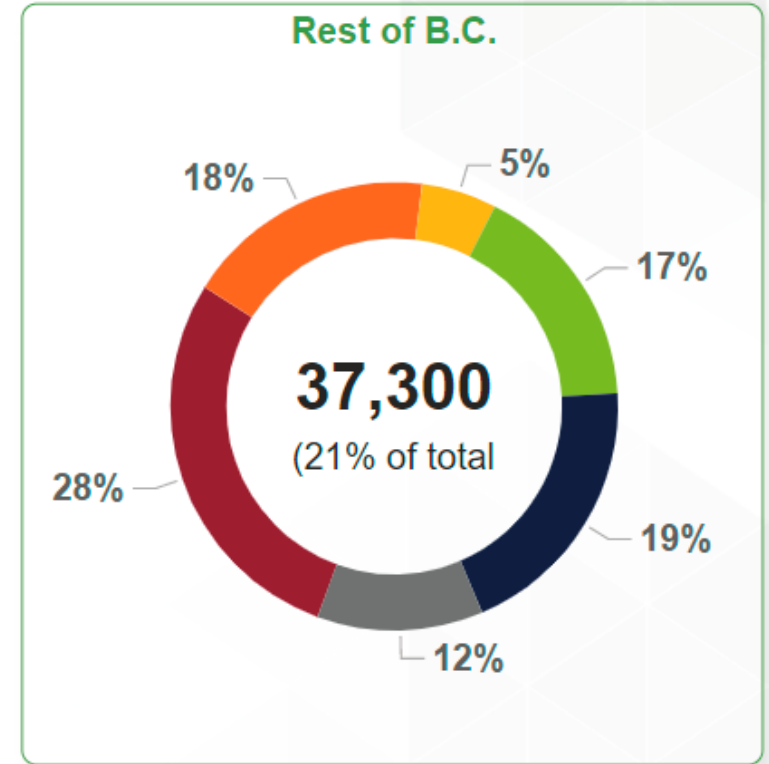
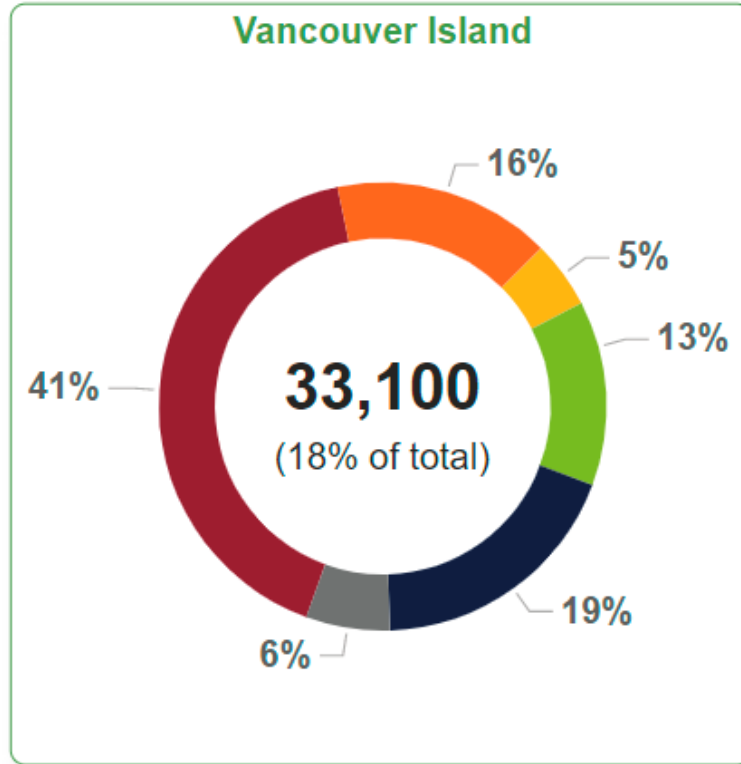
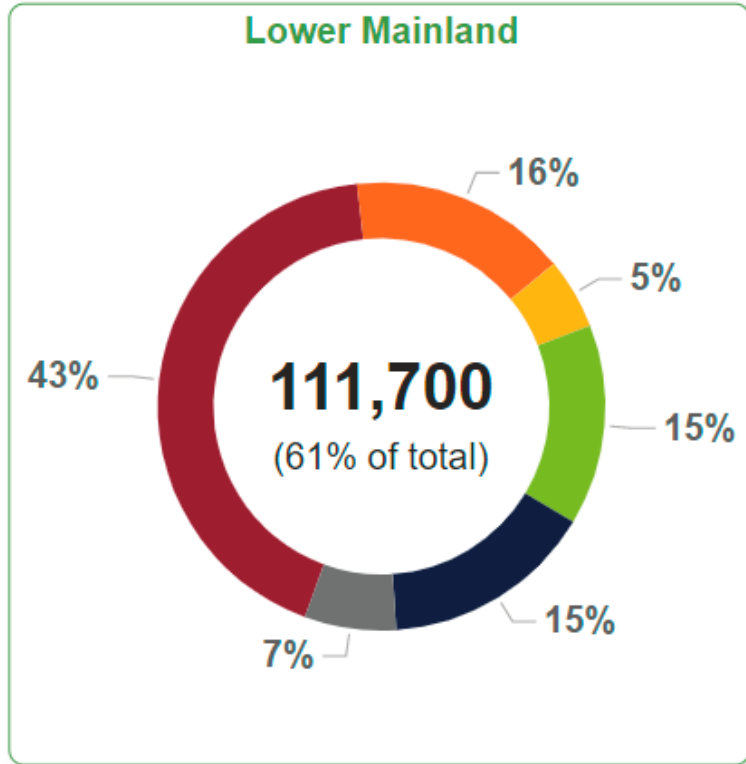
* **Total direct trades and occupations** excludes individuals employed within the construction sector in office administration and management positions.

** industrial, commercial, institutional

Provincial construction industry facts: 2022



Total direct trades and occupations*



- New housing
- Renovations
- Residential maintenance
- ICI** buildings
- Engineering
- Non-residential maintenance

Source: Statistics Canada, BuildForce Canada (2022)

* **Total direct trades and occupations** excludes individuals employed within the construction sector in office administration and management positions.

** industrial, commercial, institutional



Construction industry



Residential sector

Includes single dwellings, semi-detached, townhouses, row houses, and apartments and condominiums

- The reopening of the economy and a return of foreign students helped contribute to lower vacancy rates within the province.
- Strong real estate demand and low borrowing rates contributed to a surge in new-home construction in the first half of the year.
- However, as interest rates increased throughout the year, starts and real estate transactions moderated, leaving starts slightly off the peak achieved in 2021.
- Both single-detached and multi-unit construction was impacted.



Non-residential sector

Includes industrial, commercial, and institutional buildings; roads, highways, and bridges; and other engineered civil projects

- Engineering construction remained elevated and peaked in 2022.
- Ongoing work on pipeline projects, the Site C hydro development, and the liquefied natural gas facility in Kitimat helped contribute to strong engineering investment levels.
- The emergency rebuild of the transportation assets impacted by the strong storms of 2021 also contributed to a modest rise in investment levels in road, highway, and bridge infrastructure.
- Strong institutional investments in hospitals and health care facilities produced a rise in ICI construction, despite flat commercial and a modest decline in industrial building construction.



Construction industry



Residential sector

Includes single dwellings, semi-detached, townhouses, row houses, and apartments and condominiums

- Rising interest rates will pull housing starts down in 2023 and 2024.
- As consumer expectations adjust to higher borrowing costs, strong demand for residential homes begins rising in 2025 and peaks in 2026.
- Increased federal immigration levels and interprovincial migration to the province maintains housing starts around 44,000 units for the remainder of the forecast period.



Non-residential sector

Includes industrial, commercial, and institutional buildings; roads, highways, and bridges; and other engineered civil projects

- Investment levels are expected to moderate slightly in 2023 and again in 2024 due to global uncertainty and lower consumer spending.
- Investment rises to a peak in 2027, followed by a slight decline thereafter to 2030. Further growth is expected to lift investment levels anew thereafter to 2032.
- Employment is expected to peak in 2023, followed by modest declines thereafter to 2029.
 - Engineering-related employment declines to 2025, followed by a slight increase out to 2032.
 - Industrial, commercial, and institutional employment is expected to peak in 2024 before moderating to 2029.
 - Maintenance-related employment is expected to rise continuously throughout the forecast period.



DEMOGRAPHIC TRENDS

British Columbia

10-year annual average (2023–2032)

1.43%



POPULATION
GROWTH

51,900



BIRTHS

50,500



DEATHS

80,000



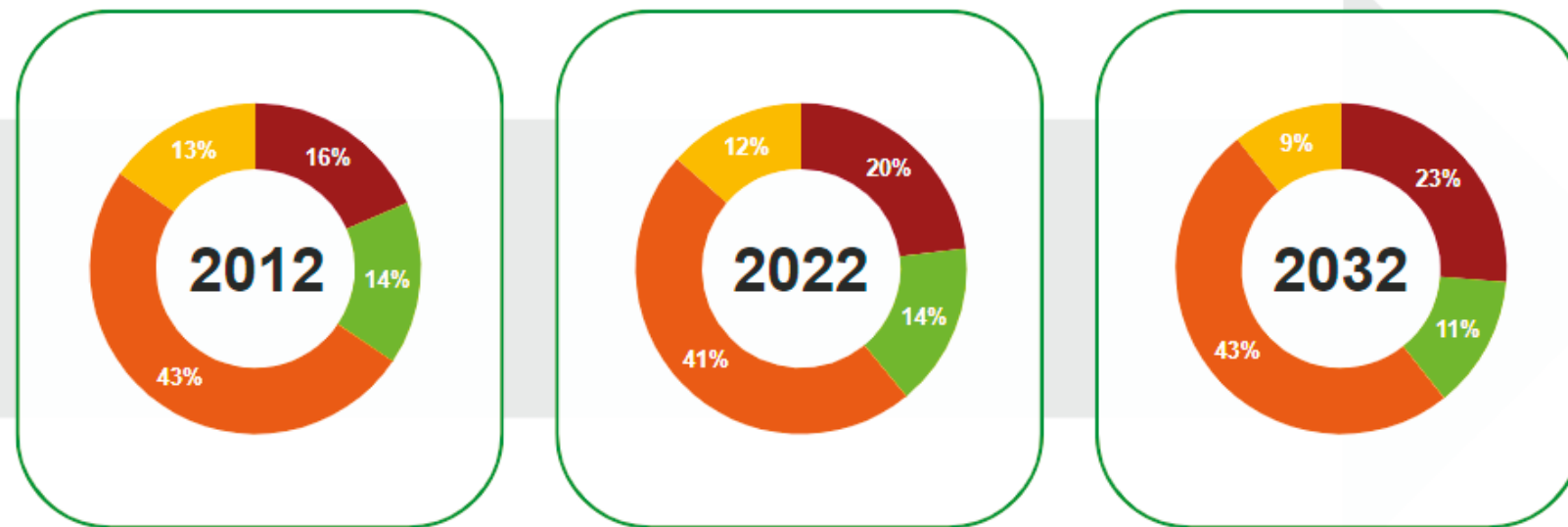
NET
IN-MIGRATION

Population age distribution: 2012–2032



- Canada's population is aging, and this will create numerous challenges for all industries regarding future labour force recruitment.
- All industries will be competing for a shrinking pool of youth over the coming decade. The share of people aged 15 to 25 years who are about to enter the workforce was 12% in 2022, and is expected to decline to 10% by 2032.
- At the same time, the share of the population over age 65 and mainly retired will continue to grow – from 18% in 2022 to 22% in 2032.
- On the positive side, the growth in immigration should support further growth in the core working-age group of 25–54 years, that may help moderate labour market pressures over the next decade.
- This shift will require domestic industries to improve their recruitment of newcomers to supplement their traditional domestic recruitment programs.

15 to 24 years 25 to 54 years 55 to 64 years 65 + years

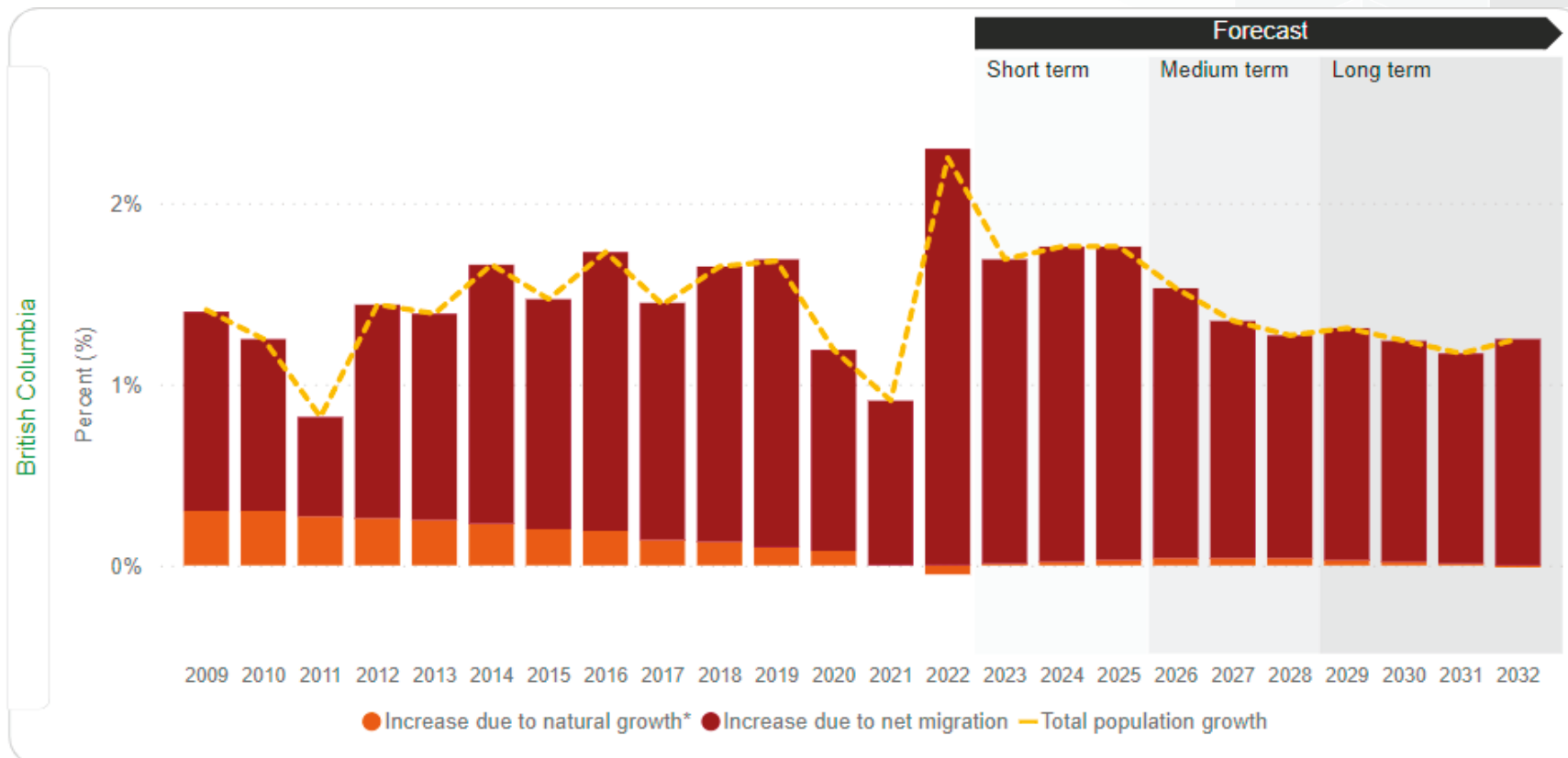


Components of population growth



- British Columbia is considered a relatively older province whose natural rate of population growth* has turned negative since 2022, when the number of deaths exceeded births in the province.
- The natural growth rate has been in decline for some years due in part to families having fewer children than past generations of Canadians.
- With the higher targets for international migrants in their prime working and child-bearing years, some upward pressure on fertility rates is expected that will help maintain the natural rate of population growth slightly positive.
- Despite the low rate of growth, the province is expected to maintain a population growth rate above 1% throughout the forecast period due to positive international and domestic migration.
- The increase in immigration will help to grow the core working-age group (25 to 54 year olds) and help to offset the declining numbers of youth entering the labour force.

2023–2032



Construction and Maintenance Looking Forward, Components of Population Growth

Source: Statistics Canada, BuildForce Canada (2023-2032)

* **Natural rate of population growth** refers to the growth in the population due to the number of births relative to the number of deaths, which leads to a positive or negative natural rate.



Economic environment

- Financial markets and inflation
- Global economy (2023–2032)
- Commodity prices
- Provincial GDP growth



Consumer price index (CPI)

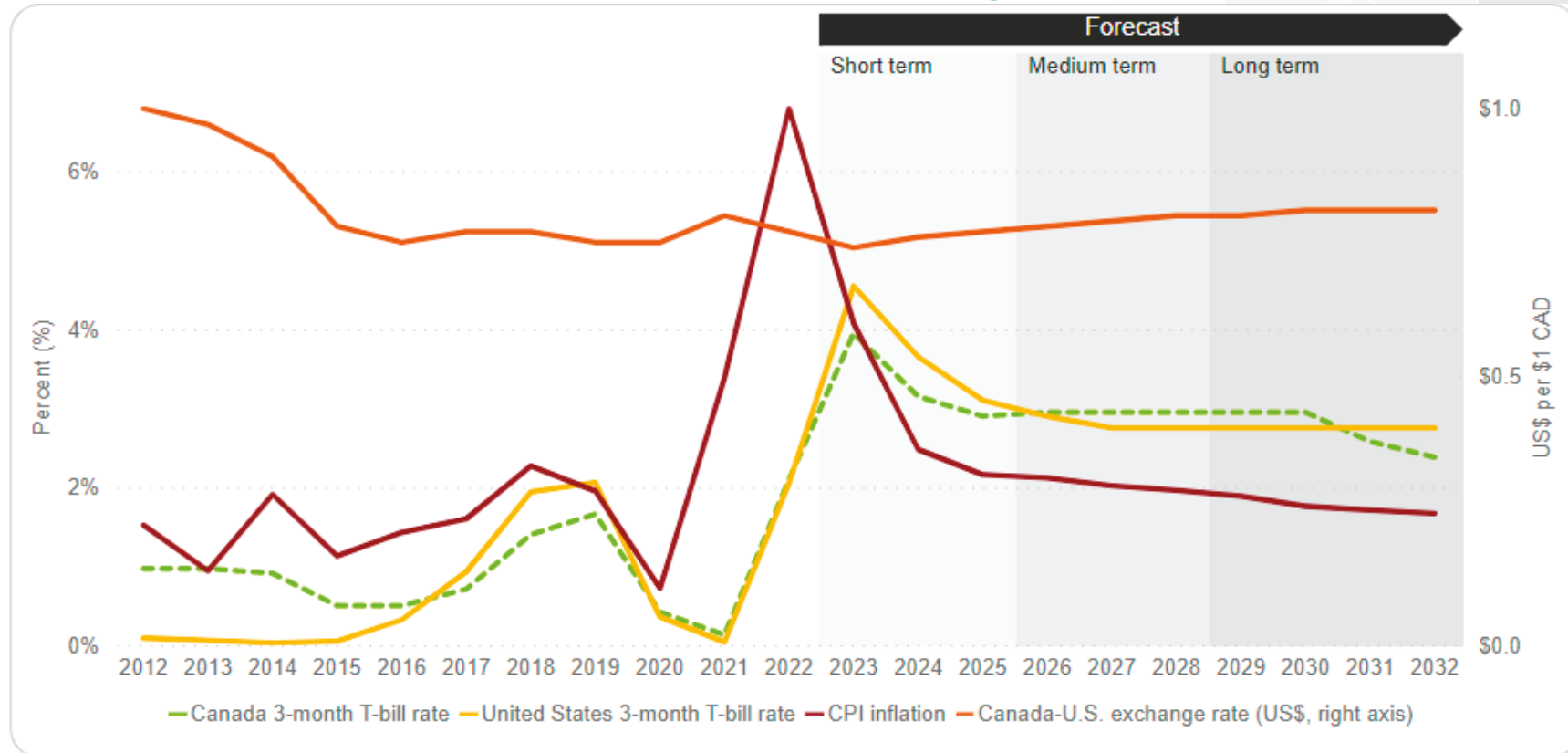
- Central banks' efforts to tighten monetary policy appear to be helping to control inflation. Although food, labour, transportation, and energy prices remain high, price increases appear to be moderating. Growth in the CPI peaked in Canada and the United States – at 8.1% and 9% respectively – during the summer months and has trended downward since.
- Overall, the CPI in Canada was expected* to grow by 7% by the end of 2022, and to fall to an average of 3.5% in 2023, before returning to more normal levels of approximately 2% for the remainder of the forecast period.

Canadian dollar

- After rebounding in 2021, the Canadian dollar is expected to continue on a steady upward trajectory into the early 2030s. The dollar will be buoyed by a general strength in commodity prices and appreciating terms of trade with the United States. It should trade at or above 80 cents (\$US) over the decade.

* estimated, as final data for the year was unavailable at the time of publication

Interest rates, CPI inflation, and exchange rate



Construction and Maintenance Looking Forward, Financial Markets

Source: Statistics Canada, BuildForce Canada (2023–2032)



Global

- The global economy recovered in 2021, but experienced new challenges in 2022 related to the war in Ukraine. The war contributed to further inflationary pressures on top of those created by the global response to the COVID-19 pandemic. Canada's largest trading partners are facing economic downturns in 2023 as inflation weakens household spending and global trade. Growth should improve after 2023 as inflation softens and economies recover.

United States

- Estimates for growth in the United States vary strongly and are dependent on the degree to which consumer spending is impacted by inflation and rising interest rates. The consensus for growth is 0.3%.

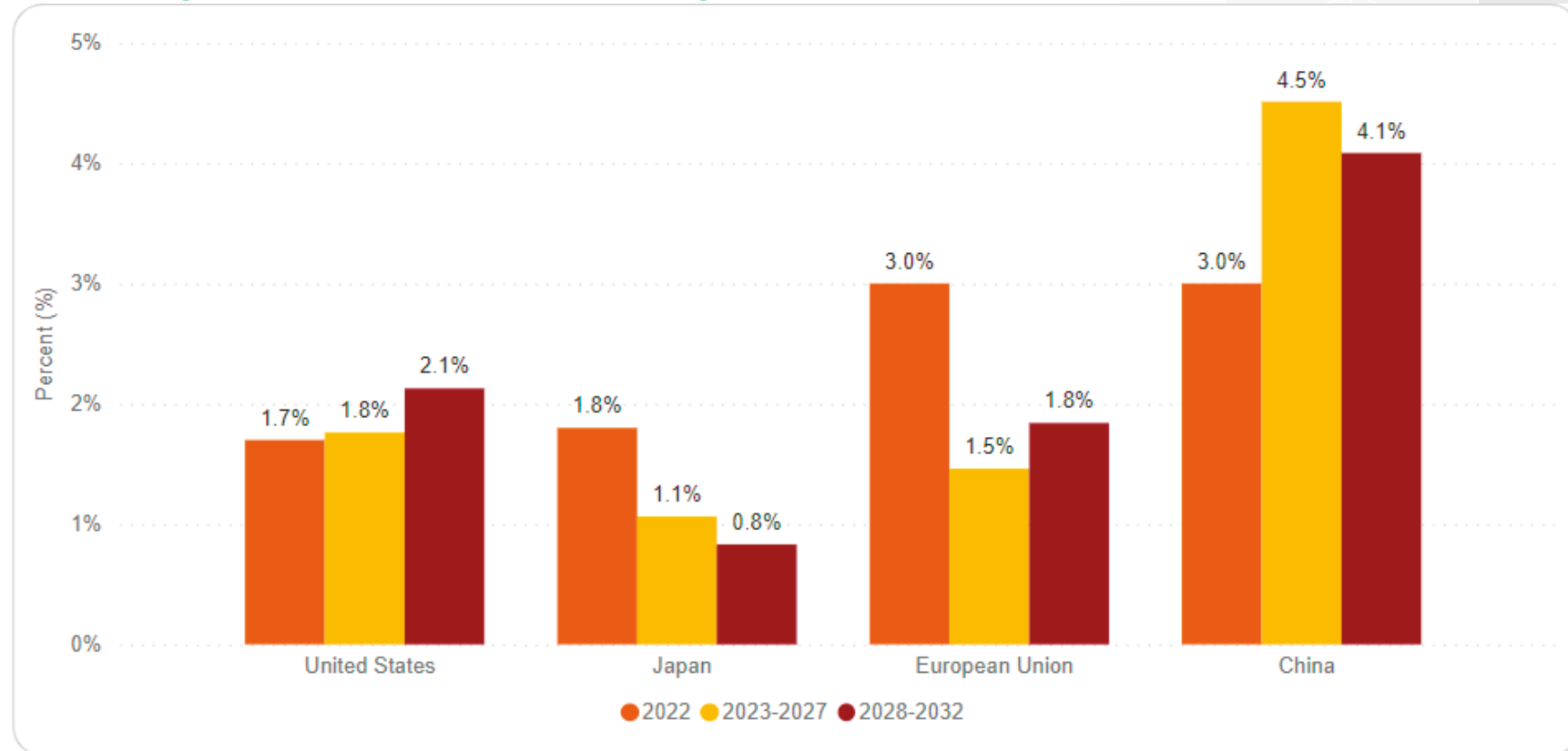
Europe

- Europe is contending with energy supply challenges, with many countries looking to source liquefied natural gas imports to replace Russian natural gas. This in turn could force businesses to limit outputs in response to surging costs and weakened consumption by consumers.

Others

- Weaker global demand will create downward pressure on growth in China and Japan. Asian economies recovered quickly, but demand is expected to decline in 2022–2023. China is expected to see growth of about 3% in 2023, rising to 5% by mid-decade.

Trading partners' real GDP growth



Construction and Maintenance Looking Forward, Trading Partners

Source: World Bank, IMF, OECD, BuildForce Canada

Economic environment



Oil

- The WTI oil price has come down from its peak levels of approximately \$120 per barrel, and should continue to decline as global supply improves and growth weakens into 2023. Although producers are raising output, the price environment is expected to remain high, and should remain supportive of expansions for producers.

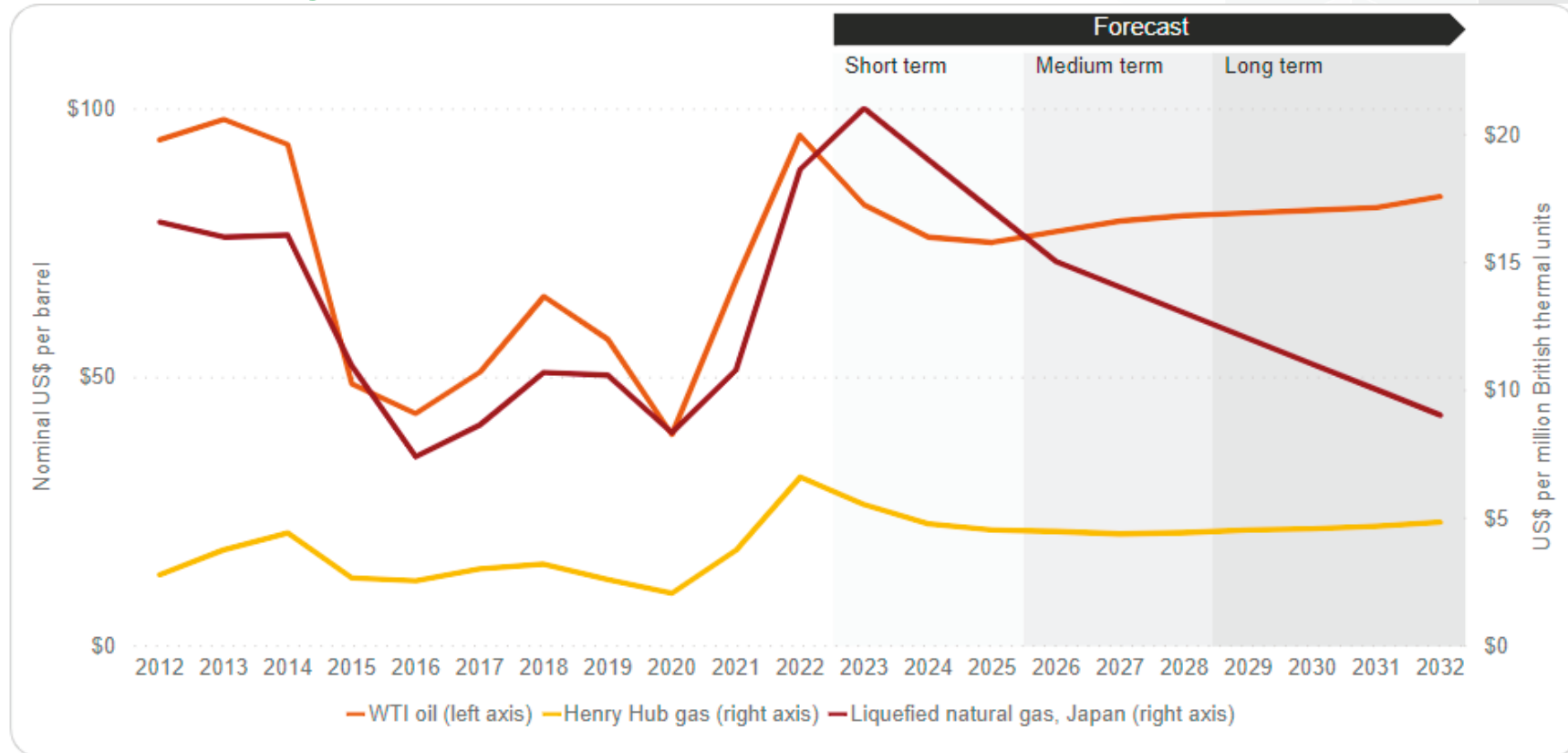
Natural gas

- Natural gas prices shown here are taken from the Henry Hub price in the United States, rather than in Europe. The outlook for the North American price is expected to follow a similar pattern to the price of oil, with prices coming down from historic highs in the short term and trending higher over the long run due to global economic growth and transition away from coal-based electricity production.

Liquefied natural gas (LNG)

- LNG prices shown here are presented in terms of the Japanese price. The energy crisis in Europe is causing import prices there to spike. The Japanese price is expected to decline gradually as new facilities come online over the next decade but will remain elevated by historical norms.

Oil, natural gas, and LNG



Construction and Maintenance Looking Forward, Oil & Gas

Source: U.S. Energy Information Administration, BuildForce Canada (2023-2032)



Precious metals

- Prices for precious metals have been elevated through the pandemic, and with interest rates at record lows. Rate increases by central banks are expected to drive prices downward into 2023. The expectation of higher interest rates in the coming years will lower prices further.

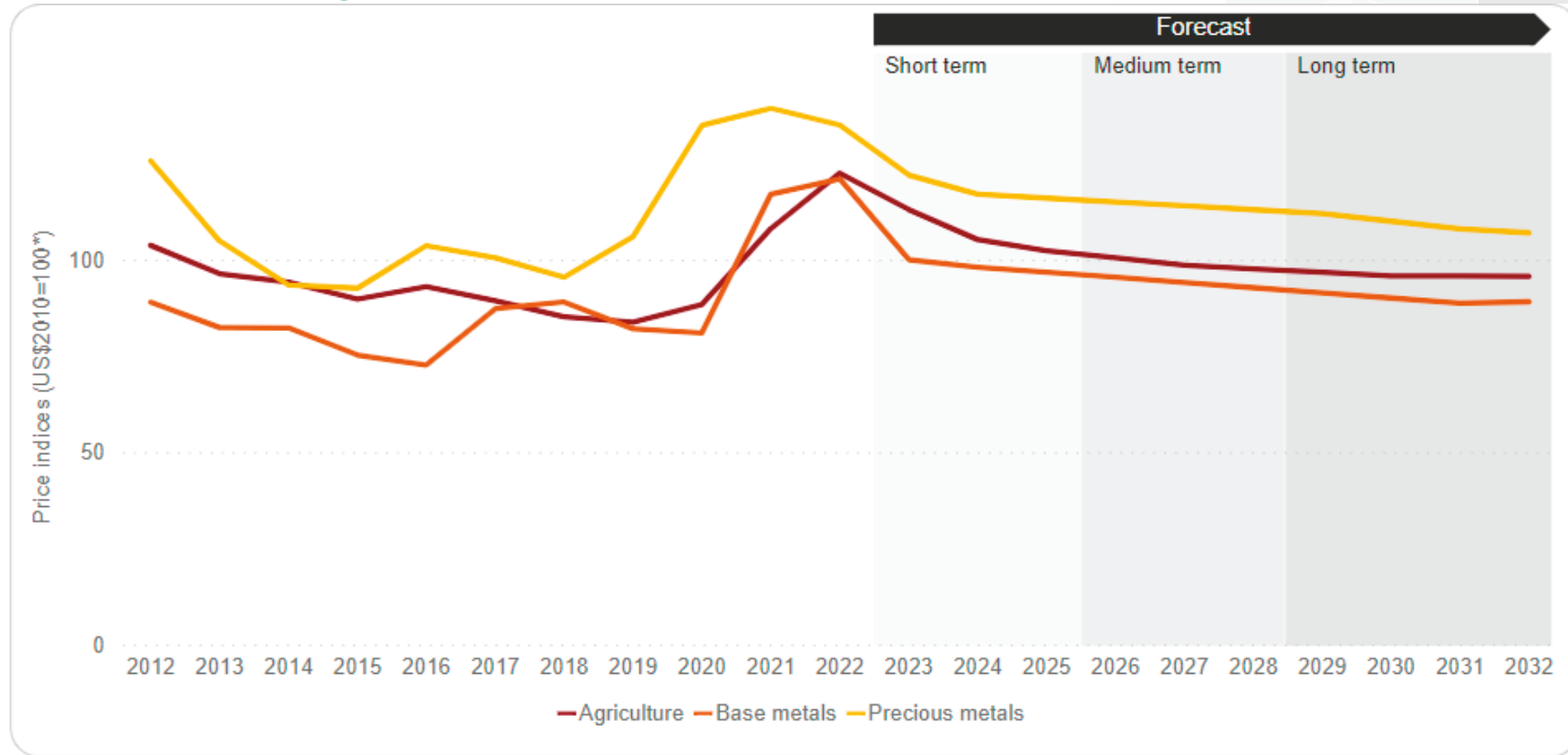
Base metals

- Prices for base metals reached record levels in 2021 caused by demand from stimulus programs and supply challenges. The war in Ukraine created additional impacts earlier in 2022, but these appear to be mitigated. Prices should fall in the short term with the impending global growth slowdown; average prices will remain above historical levels over the decade.

Agriculture

- Agriculture prices increased by as much as 30% in 2022 with the start of war in Ukraine. They have since softened to about 8% above where they were in 2021. Tightening monetary policy and projected supply improvements are expected to soften prices further before they level off in the early 2030s.

Metals and agriculture



Construction and Maintenance Looking Forward, Metals & Agriculture

Source: World Bank Commodities Price Forecast

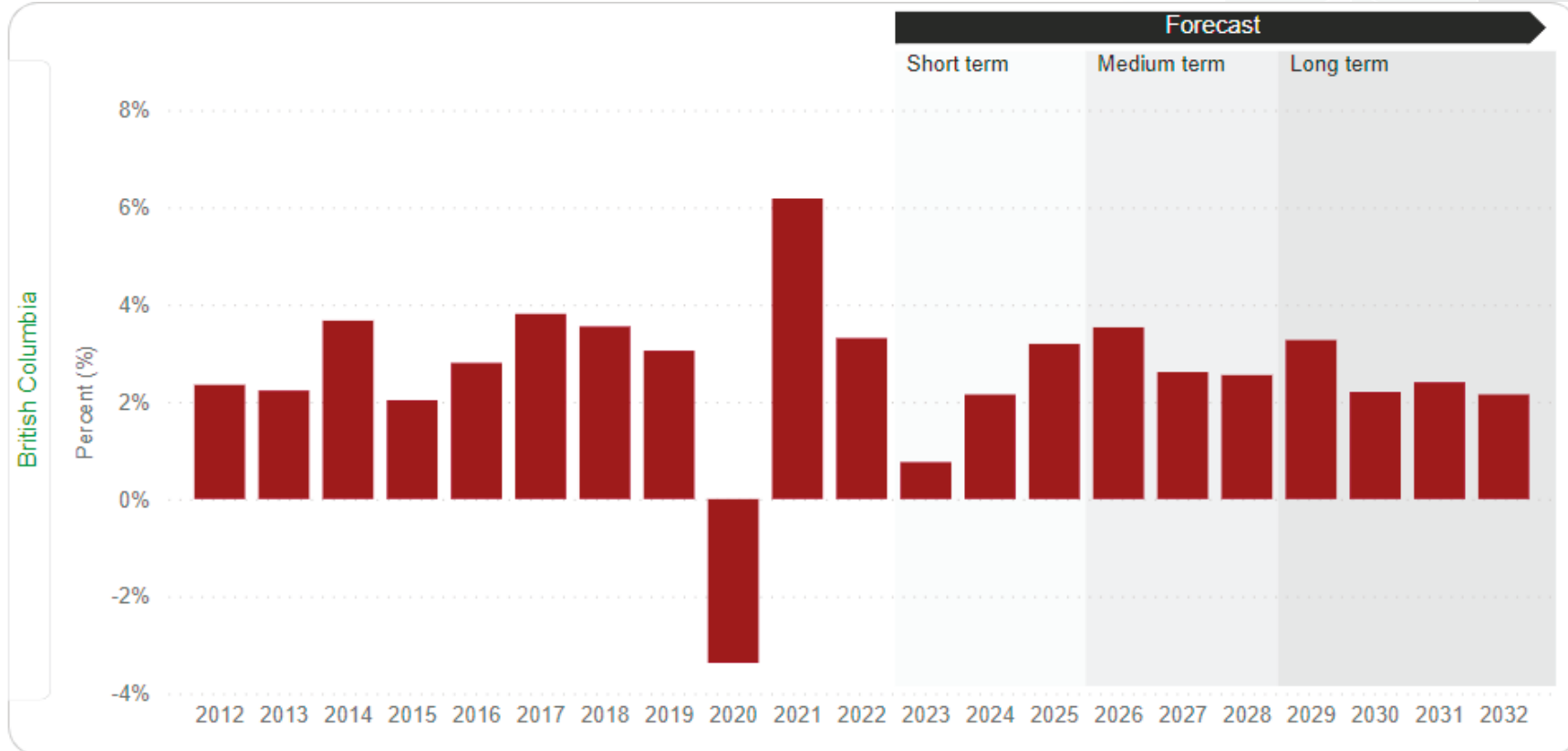
* US\$2010 indicates that the prices are in year 2010 US dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change in prices, factoring out growth (increase in value) due to inflation.



Gross domestic product (GDP)

- Interprovincial migration facilitated a rapid recovery in 2022 in both residential and business investment.
- For 2023, population growth is expected to remain strong.
- Rising interest rates are expected to moderate residential investment levels, while business investment will be affected by the impact of inflation on consumer spending.
- Inflation will contribute to a decline in GDP in 2023.
- As the global economy recovers, a modest increase in GDP is expected to follow, commencing in 2024, that should keep levels above 2% through to 2027.
- Higher levels of international migration are expected to keep growth above 1% throughout the remainder of the forecast period.

Provincial real GDP growth



Construction and Maintenance Looking Forward, Provincial GDP

Source: Statistics Canada, BuildForce Canada (2023–2032)

Note: 2022 GDP data is estimated, as final totals were unavailable at the time of publication.



Provincial construction industry overview

Construction industry overview



Residential

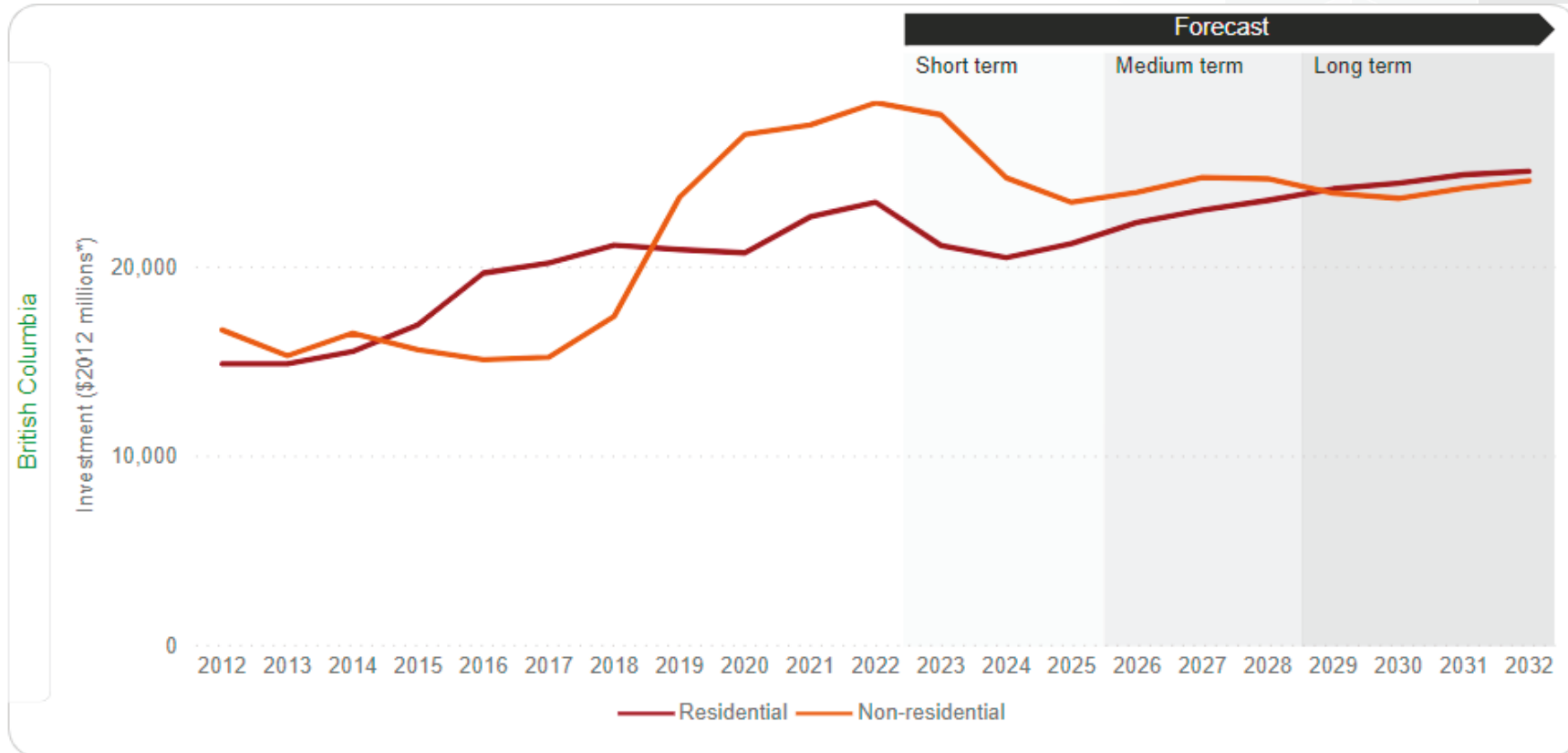
- Rising interest rates will have a short-term impact on investment levels.
- As consumers adjust to higher borrowing costs, investment levels are expected to rise again to accommodate the higher levels of migration to the province.

Non-residential

- Investment levels in the non-residential sector are expected to moderate slightly in 2023 and again further in 2024 due to global uncertainty and lower consumer spending in the province, as well as investment declines related to several large projects that will be winding down in 2024.
- As the global economy recovers, investment levels are expected to rise in both the ICI** and engineering sectors, creating a mid-forecast peak in 2027, followed by a slight decline thereafter to 2030.
- Further growth is expected to lift investment levels anew thereafter to 2032.

** industrial, commercial, institutional

Investment



Construction and Maintenance Looking Forward, Construction Investment

Source: Statistics Canada, BuildForce Canada (2023–2032)

* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Construction industry overview: Employment



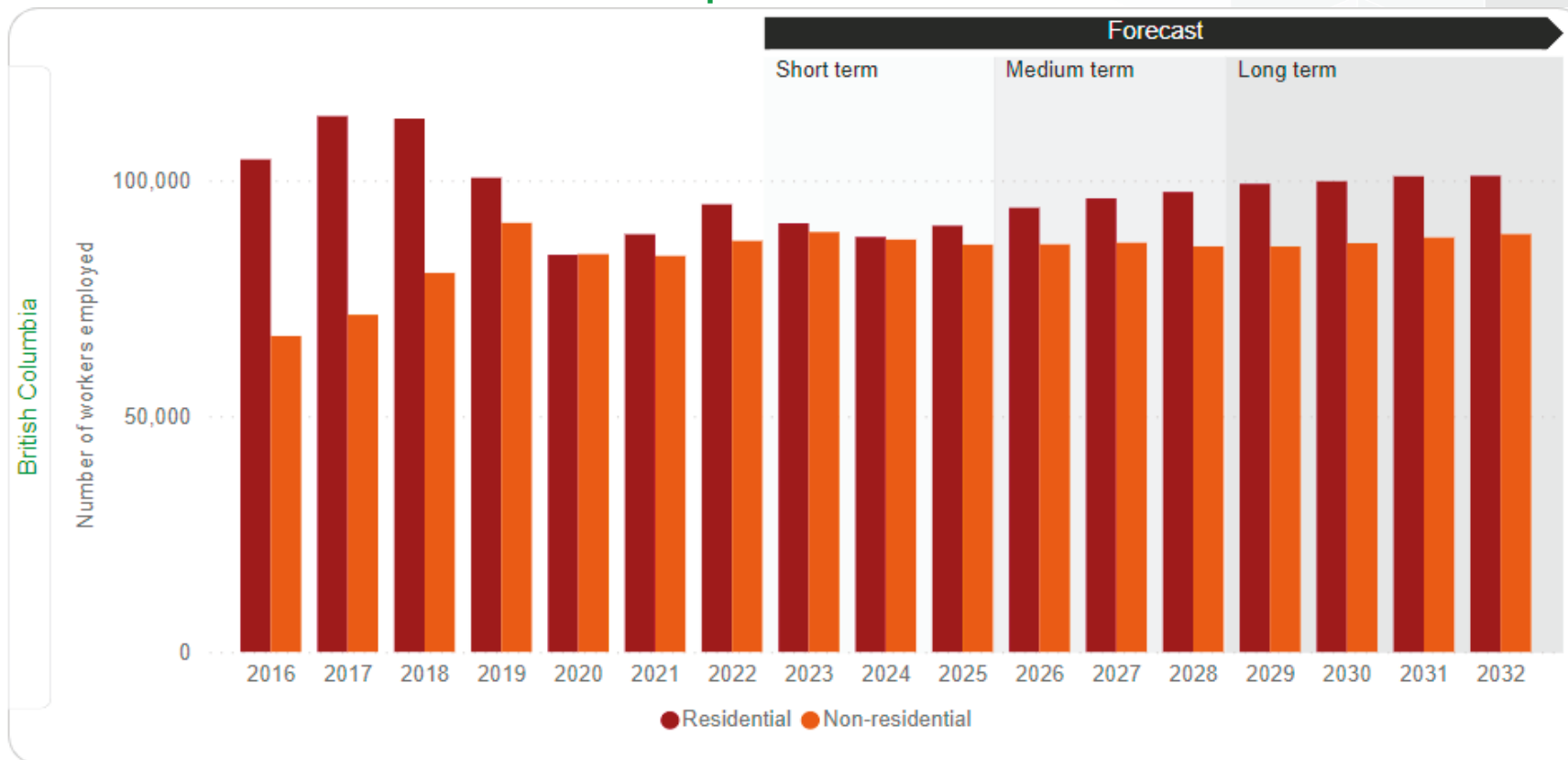
Residential

- Following a brief decline in 2023 and 2024 due to the impact of higher interest rates on investment, residential employment is expected to rise thereafter in response to rising demand for housing within the province.
- Renovation demands are not expected to be significantly impacted by rising interest rates, thereby leading to year-over-year increases in renovation-related employment throughout the forecast period.

Non-residential

- Employment in the non-residential sector is expected to peak in 2023, followed by modest declines thereafter to 2029.
- Engineering-related employment declines to 2025, followed by a slight increase out to 2032.
- ICI (industrial, commercial, institutional) employment – the largest segment of non-residential employment – is expected to peak in 2024 before moderating to 2029. ICI employment will be mostly governed by provincial government investments in health care and educational services.
- Maintenance-related employment – the smallest of the three non-residential employment segments – is expected to rise continuously throughout the forecast period.

Total direct trades and occupations



Construction and Maintenance Looking Forward, Employment Change

Source: Statistics Canada, BuildForce Canada (2023-2032)

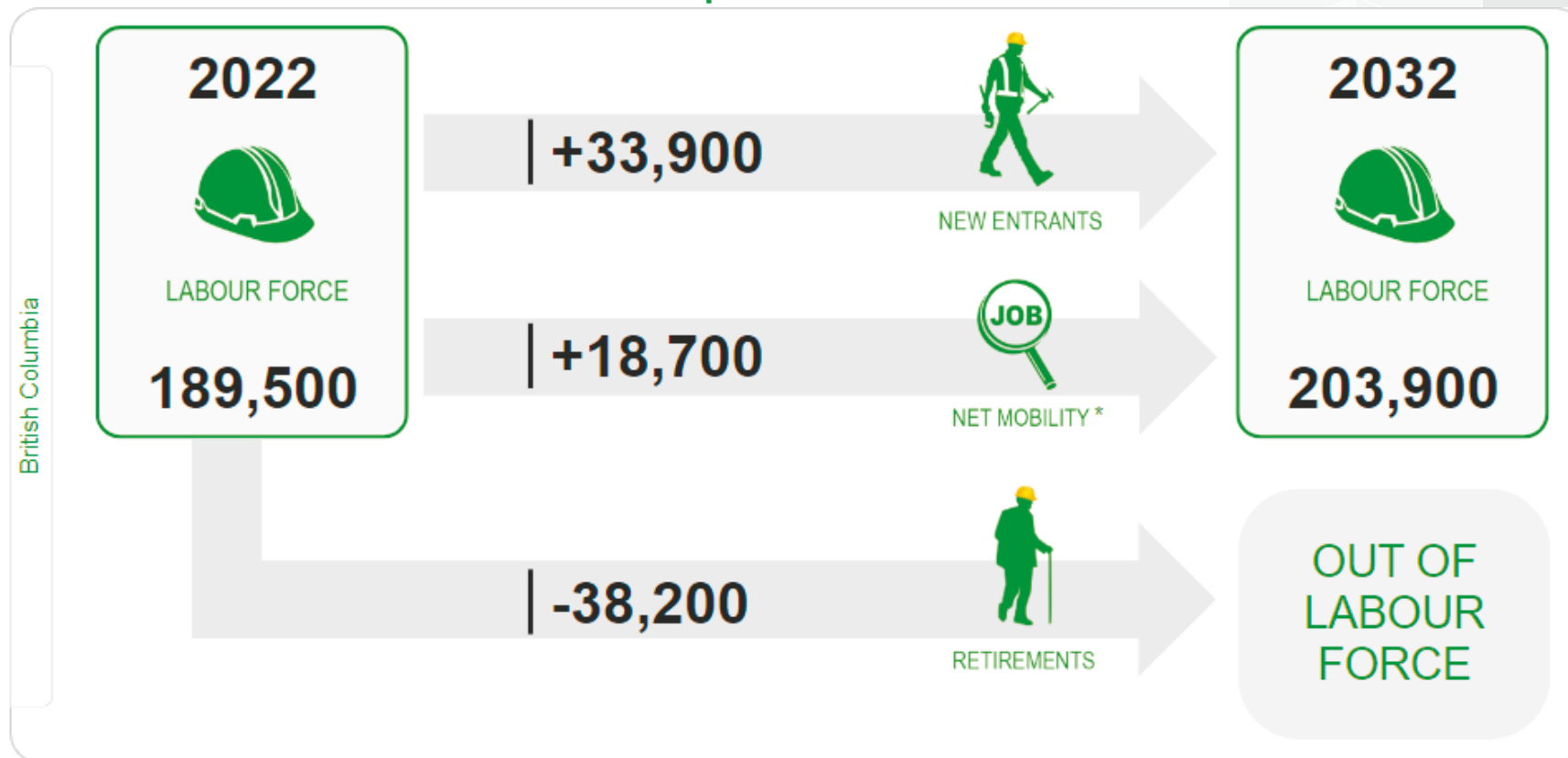
Construction industry overview: Labour force



2023–2032

- Rising demands will require the provincial construction labour force to increase by 14,400 workers.
- The retirement of approximately 38,200 workers during the forecast period will increase the overall hiring requirements for the industry to 52,600.
- Based on historical recruitment levels, the industry is expected to add 33,900 workers during the forecast period.
- Unless recruitment increases, the sector may need to add as many as 18,700 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



Construction and Maintenance Looking Forward, Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.



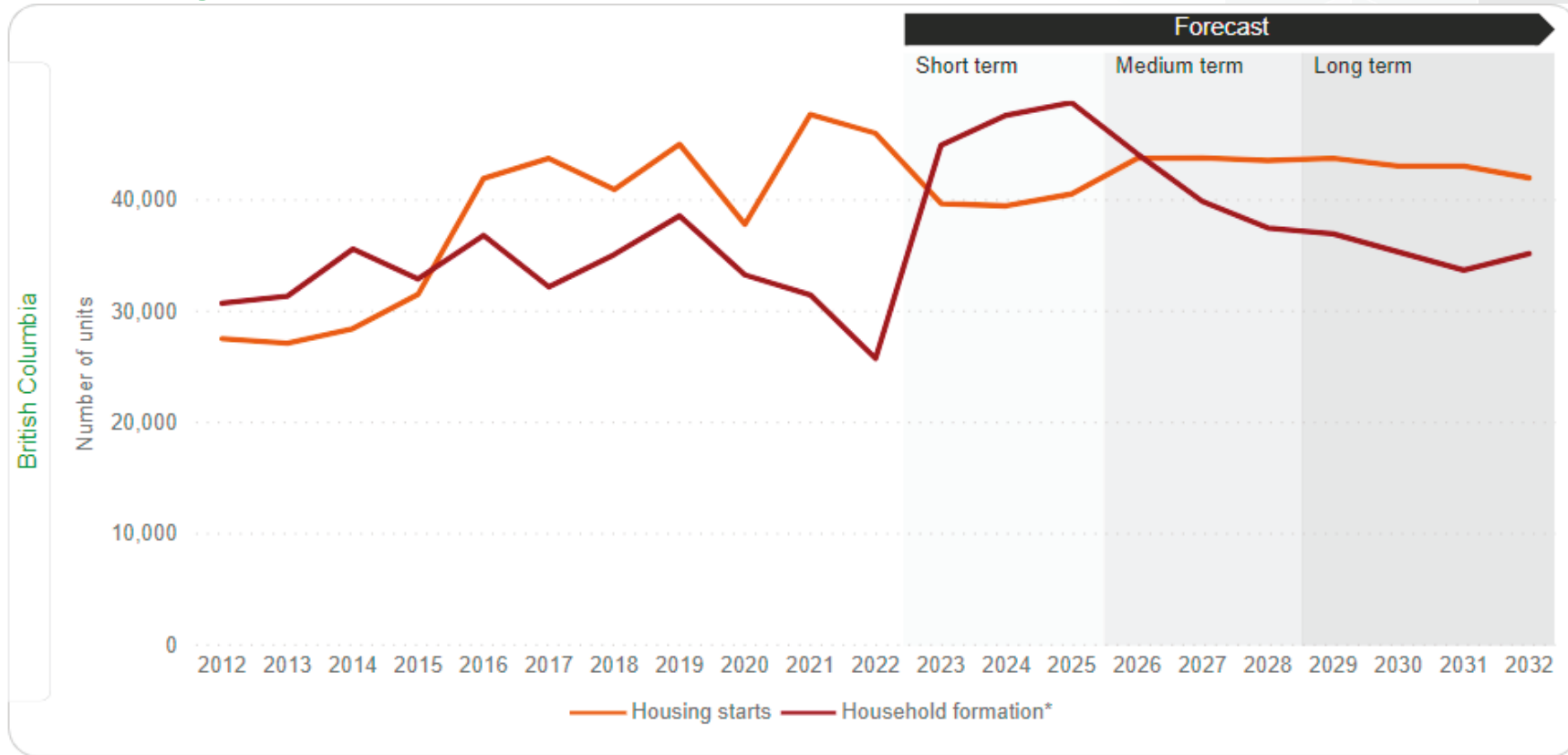
Residential construction

- Housing starts and household formations
- Investment
- Housing starts by structure type
- Employment
- Labour market rankings



- International migration fell sharply from 2020 to 2021.
- In 2022, migration levels surged as international students returned and many world-be immigrants were fast-tracked for permanent residency.
- Consequently, rental vacancy rates remained under pressure in 2022, with a 1.3% rate achieved in October of 2022.
- Over the short term, household formations* are expected to remain above housing starts, driven by increased immigration to the province. By 2026, formations begin to decline and will remain below housing starts for the remainder of the forecast period.

Housing starts and household formations



[Construction and Maintenance Looking Forward, Residential Construction](#)

Source: CMHC, BuildForce Canada (2023-2032)

* **Household formation** refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.

Residential construction



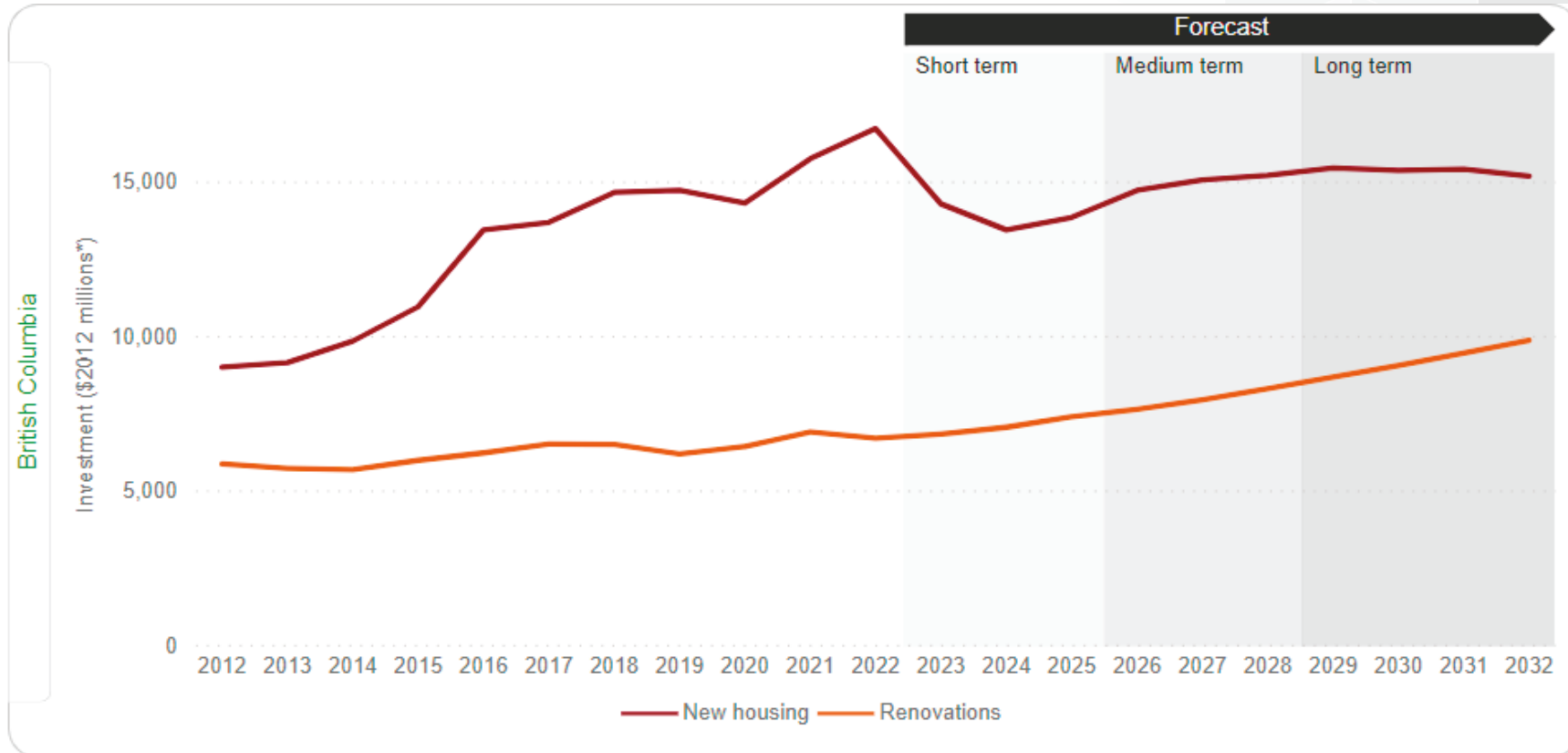
New housing

- New-housing investment will come off the peak reached in 2022, as interest-rate increases curb demand in the short term.
- As consumers adjust their expectations to higher interest rates, and population growth increases pressure for new homes, an upward cycle is expected commencing in 2024 that will extend to 2029 before moderating thereafter to 2032.

Renovations

- The aging of the housing stock and higher levels of migration to the province have been contributing to yearly increases in renovation investment levels.
- Strong demand for homes in more mature markets will drive renovation investment, as investment in older homes typically follows their purchase as the new owners customize the home to their preferences.
- Despite the 2022 downturn in real estate transactions, the mature markets in the Lower Mainland and Victoria are expected to produce year-over-year increases in overall renovation investment levels.

Investment



 [Construction and Maintenance Looking Forward, Residential Investment](#)

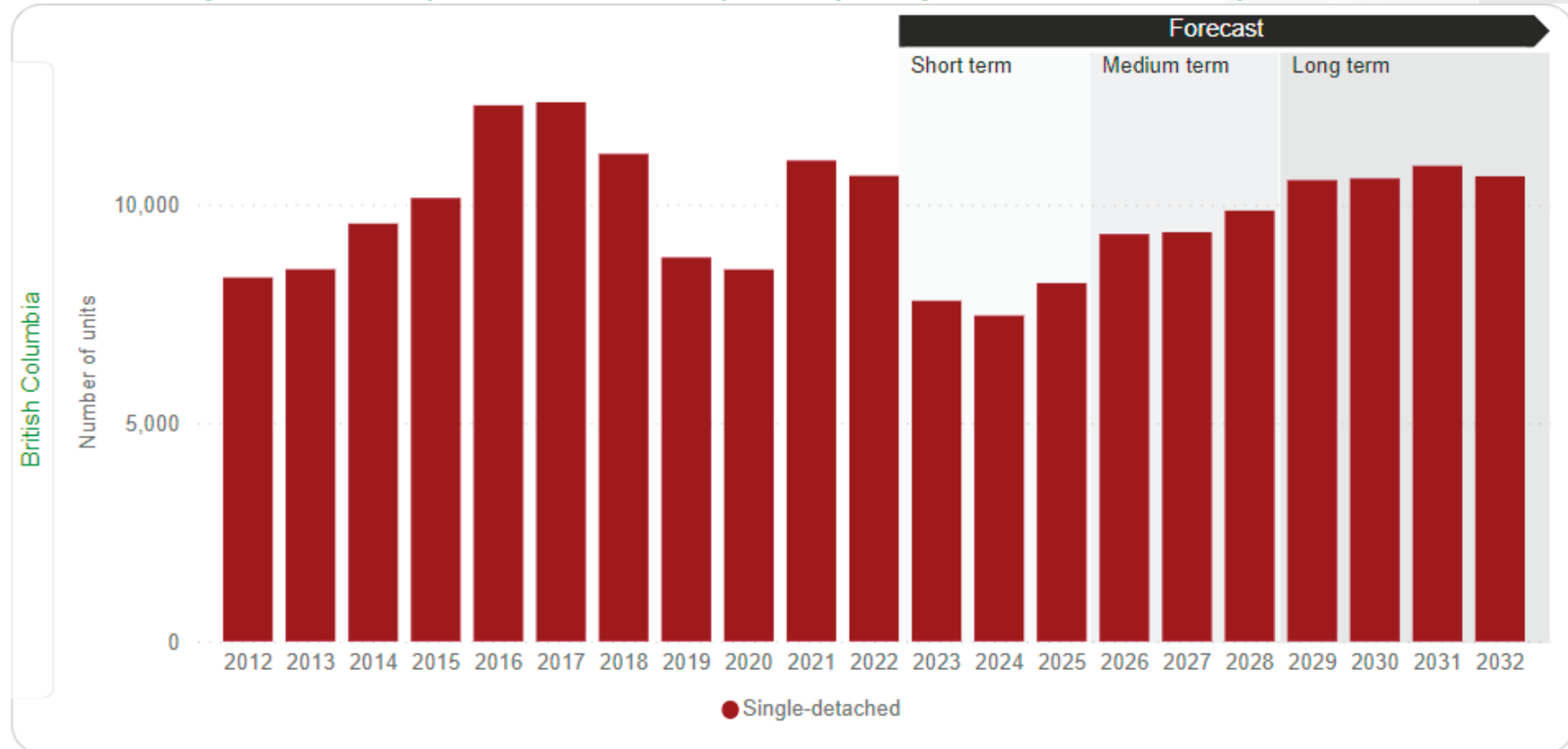
Source: Statistics Canada, BuildForce Canada (2023-2032)

* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.



- Single-detached* unit construction was elevated in 2021–2022 but commenced declining in late 2022.
- As these are more relatively expensive units, a moderate decline in demand is expected due to rising interest rates.
- International migrants tend to rent upon arrival in Canada, before purchasing single-detached homes.
- Affordability, particularly in the Lower Mainland, is also expected to depress the construction of singles in the short term.
- As interest rates are relaxed and economic growth accelerates in 2024, demand for singles should increase to 2031 before declining thereafter slightly in the final year of the forecast period.
- The longer-run demand forecast is supported by trends in the population age structure. The general population is aging, and a good share of international migrants are expected to be over 35 years of age. Both domestic and international migrants to the province are expected, due to their age, to have higher incomes and more wealth to support the demand for singles.
- With those trends in effect, single-detached formations will continue to experience upward pressure from the age shift, despite population growth slowing by mid-decade.

Housing starts by structure type (single-detached)



Construction and Maintenance Looking Forward, Single Housing Starts

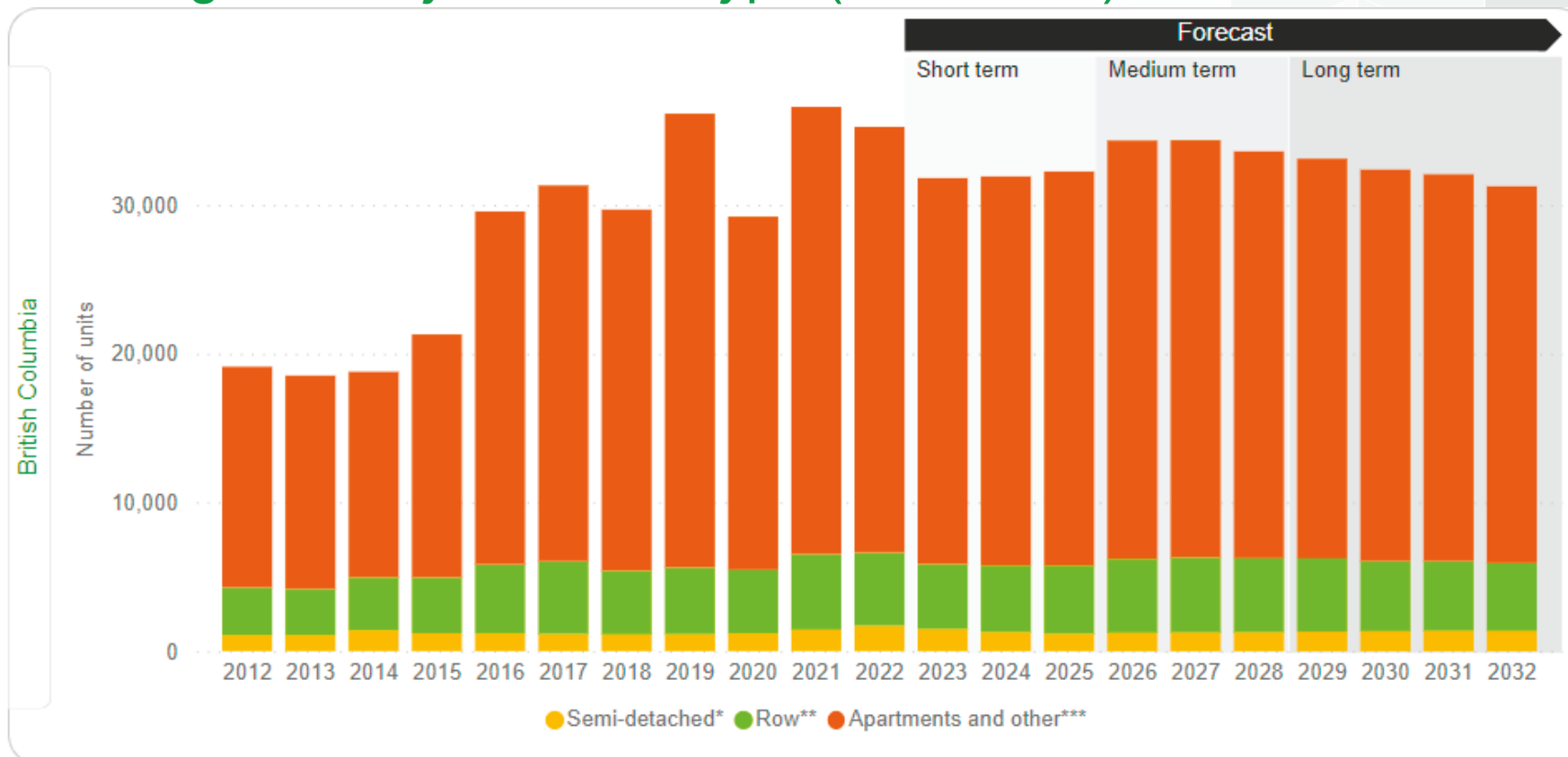
Source: CMHC, BuildForce Canada (2023-2032)

* **Single-detached (single)** refers to a building containing only one dwelling unit that is completely separated on all sides from any other dwelling or structure.



- Multi-unit construction was well elevated in 2021 but weakened slightly in 2022.
- Apartment*** units dominate multi-unit construction types, which are expected to experience a slowdown in the short term.
- Row** housing supplies increased in 2022, but given their portion of multi-unit starts, the impact is somewhat negligible. Demand for row housing, due to its relative affordability, is expected to rise to a peak in 2027 before moderating slightly in the latter half of the forecast period.
- With the current rental vacancy rates low, and migration levels to the province rising, the level of multi-unit construction is expected to see very little slowdown throughout most of the decade.
- Since international migrants tend to rent before buying, their increase as a share of population growth will help to maintain demand for multi-unit types over the decade.
- Multi-unit construction will account for about 60% of total housing starts each year through most of the forecast period.

Housing starts by structure type (multi-units)



Construction and Maintenance Looking Forward, Multiples Housing Starts

Source: CMHC, BuildForce Canada (2023-2032)

* **Semi-detached** and **semi** refer to one of two dwellings located side-by-side in a building, adjoining no other structure, and separated by a common or party wall extending from ground to roof.

** **Row** refers to a one-family dwelling unit in a row of three or more attached dwellings separated by a common or party wall extending from ground to roof.

*** **Apartments and other** includes all dwellings other than those described above, including structures commonly known as stacked townhouses, duplexes, triplexes, double duplexes, and row duplexes.

Residential construction: Employment



New housing

- New-housing-related employment is expected to moderate in 2023 and 2024 from elevated 2022 levels, before rising modestly thereafter and stabilizing near 56,000 units for the remainder of the forecast period.

Renovations

- Renovation-related employment is expected to continue to rise throughout the forecast period.

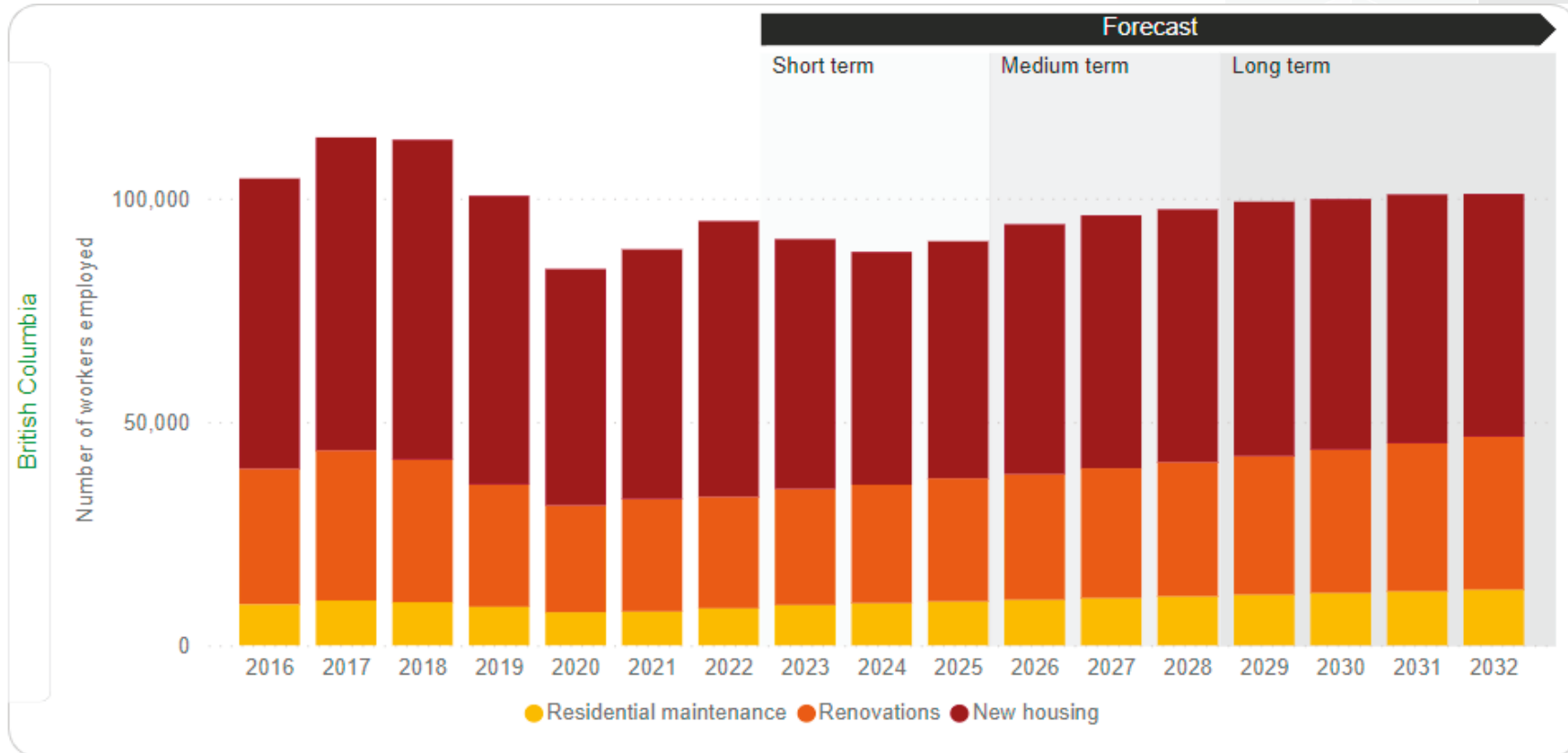
Maintenance

- Similar to renovations, maintenance-related employment is also expected to rise throughout the forecast period.

Total

- At the end of the decade:
 - New housing is down 7,500 workers (-12.7%) from 2022.
 - Renovation is up 9,300 workers (+37.4%).
 - Maintenance is up 4,200 workers (+50.5%).
- Overall, residential employment is expected to increase by 6,000 workers (+6.4%) over the forecast period from 2022 levels.

Total direct trades and occupations



Construction and Maintenance Looking Forward, Residential Employment

Source: BuildForce Canada (2023-2032)

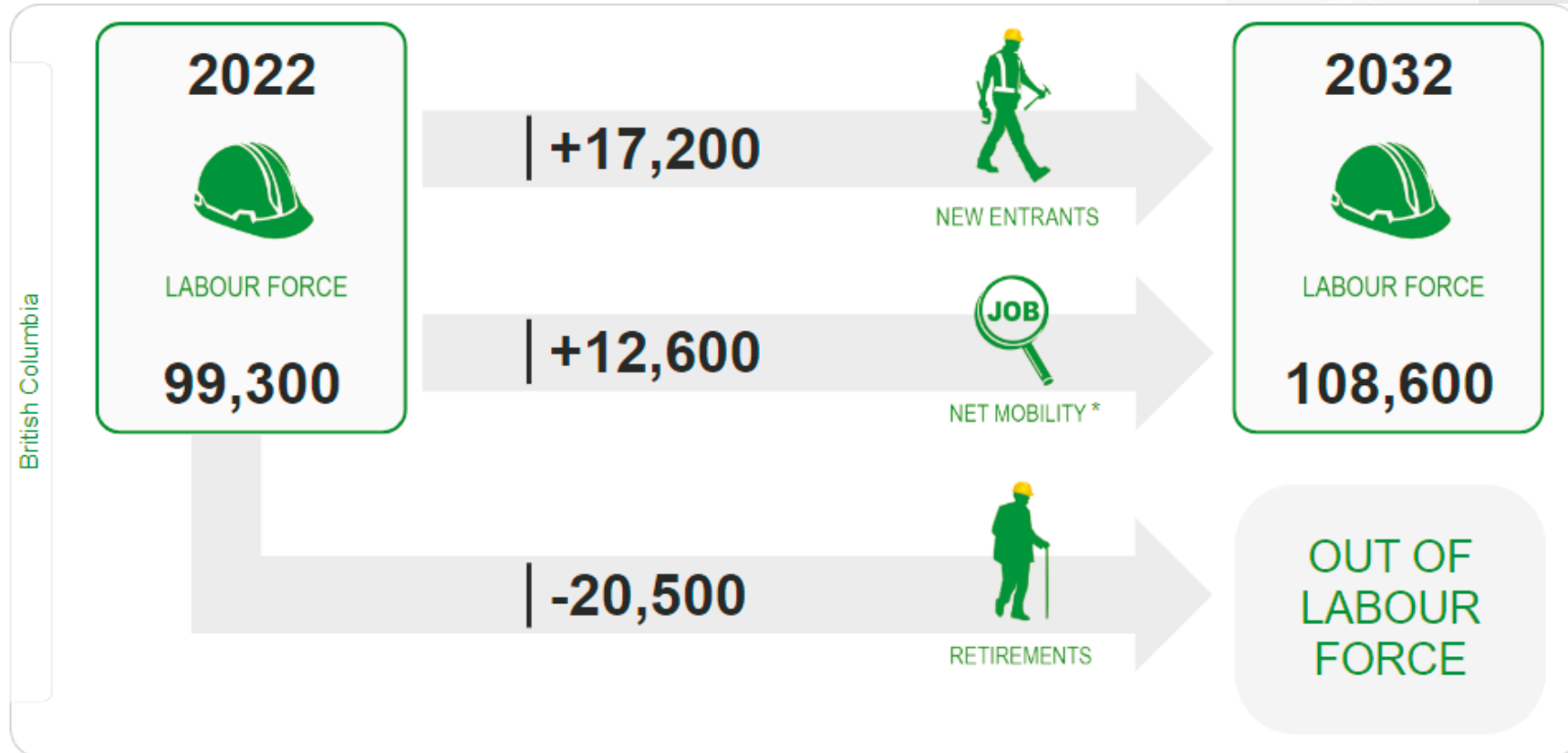
Residential construction: Labour force



2023–2032

- Rising demands will require the provincial residential construction labour force to increase by 9,300 workers.
- The retirement of approximately 20,500 workers during the forecast period will increase the overall hiring requirements for the industry to 29,800.
- Based on historical recruitment levels, the industry is expected to add 17,200 workers during the forecast period.
- Unless recruitment increases, the sector may need to add as many as 12,600 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



[Construction and Maintenance Looking Forward, Residential Labour Force Change](#)

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.



- While BuildForce tracks market conditions for 34 construction trades and occupations, labour market rankings are limited to **27 residential trades and occupations**; rankings for smaller trades and occupations (<100 workers) are suppressed due to statistical reliability.
- The market rank indicator runs from “1” (excess supply; risk of losing workers from the industry) to “5” (severe challenges recruiting construction workers in the local market).
- A rank of “3” refers to balanced market conditions, where qualified workers are generally available. There could be tighter conditions during peak seasons, however, due to coinciding major projects and/or maintenance work, which could limit the availability of workers.

Labour market rankings

1

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.

2

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.

3

The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.

4

Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.

5

Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

Residential construction



- The surge in housing starts in 2022 created exceptionally tight labour markets throughout the year.
- While labour markets are expected to moderate slightly in 2023, they then return to mostly balanced conditions by 2024.
- Thereafter, labour markets are expected to remain mostly balanced, based on currently known demands.

Selected trades and occupations

British Columbia

Trades and occupations - Residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bricklayers	4	3	3	3	3	3	3	3	3	3	3
Carpenters	4	3	2	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	5	3	2	3	3	3	3	3	3	3	3
Construction managers	5	4	3	3	3	3	3	3	2	3	2
Contractors and supervisors	4	3	3	3	3	3	3	3	3	3	3
Crane operators	5	4	3	3	4	3	3	3	3	3	3
Electricians	4	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	5	4	3	3	3	3	3	3	3	3	3
Floor covering installers	5	4	3	3	3	3	3	3	3	3	3
Gas fitters	5	3	2	3	4	3	3	3	3	3	3
Glaziers	4	4	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	3	3	3	3	3	3	3	3	3

[Construction and Maintenance Looking Forward, Residential Rankings](#)

Continued on next slide

Residential construction



- The surge in housing starts in 2022 created exceptionally tight labour markets throughout the year.
- While labour markets are expected to moderate slightly in 2023, they then return to mostly balanced conditions by 2024.
- Thereafter, labour markets are expected to remain mostly balanced, based on currently known demands.

Selected trades and occupations

British Columbia

Trades and occupations - Residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Home building and renovation managers	5	4	3	3	3	3	3	3	3	3	3
Insulators	4	3	2	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	2	3	3	3	3	2	2	3	3
Painters and decorators (except interior decorators)	4	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	5	3	3	3	3	3	3	3	3	3	3
Plumbers	4	4	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	5	4	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	5	3	2	3	3	3	3	3	3	3	3
Tilesetters	5	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	3	3	3	3	3
Truck drivers	4	3	3	3	4	3	3	3	3	3	3
Welders and related machine operators	4	3	2	3	3	3	3	3	3	3	3

[Construction and Maintenance Looking Forward, Residential Rankings](#)



Non-residential construction

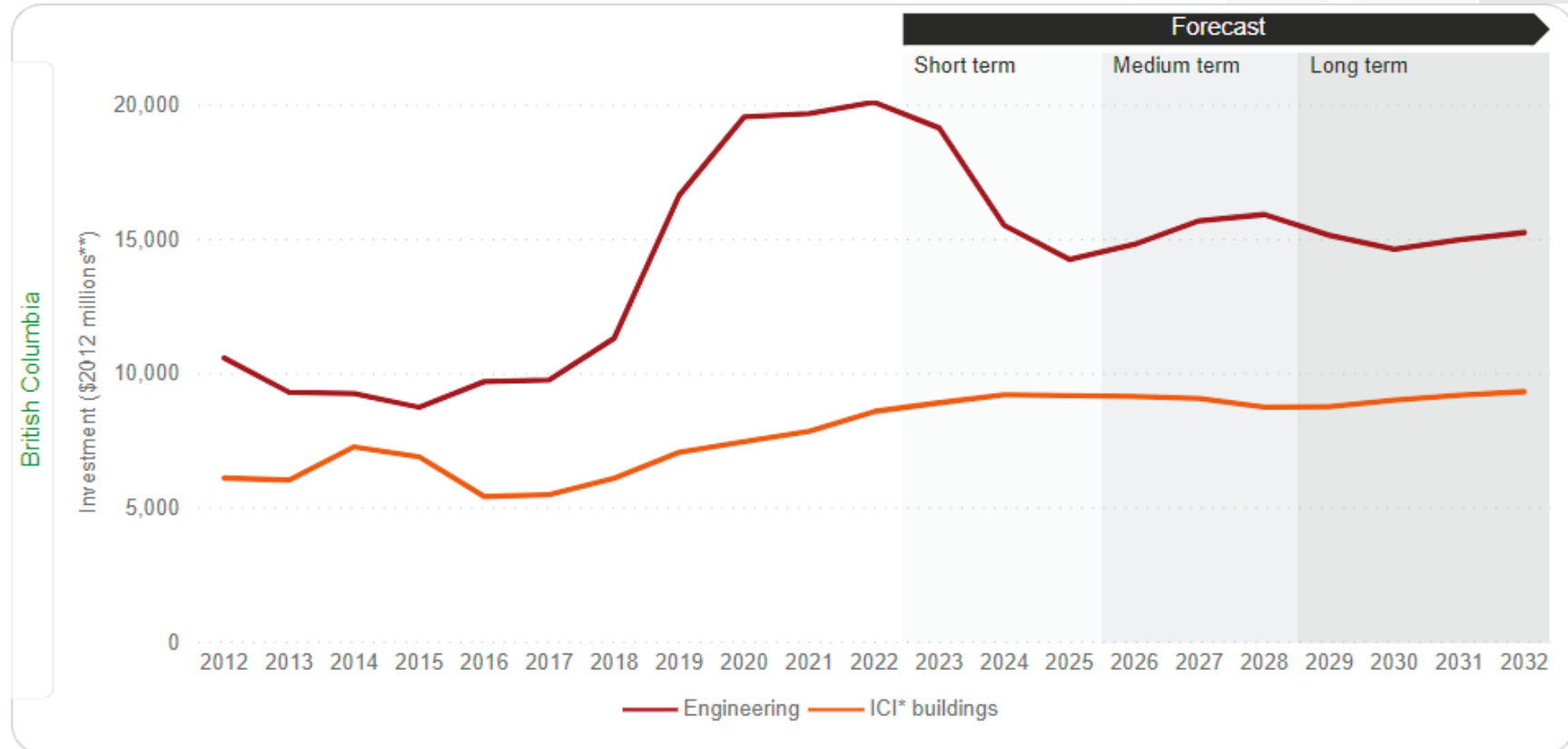
- Investment
- Employment
- Labour market rankings

Non-residential construction



- Engineering investment is expected to experience a downward cycle in the short term as key pipeline, wastewater, and light rail projects wind down.
- The completion of the Site C hydro development contributes to near-term declines in engineering investment to 2025.
- Investment cycles back upward between 2026 and 2028 with the start of work at the Iona Island Treatment plant, the Highway 99 Tunnel Program, and an additional phase of work at LNG Canada in Kitimat.
- Investments in health care and hospitals are expected to increase overall ICI* investment in the short term and maintain levels elevated to 2027. Following a brief pause, investment levels rise between 2029 and 2032.

Investment



Construction and Maintenance Looking Forward, Non-residential Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: Non-residential construction excludes the value of machinery and equipment.

* industrial, commercial, institutional

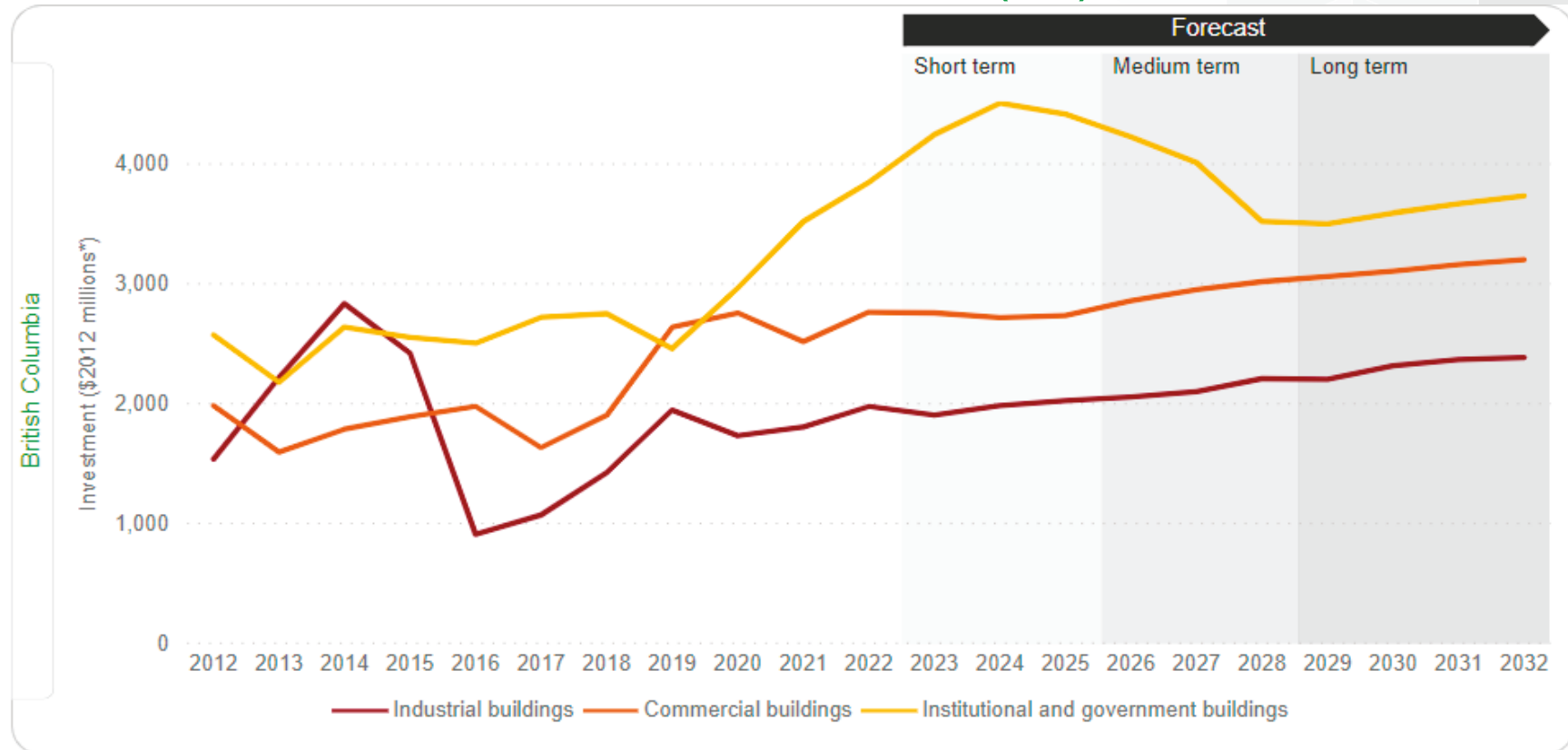
** \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Non-residential construction: Investment



- **Industrial-building** investment has been trending upward with a pickup in manufacturing and warehousing capacity in the province. A brief pause is expected in 2023 with modest increases thereafter out to 2032.
- **Commercial-building** investment will see some downward pressure to 2025. Commercial office space is poised for a mild recovery. Overall commercial investment, though, should slow in the short term. The demand for commercial services is expected to grow in line with income and population growth, leading to a rise in investment levels commencing mid-decade.
- **Institutional and government** investment will continue to rise through to a peak in 2024. As many of the hospital projects currently included in the outlook approach completion, a decline through to 2027 is expected. A modest recovery is then expected in the latter years of the forecast period.

Industrial, commercial, and institutional (ICI)



Construction and Maintenance Looking Forward, Buildings Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: Non-residential construction excludes the value of machinery and equipment.

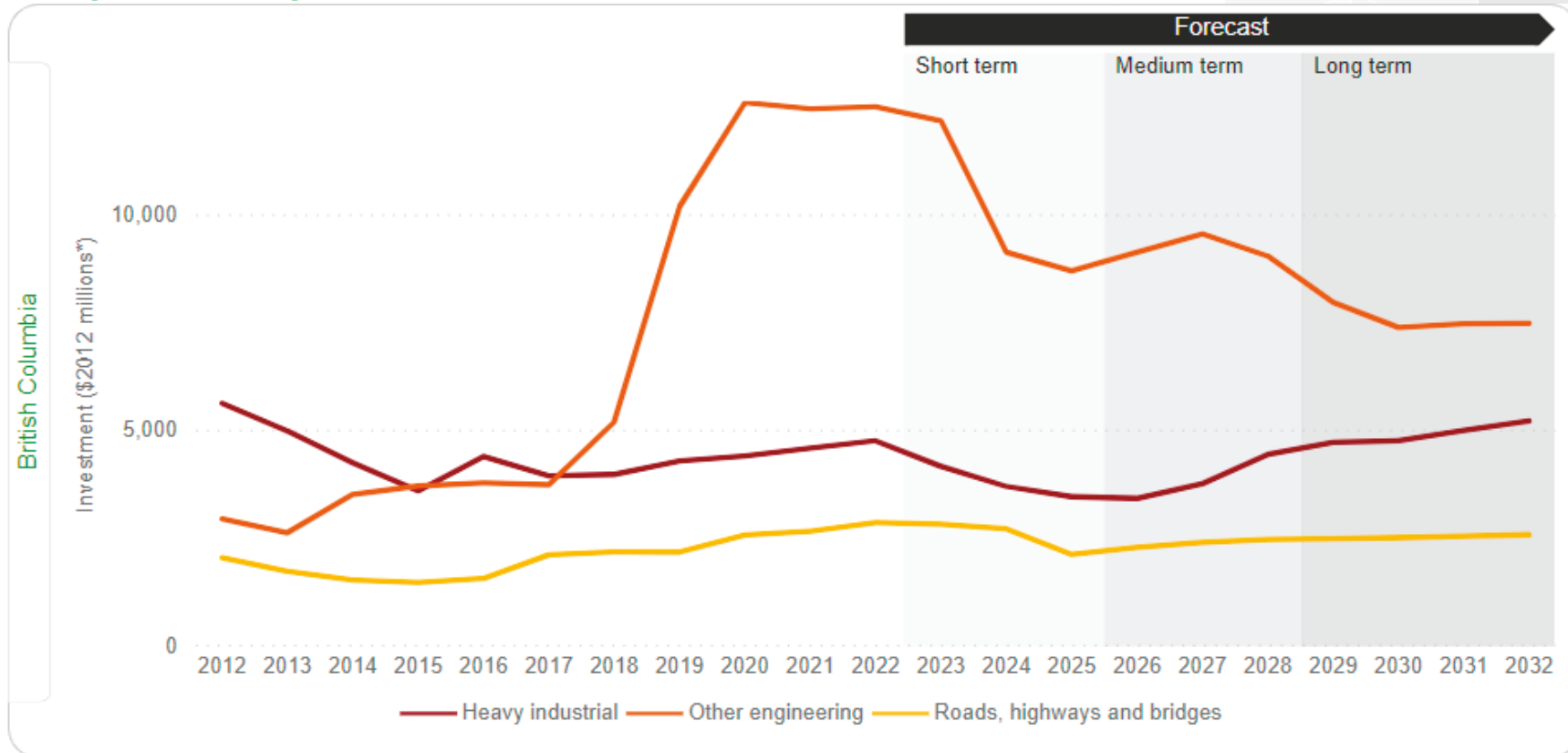
* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Non-residential construction: Investment



- **Heavy-industrial engineering** has been elevated, and peaked in 2022.
- As work on two Costal GasLink and Trans Mountain projects approach completion in 2023, investment levels decline through to 2026.
- The start of several major wastewater treatment facilities then leads to renewed growth thereafter for the remainder of the forecast period.
- **Other-engineering** investment declines slightly in 2023 before further decreases out to 2025 as several major projects are completed. The start of public transit and several wastewater facilities then stack on top of each other producing a rise in investment levels out to 2027. As these projects are completed, investment levels decline again out to 2030, before staying at those levels for the remaining two years of the forecast. The anticipated start of the George Massey Tunnel replacement adds to investment in the latter part of the forecast period.
- **Roads, highways, and bridges** investment is expected to rise over the next few years due to efforts to rebuild the transportation infrastructure damaged by the 2021 storms that impacted the southern half of the province. As the work approaches completion in 2024, investment levels decline in 2025. Population increases and the need for further transportation infrastructure then keep investment levels rising modestly out to 2032.

Engineering



Construction and Maintenance Looking Forward, Engineering Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: **Engineering construction** excludes the value of machinery and equipment. **Heavy-industrial engineering** includes oil and gas, mining, electric power, wastewater, gas distribution, etc. **Other engineering** includes pipelines, transit systems, tunnels, and other civil engineering.

* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Non-residential construction: Employment



Engineering

- Employment has been elevated since 2019 and is expected to remain robust through to 2024. As several large projects approach completion, overall engineering employment declines modestly. Thereafter, employment remains relatively constant throughout the forecast period.

ICI*

- Employment continues to rise in the short term due to public investments in health care and hospitals. As these projects approach completion in the medium term, employment declines marginally to 2027.

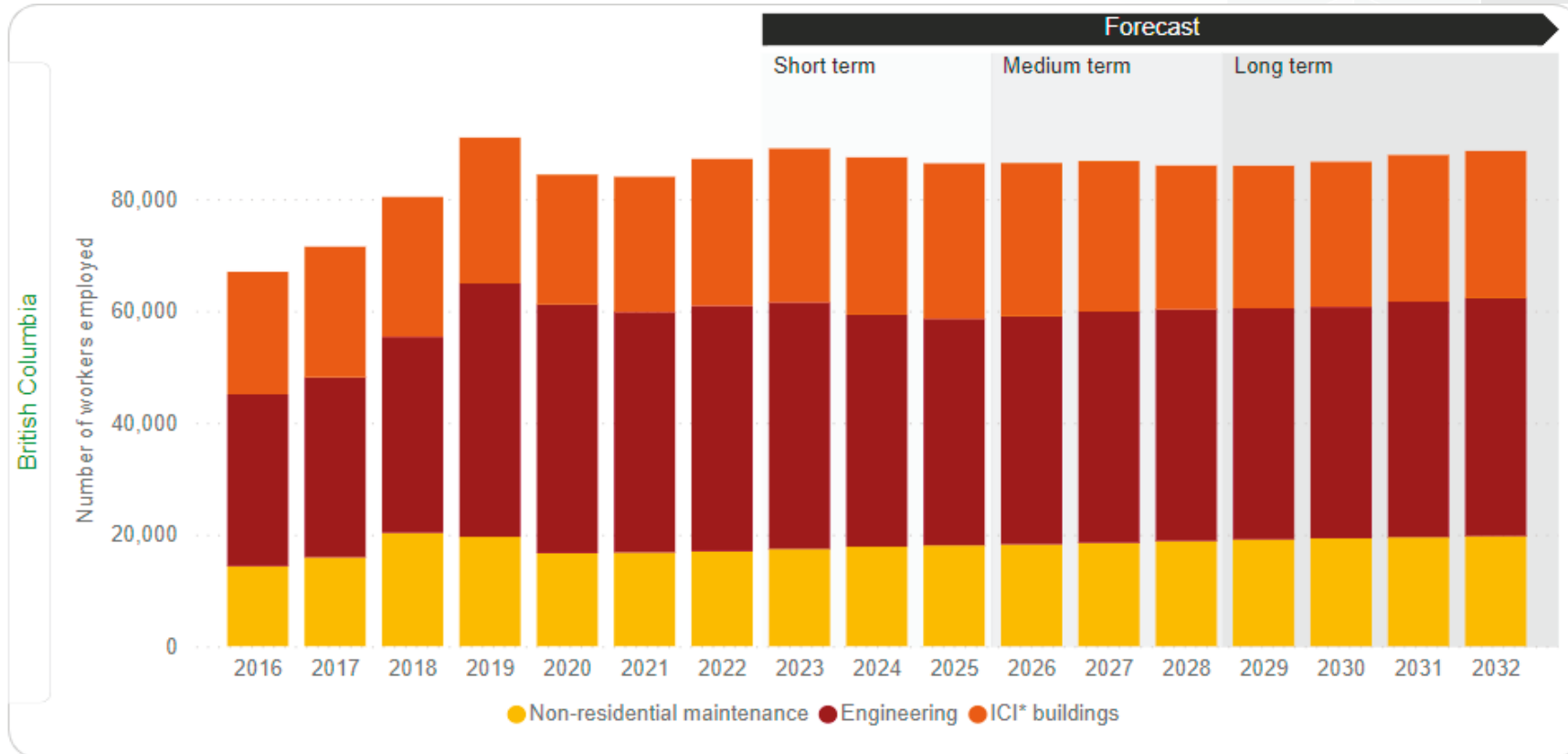
Maintenance

- Maintenance-related employment is expected to rise throughout the forecast period.

Total

- Over the forecast period, non-residential employment should rise by 1,400 workers (+1.6%).
 - ICI buildings is unchanged (0%).
 - Engineering declines by 1,400 workers (-3.1%).
 - Maintenance increases by 2,700 workers (+16.1%).

Total direct trades and occupations



Construction and Maintenance Looking Forward, Non-residential Employment

Source: BuildForce Canada (2023-2032)

* industrial, commercial and institutional

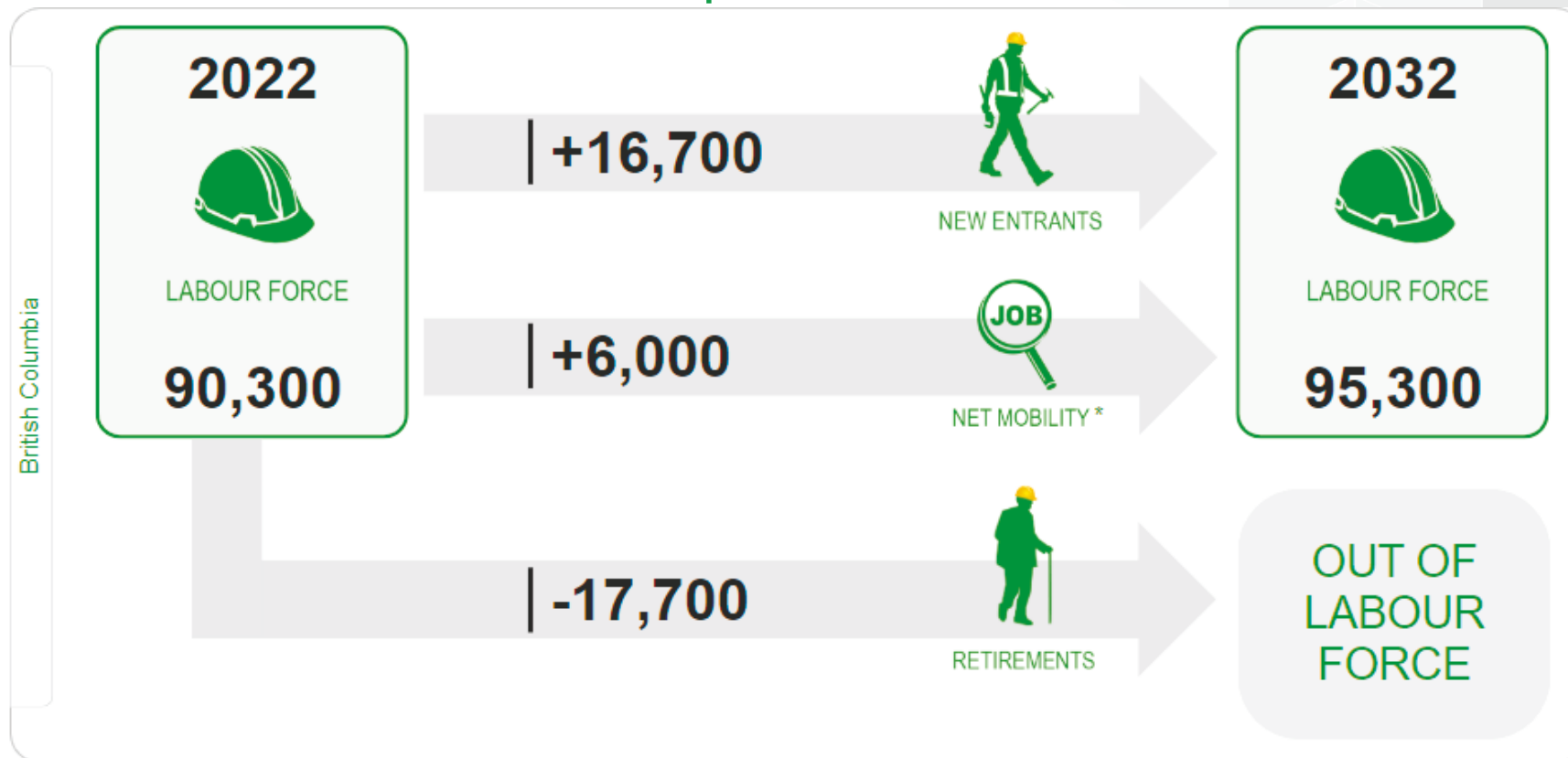
Non-residential construction: Labour force



2023–2032

- Rising demands will require the provincial non-residential labour force to increase by 5,000 workers.
- The retirement of approximately 17,700 workers during the forecast period will increase the overall hiring requirements for the industry to 22,700.
- Based on historical recruitment levels, the industry is expected to add 16,700 workers during the forecast period.
- Unless recruitment increases, the sector may need to add as many as 6,000 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



[Construction and Maintenance Looking Forward, Non-residential Labour Force Change](#)

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.



- While BuildForce tracks market conditions for 34 construction trades and occupations, labour market rankings are limited to **32 non-residential trades and occupations**; rankings for smaller trades and occupations (<100 workers) are suppressed due to statistical reliability
- The market rank indicator runs from “1” (excess supply; risk of losing workers from the industry) to “5” (severe challenges recruiting construction workers in the local market).
- A rank of “3” refers to balanced market conditions, where qualified workers are generally available. There could be tighter conditions during peak seasons, however, due to coinciding major projects and/or maintenance work, which could limit the availability of workers.

Labour market rankings

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Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.

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Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.

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4

Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.

5

Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

Non-residential construction



- Employment demand was exceptionally strong in 2022, placing significant pressure on construction labour markets in the province.
- Over the next few years, labour markets are expected to remain exceptionally tight, but improve through to 2024.
- As several projects are completed, labour markets return to mostly balanced conditions by 2025 for most trades and occupations.

Selected trades and occupations

British Columbia

Trades and occupations - Non-residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Boilermakers	4	4	3	3	3	3	3	3	3	3	3
Bricklayers	5	4	3	3	3	3	3	3	3	3	3
Carpenters	4	4	3	2	3	3	3	3	3	3	3
Concrete finishers	4	4	4	3	2	3	3	3	3	3	3
Construction estimators	4	4	3	3	3	3	3	3	3	3	3
Construction managers	4	4	4	3	3	3	2	2	3	3	3
Construction millwrights and industrial mechanics	4	3	3	3	3	3	3	3	3	3	3
Contractors and supervisors	4	4	3	3	3	3	3	3	3	3	3
Crane operators	4	5	3	2	3	3	3	3	3	3	3
Drillers and blasters	4	3	3	3	3	3	3	3	3	3	3
Electrical power line and cable workers	4	4	3	3	3	3	3	3	3	3	3
Electricians	5	4	3	2	2	3	3	3	3	3	3
Elevator constructors and mechanics	5	5	4	3	3	3	2	3	3	3	3
Floor covering installers	5	5	4	3	3	3	2	3	3	3	3
Gas fitters	5	4	4	3	3	3	3	3	3	3	3
Glaziers	4	4	4	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	3	3	3	3	3	3	3	3	3

Construction and Maintenance Looking Forward, Non-residential Rankings

Continued on next slide

Non-residential construction



- Employment demand was exceptionally strong in 2022, placing significant pressure on construction labour markets in the province.
- Over the next few years, labour markets are expected to remain exceptionally tight, but improve through to 2024.
- As several projects are completed, labour markets return to mostly balanced conditions by 2025 for most trades and occupations.

Selected trades and occupations

British Columbia

Trades and occupations - Non-residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Heavy-duty equipment mechanics	4	4	3	3	3	3	3	3	3	3	3
Insulators	5	4	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	3	3	3	2	3	3	3	3	3	3
Painters and decorators (except interior decorators)	4	4	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	5	4	4	3	3	3	2	3	3	3	3
Plumbers	5	4	4	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	4	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	4	3	3	3	3	2	3	3	3	3
Roofers and shinglers	5	4	3	3	3	3	3	3	3	3	3
Sheet metal workers	4	4	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	4	4	3	2	3	3	3	2	2	3	3
Tilesetters	4	4	4	3	3	3	2	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	3	3	3	3	3
Truck drivers	4	3	3	3	3	3	3	3	3	3	3
Welders and related machine operators	4	4	3	3	3	3	3	3	3	3	3

Construction and Maintenance Looking Forward, Non-residential Rankings



Lower Mainland region

The Lower Mainland region is defined by the economic regions of Greater Vancouver, Fraser Valley, Sunshine Coast, Squamish, and Lillooet.



Construction industry



Residential sector

Includes single dwellings, semi-detached, townhouses, row houses, and apartments and condominiums

- New-housing investment peaked in 2022, driven by low interest rates in the early part of the year and strong demand for housing.
- As interest rates increased throughout the year, demand for real estate in the region softened, as did starts toward the latter months of the year.
- Demand was strong for single units, but declined slightly from 2021 levels for multi-unit types.
- Semi-detached units were up slightly over 2021, while demand for row units and apartment/condominiums was down.



Non-residential sector

Includes industrial, commercial, and institutional buildings; roads, highways, and bridges; and other engineered civil projects

- Investment in non-residential construction increased in 2022.
- Heavy-industrial engineering was unchanged throughout the year, while investment in other engineering increased.
- Roads, highways, and bridges investment was also up modestly from 2021 levels.
- All ICI* building types experienced an increase in 2022, with institutional investments rising the most on the strength of strong investments in hospital and health care infrastructure.

* industrial, commercial, institutional



Construction industry



Residential sector

Includes single dwellings, semi-detached, townhouses, row houses, and apartments and condominiums

- The rise in interest rates experienced in 2022 will continue to moderate housing starts activity in 2023.
- Starts are expected to decline year over year for the next two years.
- As consumers adjust to higher borrowing costs, demand is expected to recover, producing a slow but steady rise in housing starts commencing in 2025.
- Higher levels of immigration and low vacancy rates in the region should help to keep starts on a year-over-year upward trek throughout the remainder of the forecast period.



Non-residential sector

Includes industrial, commercial, and institutional buildings; roads, highways, and bridges; and other engineered civil projects

- Heavy-industrial engineering is expected to rebound in 2023, but then moderate to 2025 as several large regional projects are completed.
- Other engineering is expected to rise year over year through to 2028 on the strength of investments in public transit.
- Roads, highways, and bridges investment declines to 2025 but then rises gradually over the remainder of the decade.
- Institutional-building investment rises to 2025 on the strength of investments in hospitals and health care, with a gradual decline thereafter as projects are completed.
- Commercial and industrial buildings are expected to see modest but year-over-year gains throughout most of the forecast period.

Lower Mainland construction industry overview



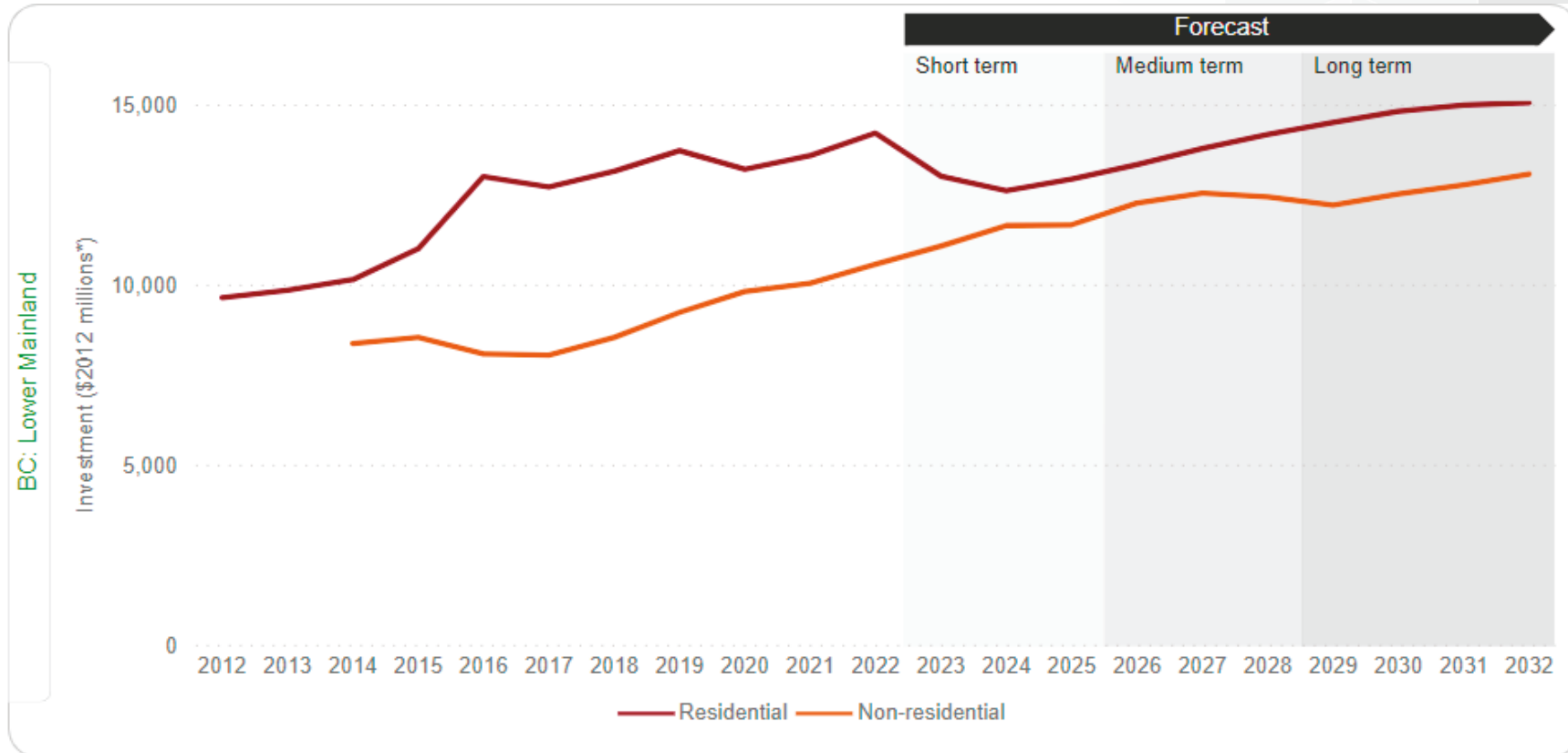
Residential

- A surge in housing starts helped to bring residential-sector investment to a peak in 2022. Rising interest rates will bring housing starts, and therefore investment levels, lower into 2023 and 2024.
- Investment is expected to recover after 2025 as the market adjusts to higher borrowing costs, and as the industry adjusts its output to accommodate population growth and low vacancy rates.
- Residential investment is expected to grow by as much as 6% over 2022 levels by the end of the forecast period.

Non-residential

- Non-residential investment has been on a steady upward path since 2017 and, with few exceptions, should maintain that trend until at least 2029.
- The sector is supported by spending across a variety of sectors, including engineering; roads, highways, and bridges; and institutional and government.
- Investment increases by 23% over the forecast period.

Investment



BC: Lower Mainland
Investment (\$2012 millions*)

Construction and Maintenance Looking Forward, Construction Investment

Source: Statistics Canada, BuildForce Canada (2023–2032)

* \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Lower Mainland construction industry overview: Employment



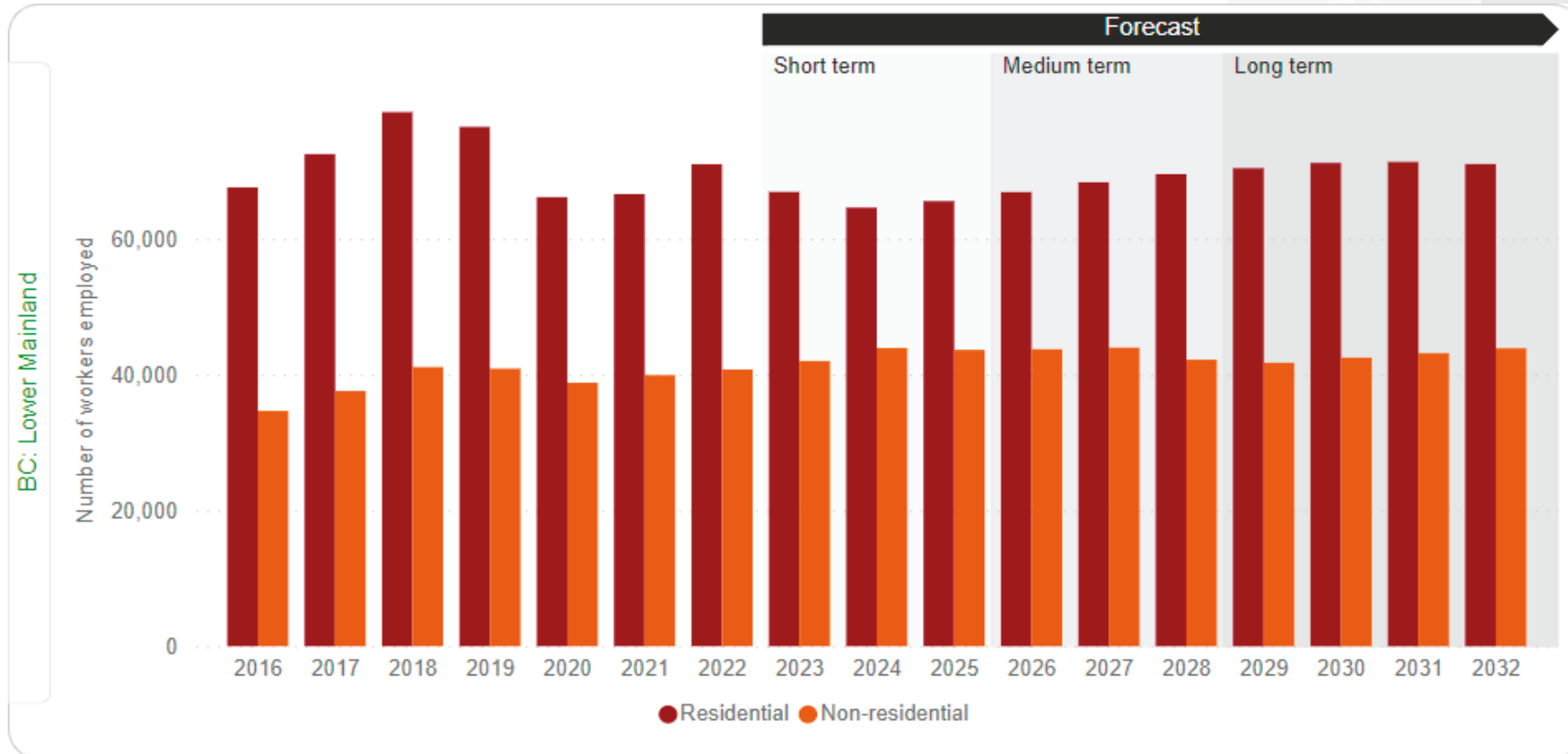
Residential

- A short-term decline in employment is expected as housing starts moderate, but then pick up again commencing in 2025 and move higher throughout the forecast period.
- Renovation- and maintenance-related employment record year-over-year increases throughout the decade.
- Gains in renovation and maintenance activity are expected to offset declines in new-home construction, leaving the sector with negligible gains in overall employment.

Non-residential

- Engineering employment experiences several waves as projects are completed, with peaks in 2024, 2027, and then 2030 through to 2032.
- ICI (industrial, commercial, institutional) employment rises to a peak in 2025 and then declines over the remainder of the forecast period.
- Maintenance-related employment makes steady increases through to 2032.
- Overall, non-residential construction employment is expected to increase by 8% over the forecast period.

Total direct trades and occupations



Construction and Maintenance Looking Forward, Employment Change

Source: Statistics Canada, BuildForce Canada (2023-2032)

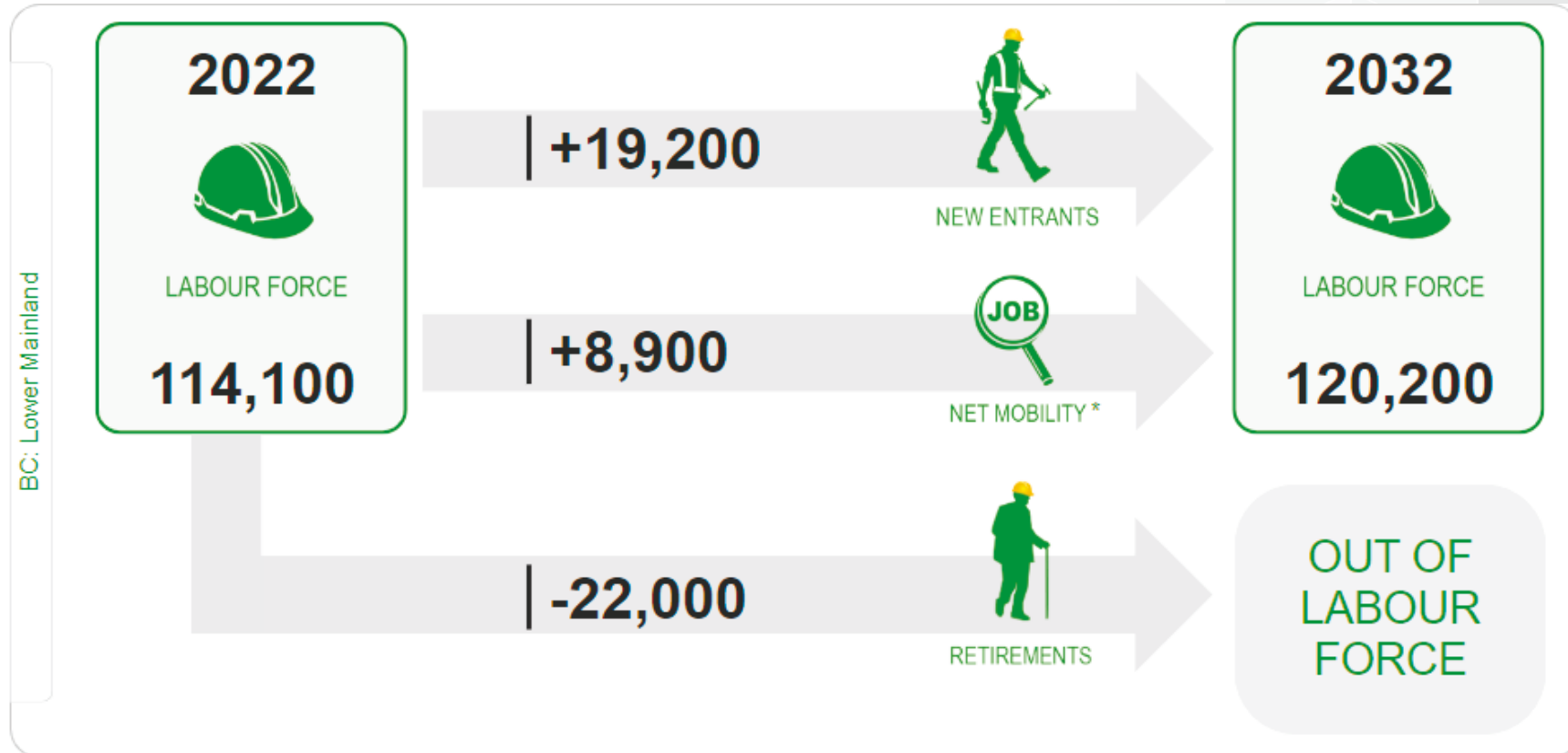
Lower Mainland construction industry overview: Labour force



2023–2032

- Rising demands will require the regional construction labour force to increase by 6,100 workers.
- The retirement of approximately 22,000 workers during the forecast period will increase the overall hiring requirements for the industry to 28,100.
- Based on historical recruitment levels, the industry is expected to add 19,200 workers during the forecast period.
- Unless recruitment increases, the regional sector may need to add as many as 8,900 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



Construction and Maintenance Looking Forward, Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.



Residential construction

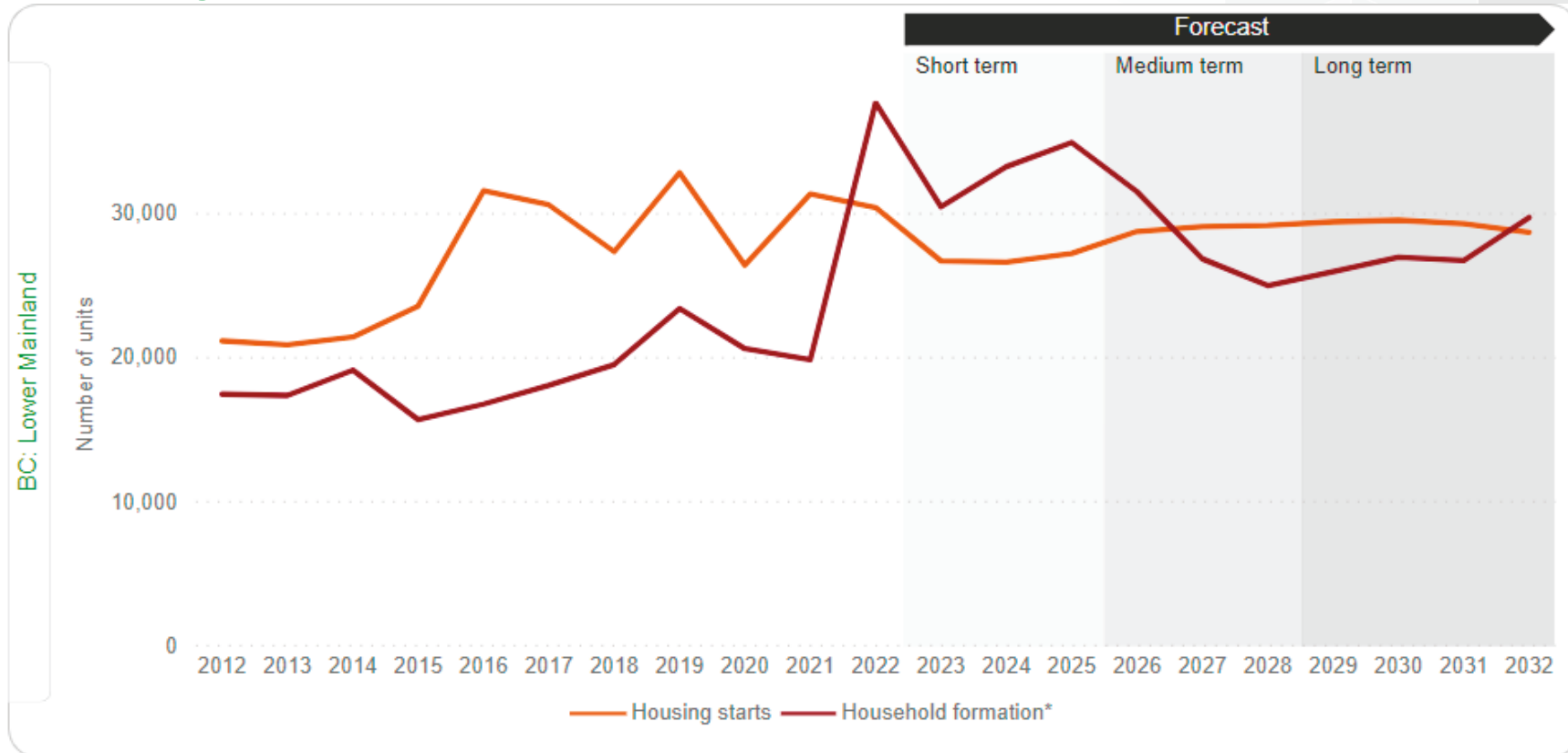
- Housing starts and household formations
- Investment
- Housing starts by structure type
- Employment
- Labour market rankings

Lower Mainland residential construction



- International migration fell sharply from 2020 to 2021 but was offset by rising interprovincial migration.
- In 2022, migration levels surged as international students returned and many world-be immigrants were fast-tracked for permanent residency.
- Consequently, rental vacancy rates declined, and the rental market remains under pressure.
- Despite strong population growth, a net reduction in housing starts is expected in 2023 and 2024 due to higher interest rates.
- Household formations* are expected to remain elevated in the short term, creating further pressure on the already tight rental market.
- Elevated formations and rising international migration targets will lead to moderate increases in housing starts over the medium to long term.

Housing starts and household formations



 [Construction and Maintenance Looking Forward, Residential Construction](#)

Source: CMHC, BuildForce Canada (2023-2032)

* **Household formation** refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.

Lower Mainland residential construction



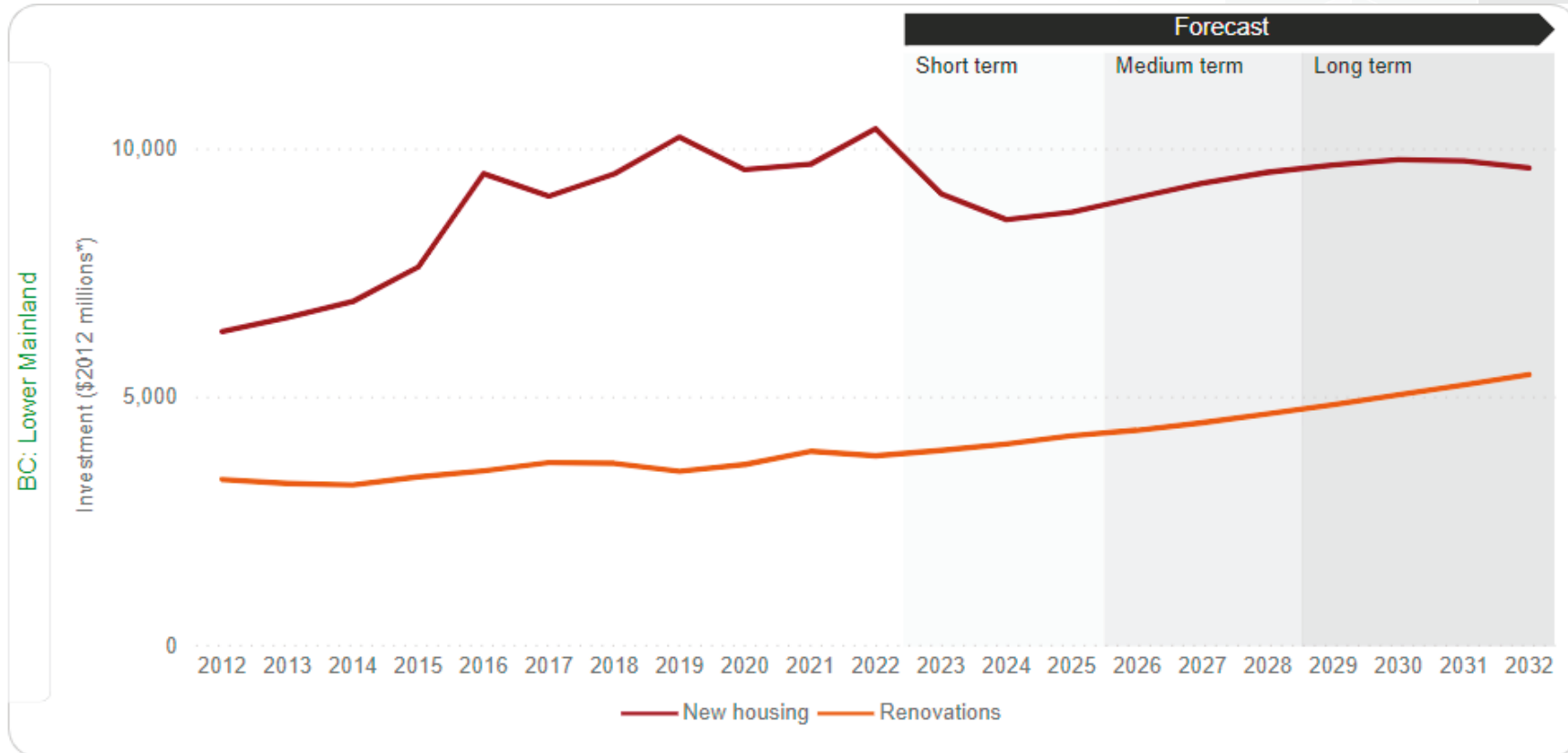
New housing

- New-housing investment will come off a peak as starts decline due to rising interest rates in the short term.
- As consumers adjust their expectations to higher interest rates and population growth increases pressure for new homes, an upward cycle is expected commencing in 2024 that will extend to 2030 before moderating thereafter to 2032.

Renovations

- The aging of the housing stock and higher levels of migration to the province have been contributing to yearly increases in renovation investment levels.
- Despite rising interest rates, investment levels in the province's renovation market are expected to continue to rise throughout the forecast period.

Investment



Construction and Maintenance Looking Forward, Residential Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

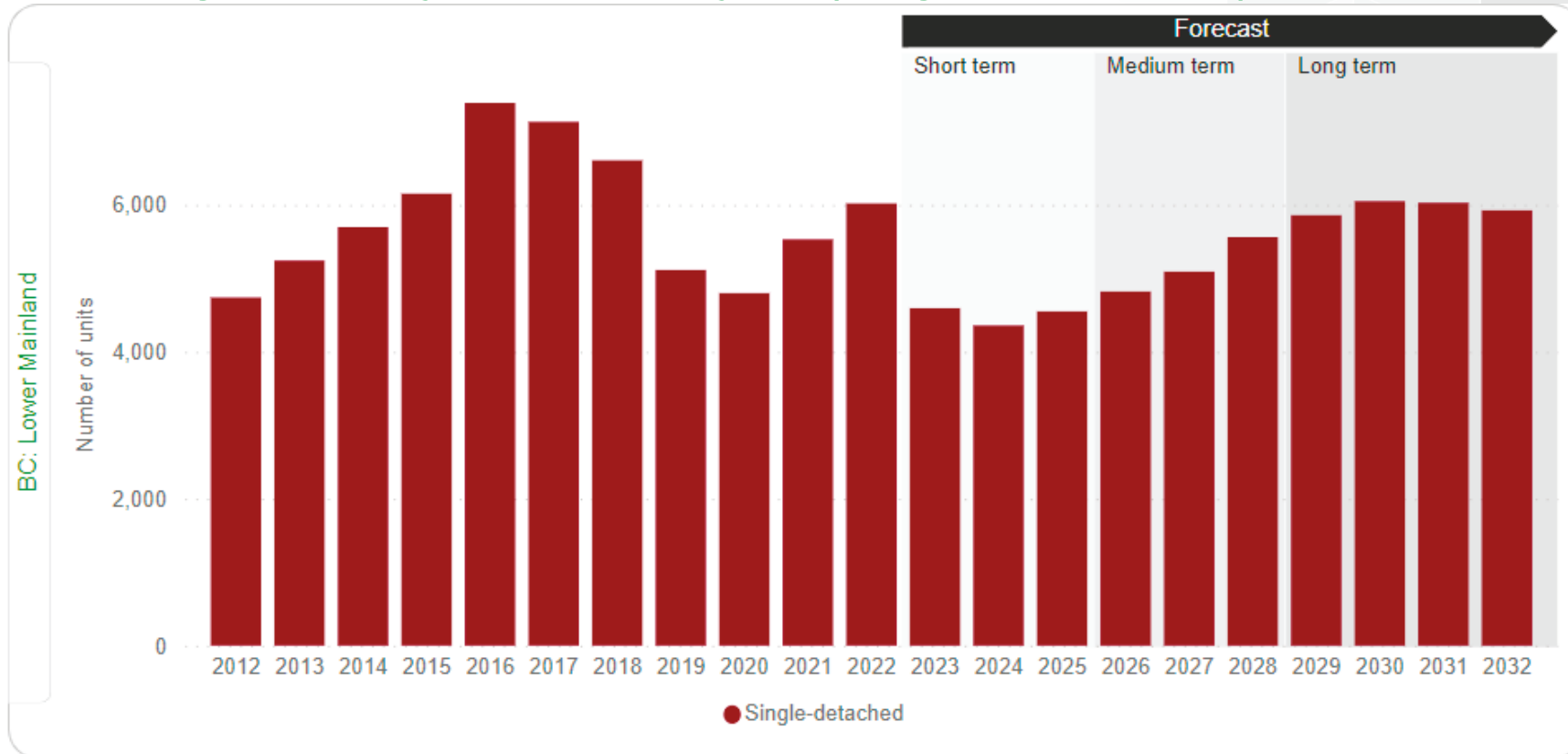
* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Lower Mainland residential construction



- Single-detached* unit construction was elevated in 2022 but commenced declining in late 2022.
- As these are more relatively expensive units, a moderate decline in demand is expected due to rising interest rates.
- Unlike international migrants who do tend to rent upon arrival in Canada, interprovincial migrants tend to buy right away after cashing out of relatively more expensive markets in other parts of the country, which should keep demand elevated despite higher lending rates.
- As interest rates are relaxed and economic growth accelerates in 2025, demand for singles should increase to 2029 before declining thereafter in the last two years of the forecast period.
- The longer-run demand forecast is supported by trends in the population age structure. The general population is aging and a good share of international migrants are expected to be over 35 years of age. Both domestic and international migrants to the province are expected, due to their age, to have higher incomes and more wealth to support the demand for singles.
- With those trends in effect, single-detached formations will continue to experience upward pressure from the age shift, despite population growth slowing in the latter half of the decade.

Housing starts by structure type (single-detached)



BC: Lower Mainland
Construction and Maintenance Looking Forward, Single Housing Starts

Source: CMHC, BuildForce Canada (2023-2032)

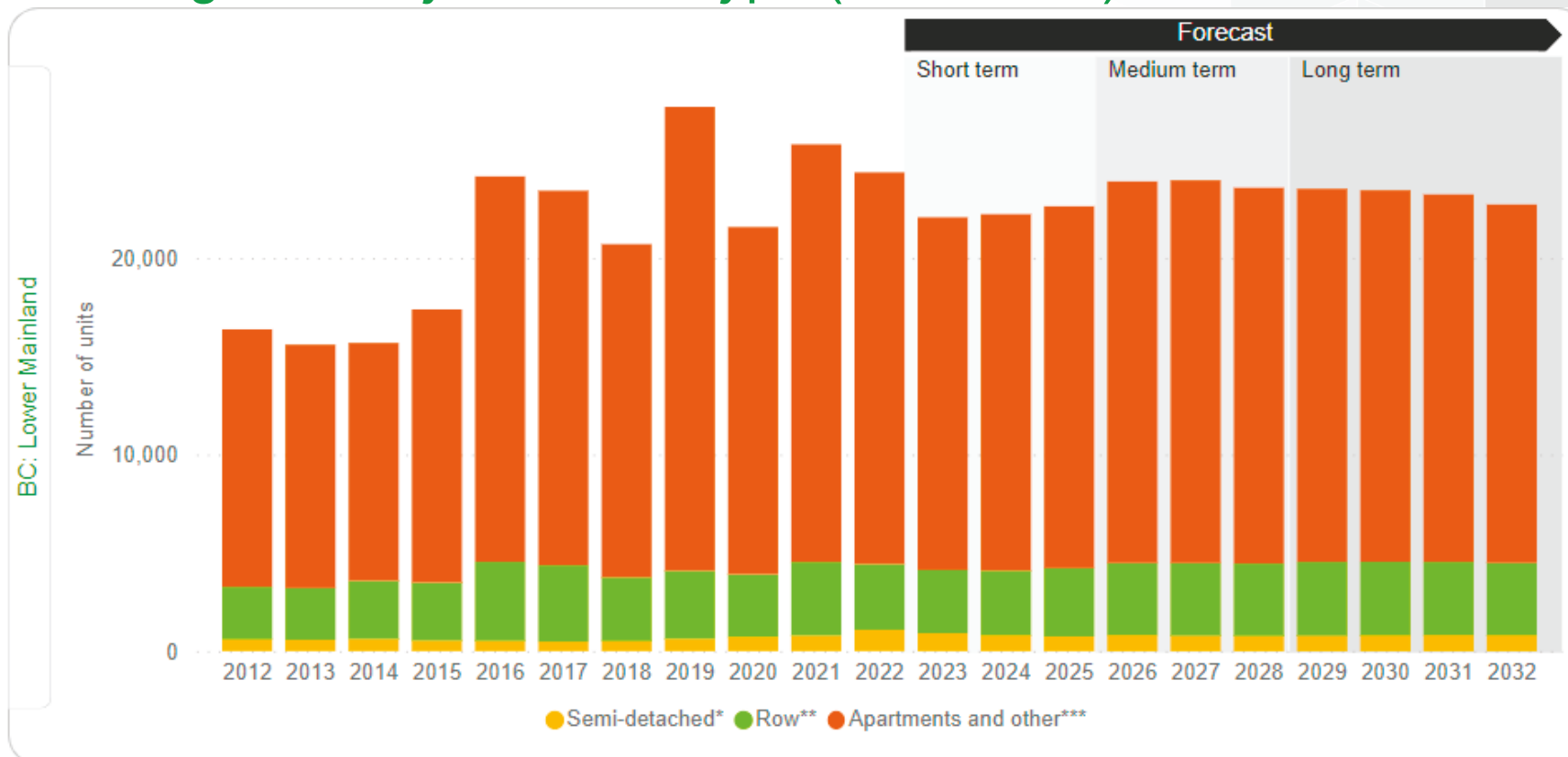
* **Single-detached (single)** refers to a building containing only one dwelling unit that is completely separated on all sides from any other dwelling or structure.

Lower Mainland residential construction



- Multi-unit construction was down slightly in 2022.
- Apartment*** units dominate multi-unit construction types, which are expected to experience a slowdown along with semi-detached* units.
- Row** housing also declined in 2022 and is expected to decline further in 2023. Thereafter, row housing is expected to rise steadily throughout the forecast period.
- With the current rental vacancy rates low and migration levels to the province rising, multi-unit construction is expected to decline in 2023 and thereafter grow steadily to 2027. Population trends then moderate demand slightly in the final few years of the forecast period.
- Multi-unit construction will account for about 60% of total housing starts each year through most of the decade.

Housing starts by structure type (multi-units)



Construction and Maintenance Looking Forward, Multiples Housing Starts

Source: CMHC, BuildForce Canada (2023-2032)

* **Semi-detached** and **semi** refer to one of two dwellings located side-by-side in a building, adjoining no other structure, and separated by a common or party wall extending from ground to roof.

** **Row** refers to a one-family dwelling unit in a row of three or more attached dwellings separated by a common or party wall extending from ground to roof.

*** **Apartments and other** includes all dwellings other than those described above, including structures commonly known as stacked townhouses, duplexes, triplexes, double duplexes, and row duplexes.

Lower Mainland residential construction: Employment



- The rapid rise in new-housing construction has been a significant driver of construction employment growth.

New housing

- New-housing-related employment is expected to moderate in 2023 and 2024 from elevated 2022 levels before rising steadily over the forecast period.

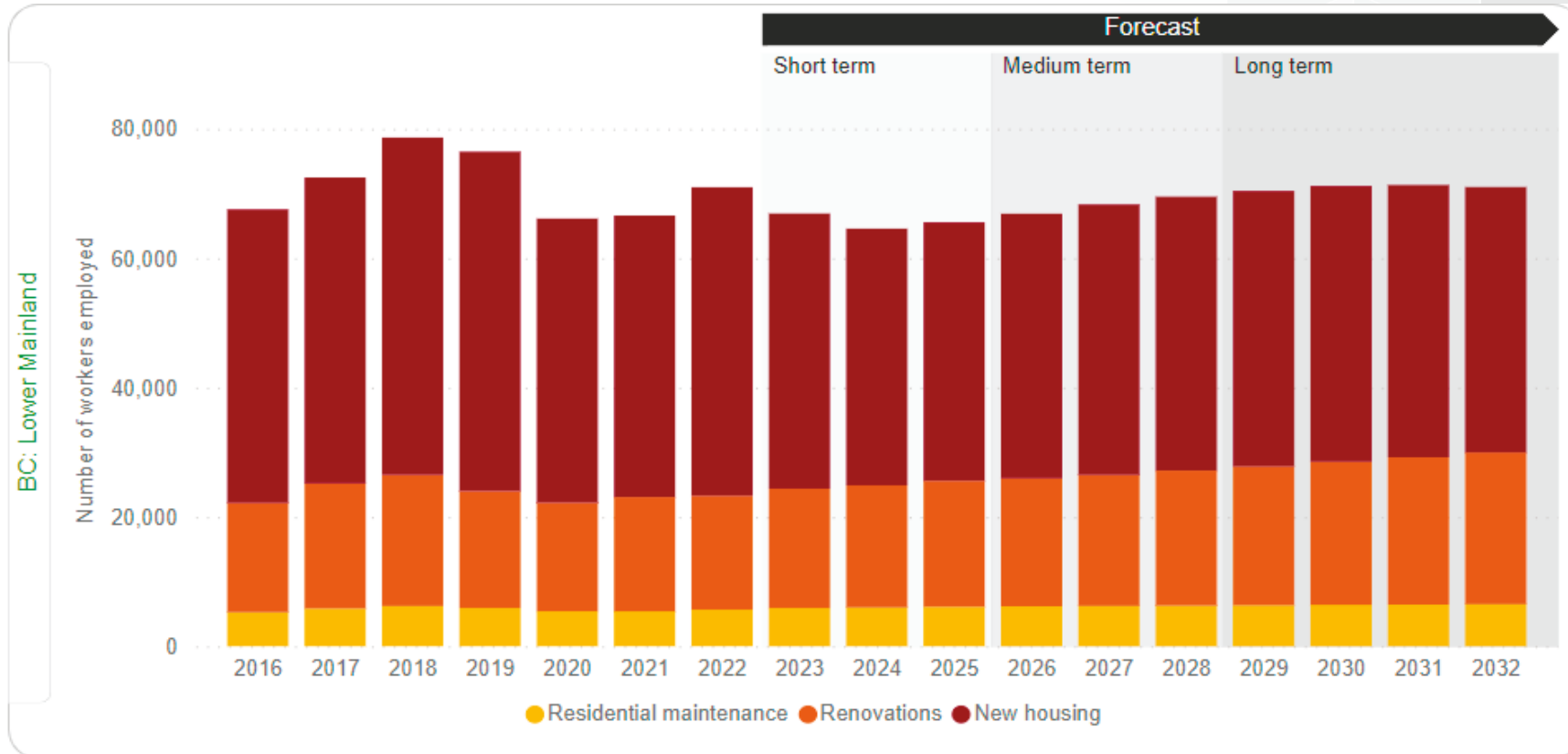
Renovations

- Renovation-related employment is expected to continue to rise throughout the forecast period.

Total

- Between 2022 and 2032:
 - New housing is down 6,700 workers (-14%).
 - Renovation is up 5,800 workers (+33%).
 - Maintenance is up 850 workers (+15%).
- Overall, residential employment is expected to remain near 2022 levels by 2032, as gains in renovation and maintenance work offset new-home declines.

Total direct trades and occupations



Construction and Maintenance Looking Forward, Residential Employment

Source: BuildForce Canada (2023-2032)

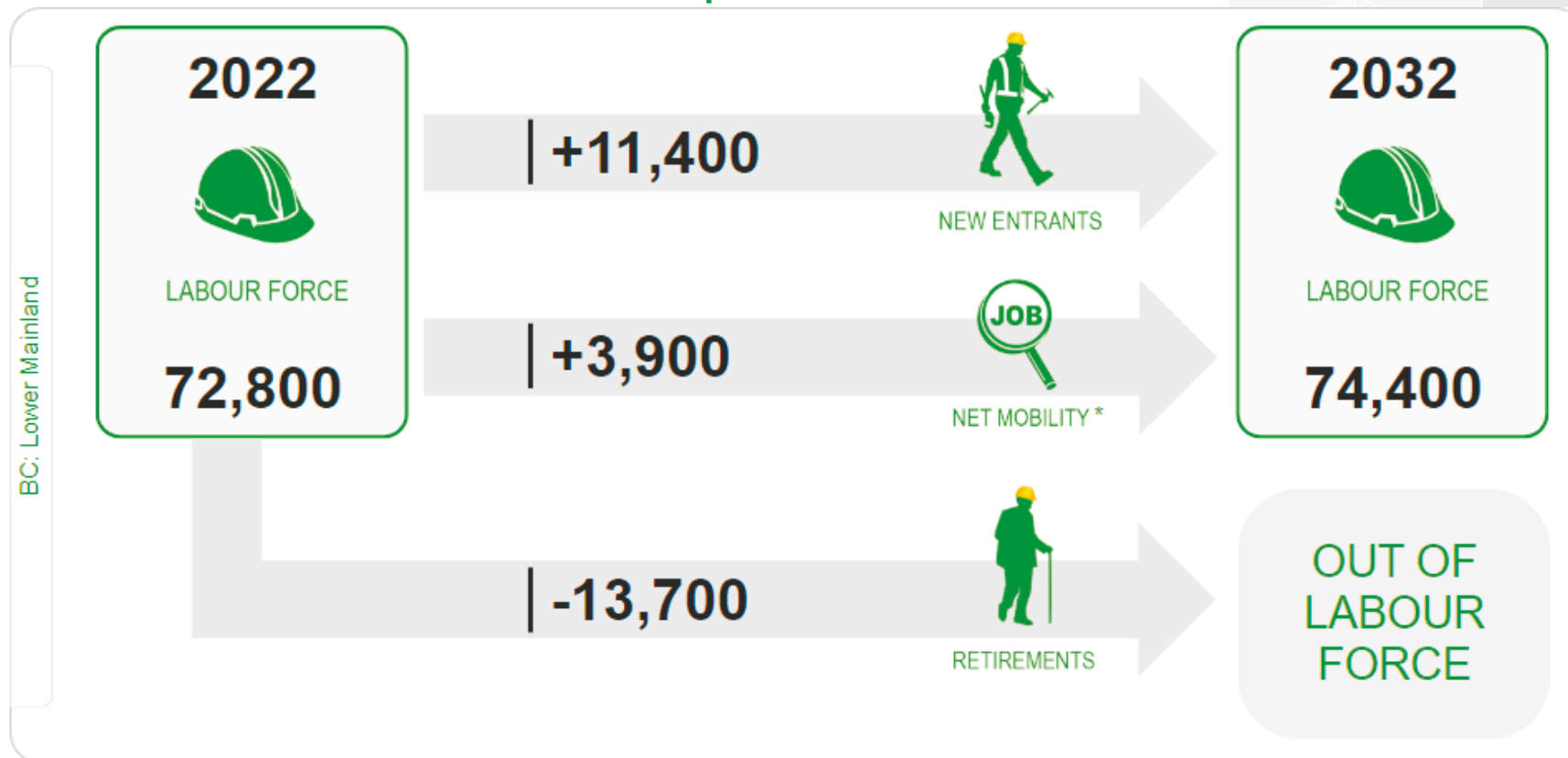
Lower Mainland residential construction: Labour force



2023–2032

- Rising demands will require the regional residential construction labour force to increase by 1,600 workers.
- The retirement of approximately 13,700 workers during the forecast period will increase the overall hiring requirements for the industry to 15,300.
- Based on historical recruitment levels, the industry is expected to add 11,400 workers during the forecast period.
- Unless recruitment increases, the regional sector may need to add as many as 3,900 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



BC: Lower Mainland
 Construction and Maintenance Looking Forward, Residential Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.

Lower Mainland residential construction



- While BuildForce tracks market conditions for 34 construction trades and occupations, labour market rankings are limited to **27 residential trades and occupations**; rankings for smaller trades and occupations (<100 workers) are suppressed due to statistical reliability.
- The market rank indicator runs from “1” (excess supply; risk of losing workers from the industry) to “5” (severe challenges recruiting construction workers in the local market).
- A rank of “3” refers to balanced market conditions, where qualified workers are generally available. There could be tighter conditions during peak seasons, however, due to coinciding major projects and/or maintenance work, which could limit the availability of workers.

Labour market rankings



Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.



Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.



The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.



Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.



Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

Lower Mainland residential construction



- The surge in housing starts in 2022 created exceptionally tight labour markets throughout the year.
- Labour markets are expected to return to balanced conditions in 2023.
- As 2023 projects are completed, markets are expected to loosen further, creating softer labour market conditions in 2024.
- As labour markets adjust, balanced conditions are then expected to return in 2025 and remain balanced for most trades and occupations over the remainder of the forecast period.

Selected trades and occupations

BC: Lower Mainland

Trades and occupations - Residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bricklayers	4	3	2	3	3	3	3	3	3	3	3
Carpenters	4	3	2	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	5	3	2	3	3	3	3	3	3	3	3
Construction managers	5	3	3	3	3	3	3	3	3	3	2
Contractors and supervisors	4	3	2	3	3	3	3	3	3	3	3
Crane operators	5	3	2	3	3	3	3	3	3	3	2
Electricians	4	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	3	2	3	3	3	3	3	3	3	3
Floor covering installers	4	3	2	3	3	3	3	3	3	3	3
Gas fitters	5	3	2	3	3	3	3	3	3	3	3
Glaziers	4	3	2	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	2	3	3	3	3	3	3	3	3

[Construction and Maintenance Looking Forward, Residential Rankings](#)

Continued on next slide

Lower Mainland residential construction



- The surge in housing starts in 2022 created exceptionally tight labour markets throughout the year.
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- As 2023 projects are completed, markets are expected to loosen further, creating softer labour market conditions in 2024.
- As labour markets adjust, balanced conditions are then expected to return in 2025 and remain balanced for most trades and occupations over the remainder of the forecast period.

Selected trades and occupations

BC: Lower Mainland

Trades and occupations - Residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Home building and renovation managers	4	3	2	3	3	3	3	3	3	3	3
Insulators	4	2	2	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	2	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	4	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	3	2	3	3	3	3	3	3	3	3
Plumbers	4	3	2	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	3	2	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	4	3	2	3	3	3	3	3	3	3	3
Tilesetters	4	3	2	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	2	2	3	3	3	3	3	3	3	3
Truck drivers	4	2	2	3	3	3	3	3	3	3	3
Welders and related machine operators	4	2	2	3	3	3	3	3	3	3	3

[Construction and Maintenance Looking Forward, Residential Rankings](#)



Non-residential construction

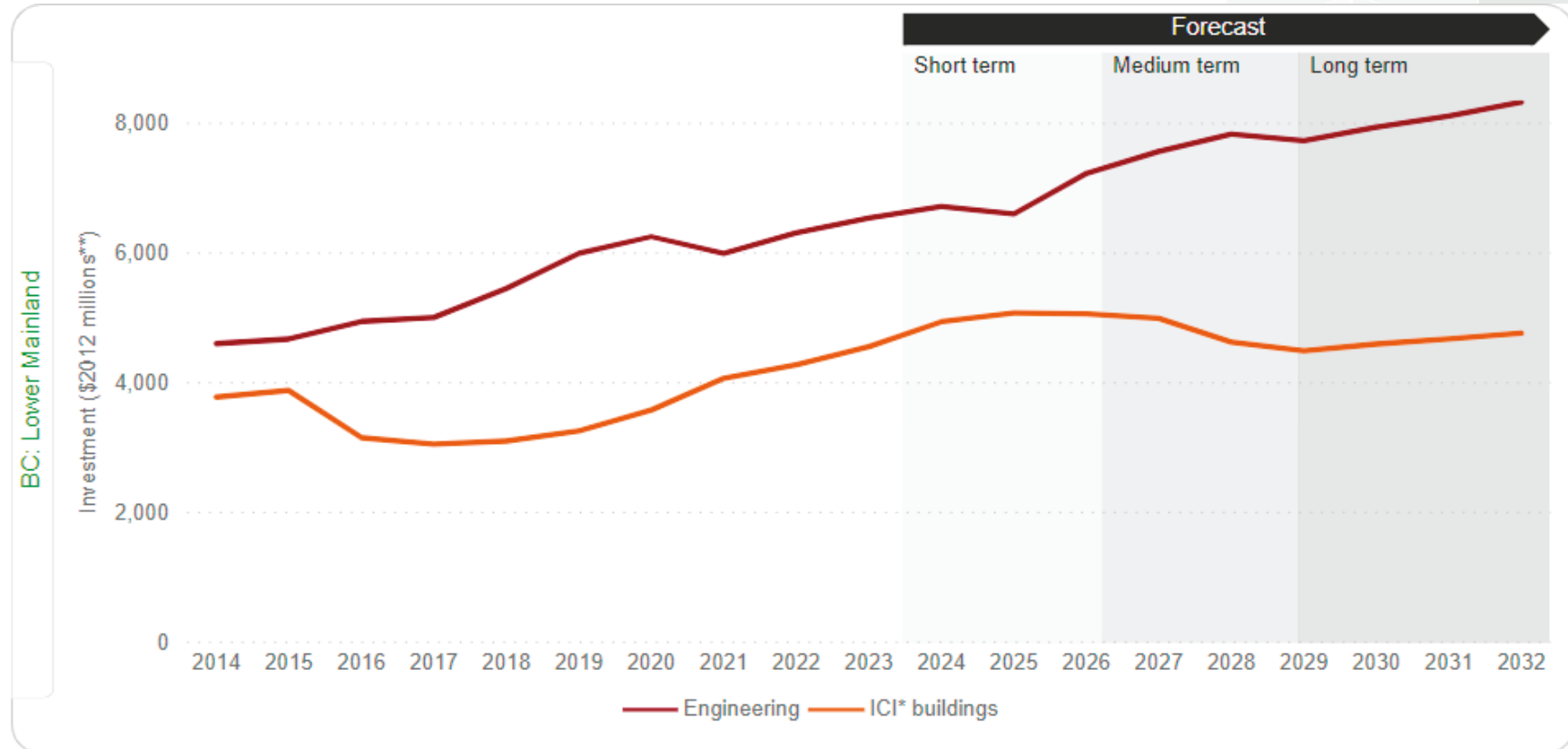
- Investment
- Employment
- Labour market rankings

Lower Mainland non-residential construction



- **Engineering** investment is expected to experience a minor downward cycle in the short term as several large projects are completed.
- Investments in public transit are then expected to lift investment higher commencing in 2025 through to 2028, with further gains expected in the last few years of the forecast period.
- **Institutional-building** construction has been soaring to meet demand from strong population growth in the province. Schools and health care facilities have made a significant contribution to the province's capital budget since 2019.
- Investment is expected to ramp up to a peak in 2025, with modest declines thereafter to 2029, as many of the hospital projects near completion.

Investment



Construction and Maintenance Looking Forward, Non-residential Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: Non-residential construction excludes the value of machinery and equipment.

* industrial, commercial, institutional

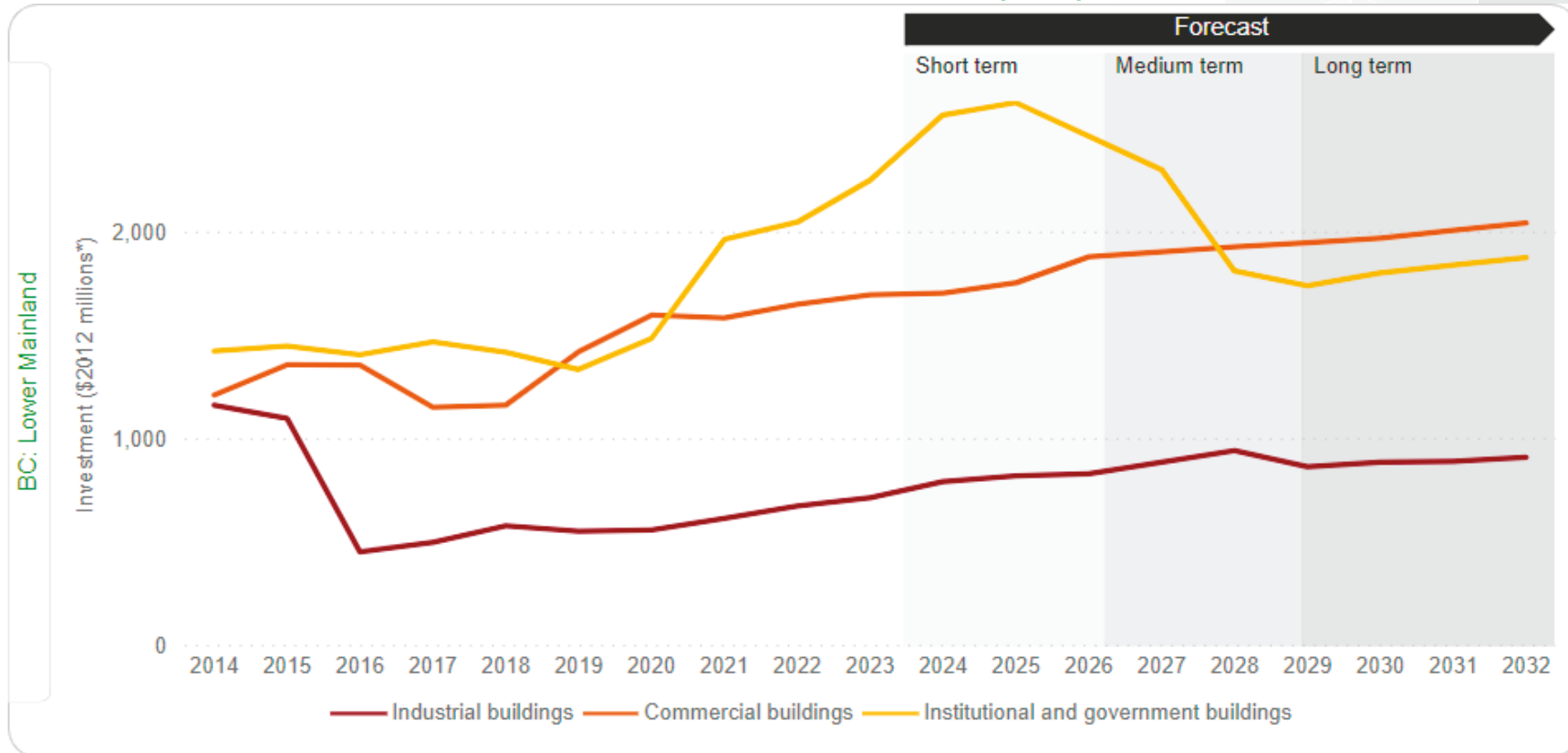
** \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Lower Mainland non-residential construction: Investment



- **Industrial-building** investment reaches a peak in 2028 with growth in the manufacturing sector and spin-off activity associated with major public transit, port terminal, and wastewater facilities projects. As work on the Millennium Line (Broadway) concludes, investment should remain elevated with work on the Surrey Langley SkyTrain and the Roberts Bank terminal expansion.
- **Commercial-building** investment is supported by continued post-pandemic growth in the short and medium terms, and later growth in response to the region's increasing population base. It is expected to record an increase of as much as 24% over the forecast period.
- **Institutional and government** construction is being supported in the short term by robust spending on hospitals and in the health care sector. Investment contracts thereafter as these projects are completed. Investment peaks in 2025 and then contracts to 8% below 2022 levels by 2032.

Industrial, commercial, and institutional (ICI)



Construction and Maintenance Looking Forward, Buildings Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: Non-residential construction excludes the value of machinery and equipment.

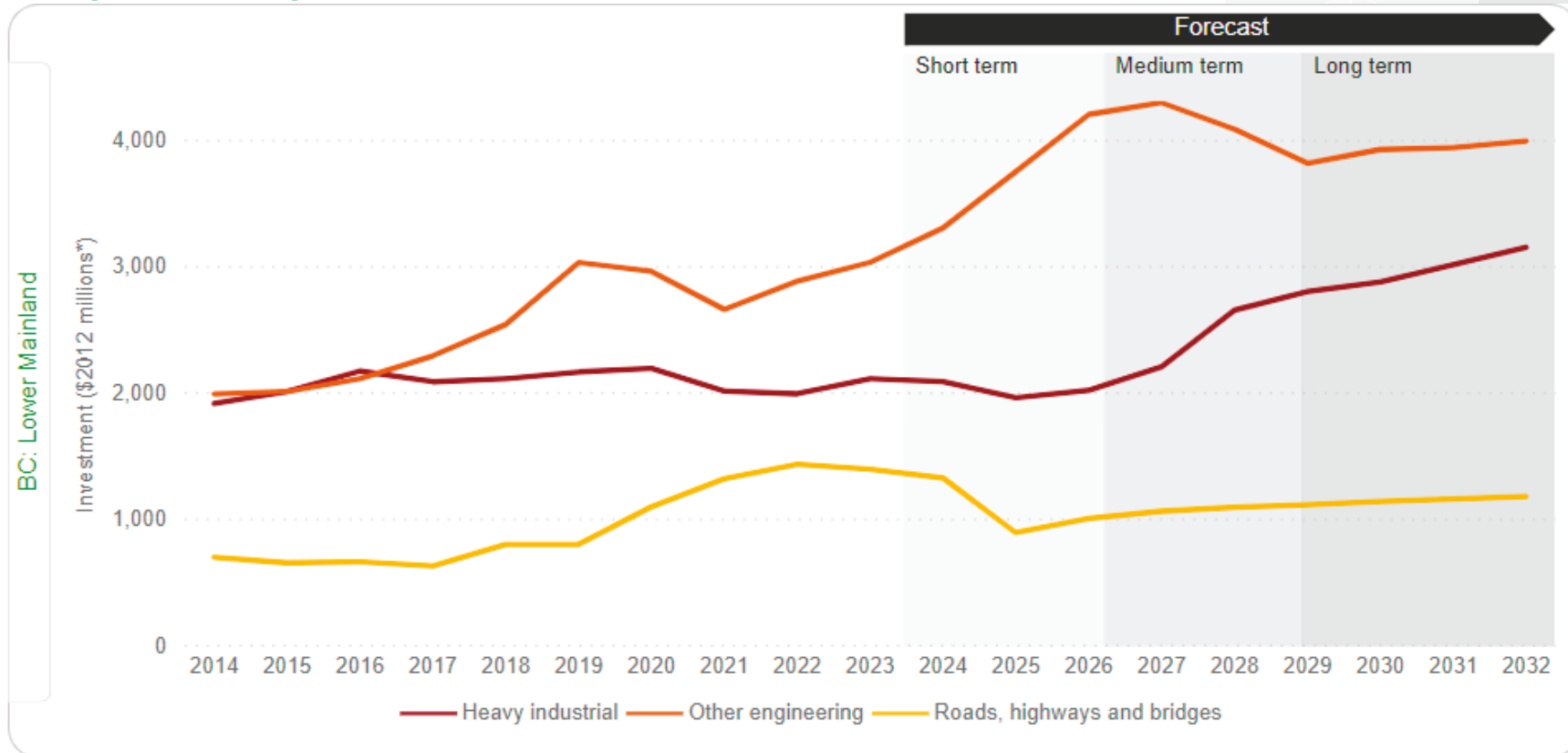
* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Lower Mainland non-residential construction: Investment



- **Heavy-industrial engineering** is expected to rebound into 2023 as work on the Second Narrows Water Supply Tunnel and North Shore Wastewater Treatment Plant reach peak activity. Spending cycles lower through 2025 with project completions, then cycles back upward, as the growing population warrants further infrastructure expansion in the utilities sector.
- **Other-engineering** investment will remain elevated to 2027 fuelled by several multi-billion-dollar projects, including the Millennium Line (Broadway), Surrey Langley SkyTrain, Roberts Bank container expansion, and Woodfibre liquefied natural gas project and associated pipeline. Investment will recede slightly thereafter, but remains elevated with work on the Surrey Langley SkyTrain and Roberts Bank container expansion.
- **Roads, highways, and bridges** investment is elevated to 2024 with construction on the Pattullo Bridge replacement, the Highway 91 to Highway 17 corridor improvement projects, the Highway 1 widening, and the Lower Lynn Corridor improvements. As these wind down, investment is expected to recede to 2025 before growth gradually returns thereafter with the start of the George Massey Tunnel replacement.

Engineering



Construction and Maintenance Looking Forward, Engineering Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: **Engineering construction** excludes the value of machinery and equipment. **Heavy-industrial engineering** includes oil and gas, mining, electric power, wastewater, gas distribution, etc. **Other engineering** includes pipelines, transit systems, tunnels, and other civil engineering.

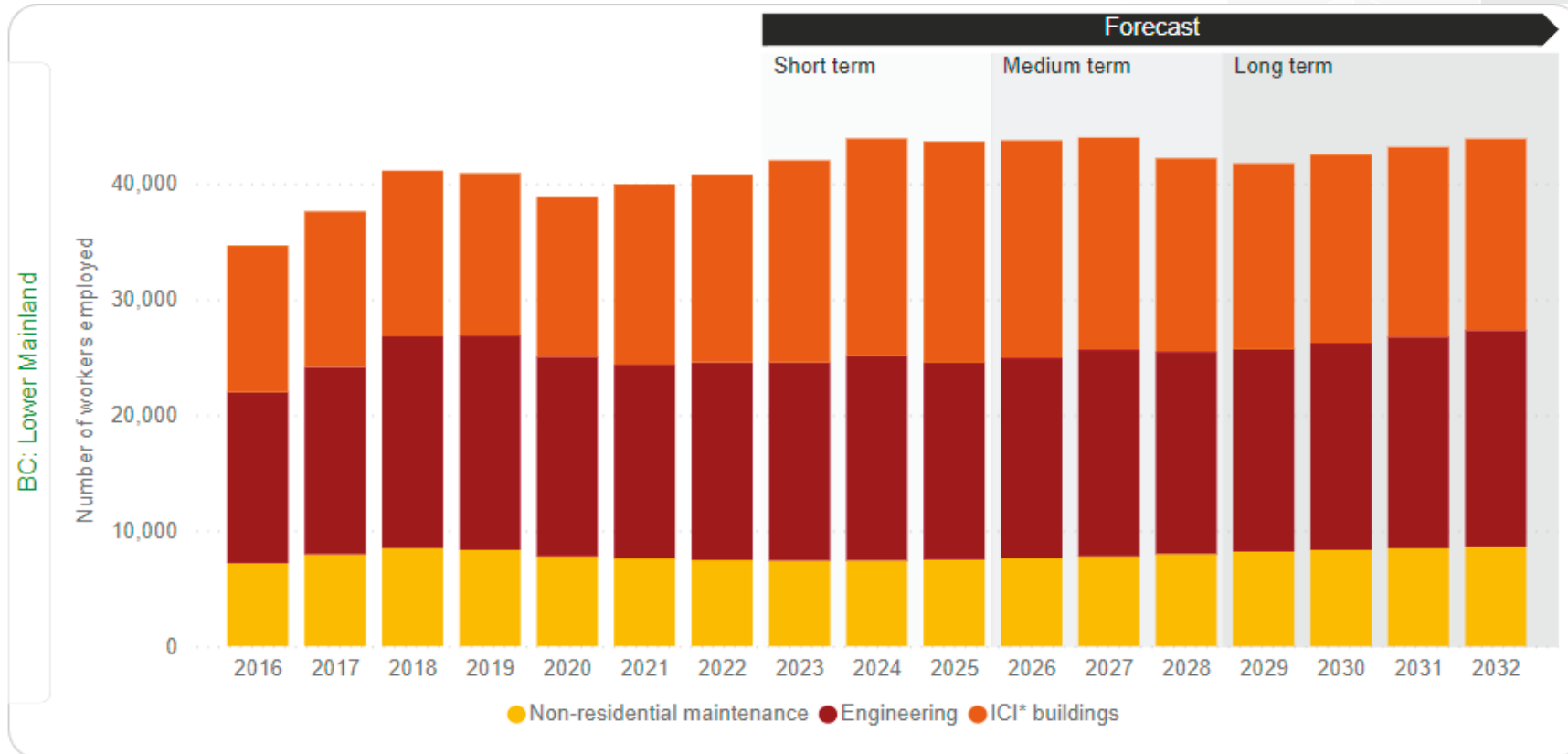
* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Lower Mainland non-residential construction: Employment



- Significant near-term demands, driven by a wave of major investments, will bring non-residential construction employment in the Lower Mainland to a peak of nearly 44,000 workers by 2024. This adds more than 3,100 workers (+8%) to 2022 levels.
- As these projects wind down, employment is expected to retreat moderately. By 2032, it returns to peak levels, about 3,100 workers (+8%) above 2022 levels.
- **Engineering**-related employment will rise significantly through the short term, adding about 600 workers. It cycles lower before increasing significantly in the long term. Employment rises by 9% (+1,600 workers) compared to 2022.
- **ICI*** construction employment is also expected to see good growth through the short term, reaching a peak of more than 19,100 workers (+2,900 workers above 2022 levels) in 2025. Thereafter, employment contracts to just 300 workers (+2%) over 2022 levels.
- **Maintenance** requirements will rise gradually over the forecast period, adding 12,000 workers (+16%) between 2022 and 2032.
- Employment fluctuates in line with the timing of major projects, but remains well above 2022 levels across the forecast period.

Total direct trades and occupations



BC: Lower Mainland
 Construction and Maintenance Looking Forward, Non-residential Employment

Source: BuildForce Canada (2023-2032)

* industrial, commercial and institutional

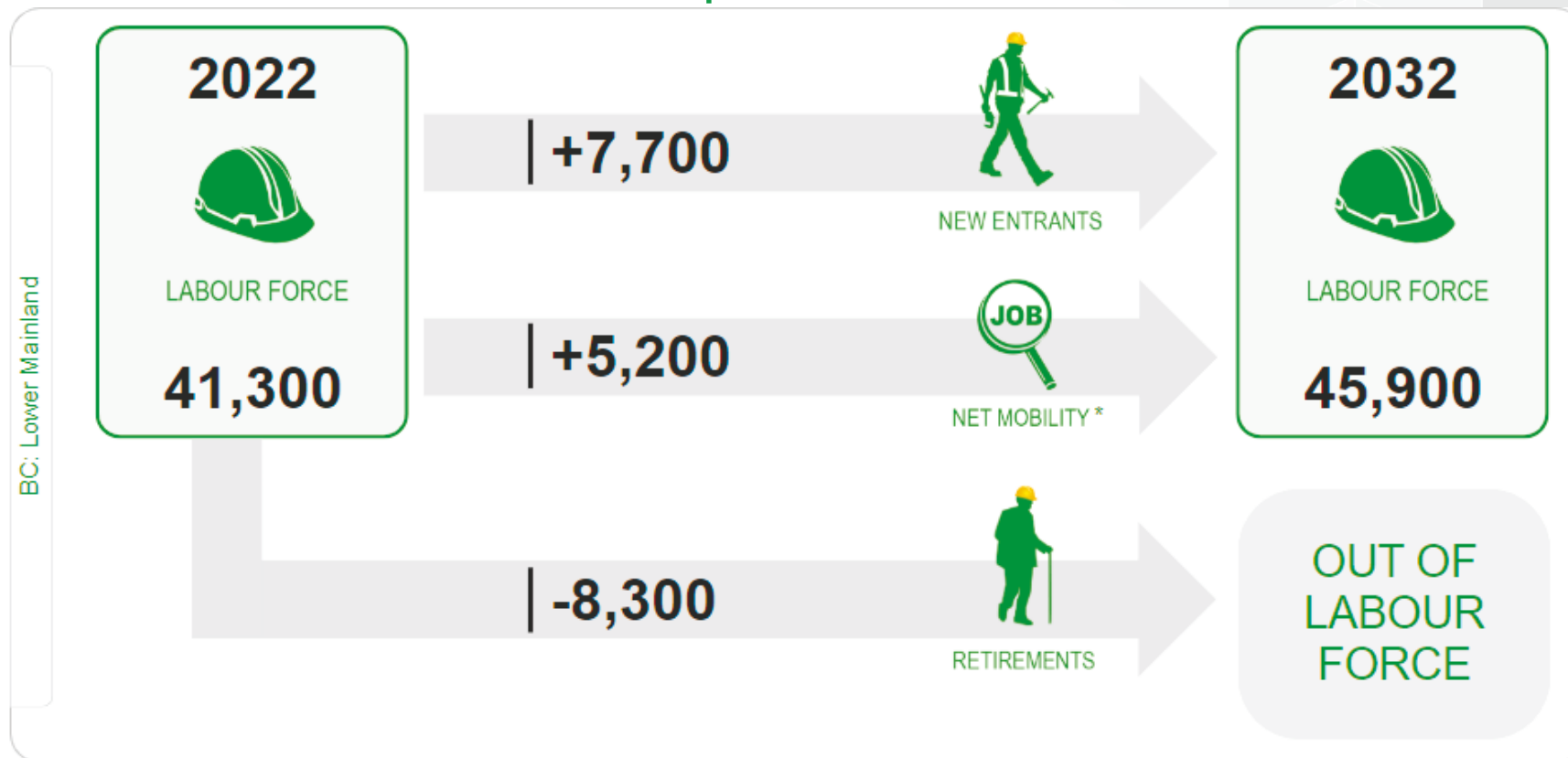
Lower Mainland non-residential construction: Labour force



2023–2032

- Rising demands will require the regional non-residential labour force to increase by 4,600 workers.
- The retirement of approximately 8,300 workers during the forecast period will increase the overall hiring requirements for the industry to 12,900.
- Based on historical recruitment levels, the industry is expected to add 7,700 workers during the forecast period.
- Unless recruitment increases, the regional sector may need to add as many as 5,200 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



Construction and Maintenance Looking Forward, Non-residential Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.

Lower Mainland non-residential construction



- While BuildForce tracks market conditions for 34 construction trades and occupations, labour market rankings are limited to **32 non-residential trades and occupations**; rankings for smaller trades and occupations (<100 workers) are suppressed due to statistical reliability
- The market rank indicator runs from “1” (excess supply; risk of losing workers from the industry) to “5” (severe challenges recruiting construction workers in the local market).
- A rank of “3” refers to balanced market conditions, where qualified workers are generally available. There could be tighter conditions during peak seasons, however, due to coinciding major projects and/or maintenance work, which could limit the availability of workers.

Labour market rankings



Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.



Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.



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Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.



Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

Lower Mainland non-residential construction



- Employment demand was exceptionally strong in 2022, placing significant pressure on construction labour markets.
- As some of this work carries over into 2023 and 2024, pressures on the labour force are only expected to moderate slightly.
- Labour markets are expected to return to balanced, and even over-supplied, conditions thereafter, and for the remainder of the forecast period.

Selected trades and occupations

BC: Lower Mainland

Trades and occupations - Non-residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Boilermakers	4	3	3	3	3	3	3	3	3	3	3
Bricklayers	4	4	4	3	3	3	2	2	3	3	3
Carpenters	4	4	3	3	3	3	2	3	3	3	3
Concrete finishers	4	4	4	3	2	2	2	2	3	3	3
Construction estimators	4	3	3	2	3	3	2	3	3	3	3
Construction managers	4	4	4	2	2	2	2	2	3	3	3
Construction millwrights and industrial mechanics	4	3	3	3	3	3	3	3	3	3	3
Contractors and supervisors	4	4	3	2	3	3	2	3	3	3	3
Crane operators	4	4	3	3	3	2	2	3	3	3	3
Drillers and blasters	4	3	3	2	3	3	3	3	3	3	3
Electrical power line and cable workers	3	3	3	2	3	4	3	3	3	3	3
Electricians	4	4	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	4	4	3	3	3	2	3	3	3	3
Floor covering installers	4	4	4	3	3	3	2	3	3	3	3
Gas fitters	4	4	4	3	3	3	3	3	3	3	3
Glaziers	4	4	4	3	3	3	2	2	3	3	3
Heavy equipment operators (except crane)	4	3	3	2	3	3	3	3	3	3	3

Construction and Maintenance Looking Forward, Non-residential Rankings

Continued on next slide

Lower Mainland non-residential construction



- Employment demand was exceptionally strong in 2022, placing significant pressure on construction labour markets in the province.
- As some of this work carries over into 2023 and 2024, pressures on the labour force are only expected to moderate slightly.
- Labour markets are expected to return to balanced, and even over-supplied, conditions thereafter, and for the remainder of the forecast period.

Selected trades and occupations

BC: Lower Mainland

Trades and occupations - Non-residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Heavy-duty equipment mechanics	4	3	3	2	3	3	3	3	3	3	3
Insulators	3	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	4	3	3	3	2	3	3	3	3
Painters and decorators (except interior decorators)	4	4	4	3	3	3	2	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	4	4	3	3	3	2	3	3	3	3
Plumbers	4	4	3	3	3	3	2	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	4	3	3	3	2	3	3	3	3
Residential and commercial installers and servicers	4	4	4	3	3	3	2	2	3	3	3
Roofers and shinglers	4	4	3	3	3	3	2	3	3	3	3
Sheet metal workers	4	4	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	3	4	3	3	3	3	2	3	3	3	3
Tilesetters	4	4	4	3	3	2	2	3	3	3	3
Trades helpers and labourers	4	3	3	3	3	3	2	3	3	3	3
Truck drivers	4	3	3	3	3	3	2	3	3	3	3
Welders and related machine operators	4	4	3	3	3	3	2	3	3	3	3

Construction and Maintenance Looking Forward, Non-residential Rankings



Vancouver Island region

The Vancouver Island & Coast economic region includes a number of regional districts, including the Capital Region, Cowichan Valley, Nanaimo, Alberni-Clayoquot, Strathcona, Comox Valley, Powell River, Mount Waddington, and Central Coast.



Construction industry



Residential sector

Includes single dwellings, semi-detached, townhouses, row houses, and apartments and condominiums

- Residential construction investment increased by 2% in 2022, as housing starts came off a 2021 peak of more than 9,100 units to record another strong performance of nearly 8,600 units.
- At more than 8,300 units, household formations* jumped to their highest-ever level in the region, suggesting that demand for new housing will be supported by a growing population.
- Renovation spending was virtually unchanged.
- Residential employment added 780 jobs (+4%) in 2022.



Non-residential sector

Includes industrial, commercial, and institutional buildings; roads, highways, and bridges; and other engineered civil projects

- The start of construction on several major education and health care projects boosted non-residential construction investment by 5% in 2022.
- Employment added about 800 jobs (+6%) over 2021 levels, with increasing activity in public transportation and infrastructure projects, and across the industrial, commercial, and institutional sectors, with the start of work on major school and health care projects, and the continued rebound in the hospitality and tourism sectors.

* **Household formation** refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.



Construction industry



Residential sector

Includes single dwellings, semi-detached, townhouses, row houses, and apartments and condominiums

- After reaching a peak in 2022, residential investment is expected to recede in the next few years in line with lower housing starts, before resuming growth after 2026.
 - Although down from their 2022 peak, housing starts will remain at relatively high levels through the forecast period, contracting by 3% after 2023.
- Residential employment follows a similar path, stepping down off a 2022 high to a low in 2024 and then cycling up later in the decade, but remains below the 2022 peak.
- By the end of the forecast period, residential employment contracts by 1,100 workers (-4%) compared to 2022 levels. Employment gains in renovation and maintenance work only partially offset declines in new-home construction.



Non-residential sector

Includes industrial, commercial, and institutional buildings; roads, highways, and bridges; and other engineered civil projects

- Non-residential construction investment is expected to step back in 2023 as projects are completed and business investment slows with rising interest rates.
- Investment rises to a peak in 2026 and remains relatively unchanged through the remainder of the forecast period.
- By the end of the decade, non-residential employment is almost unchanged from 2022 levels.

Vancouver Island construction industry overview



Residential

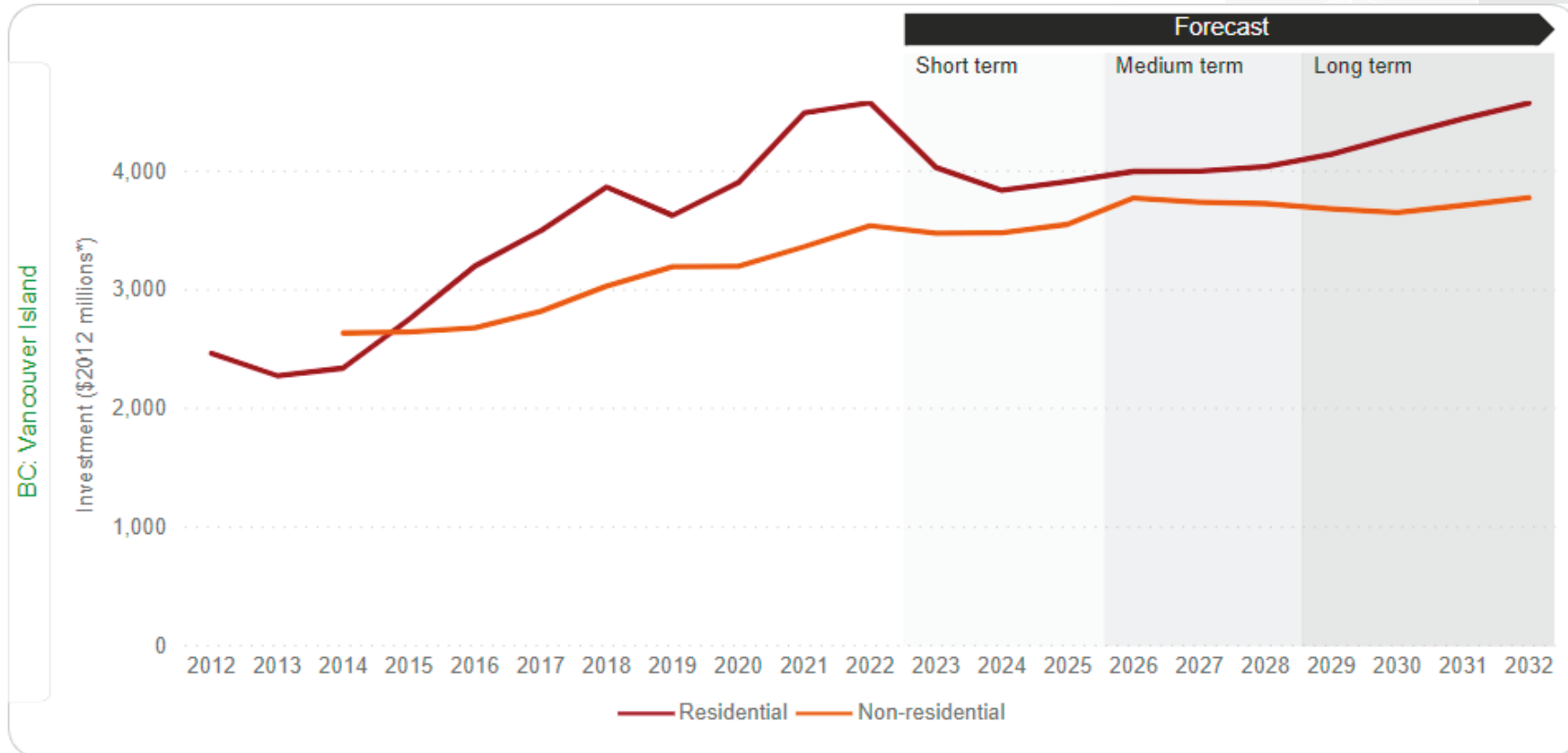
- Rising interest rates will have a short-term impact on investment levels.
- Investment is expected to retreat across most of the forecast period, reaching a low in 2026.
- As consumers adjust to higher borrowing costs, investment levels are expected to rise again to accommodate the higher levels of migration to the province.
- Investment is mostly unchanged across the forecast period.

Non-residential

- Investment contracts in 2023 as some major projects end or wind down, and business investment slows in line with rising interest rates.
- Investment cycles back upward into 2026 with growth in the engineering and ICI** sectors that is supported by a global economic recovery.
- Non-residential construction investment ends the forecast period up 7% higher than in 2022.

** industrial, commercial, institutional

Investment



Construction and Maintenance Looking Forward, Construction Investment

Source: Statistics Canada, BuildForce Canada (2023–2032)

* \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Vancouver Island construction industry overview: Employment



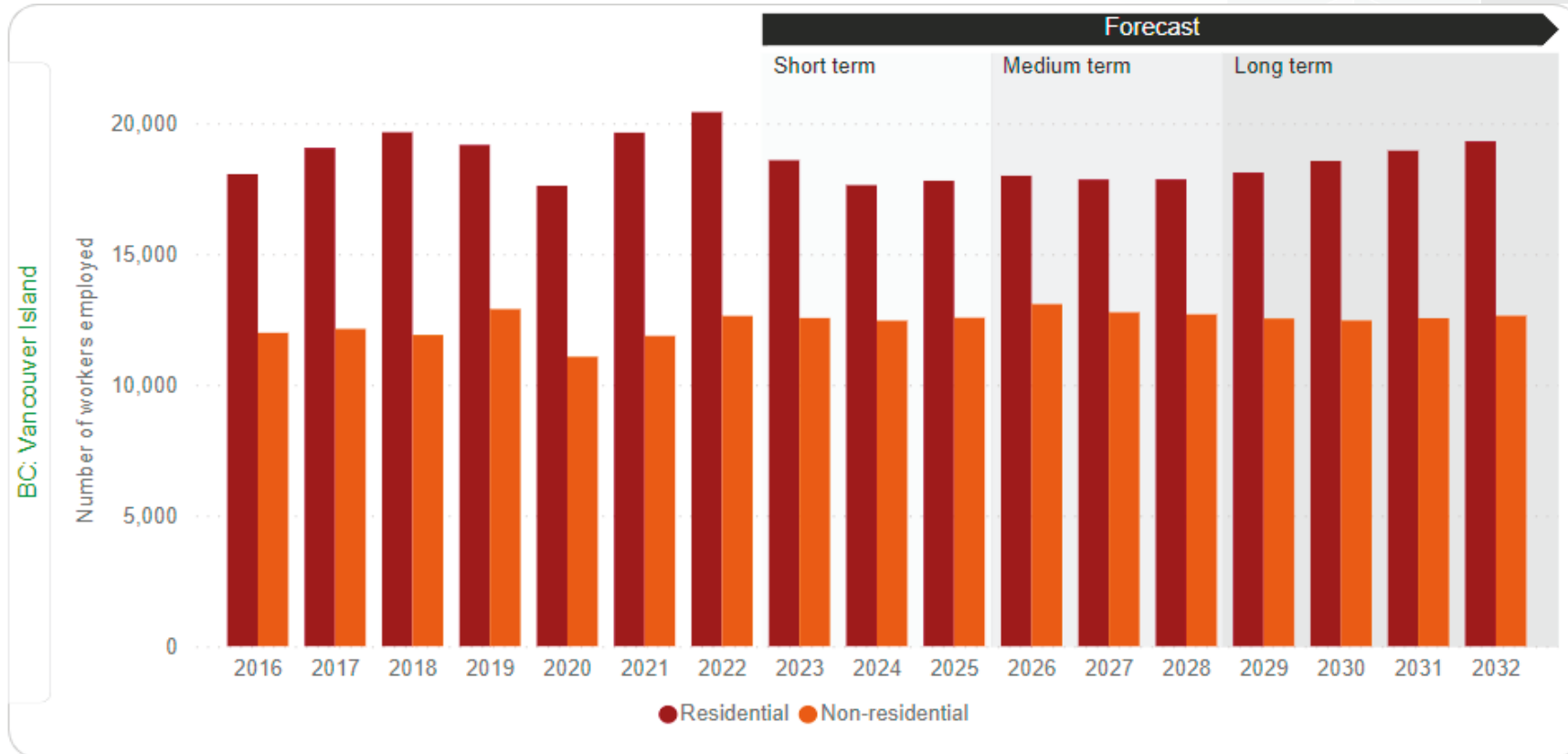
Residential

- Employment reached a peak of more than 20,000 workers in 2022. As interest rates rise and investment slows through the short term, employment is expected to contract by as many as 2,800 workers.
- Growth resumes through the medium term and into the long term, with employment returning to above 19,000 workers by 2032.
- Steady employment gains in renovation and maintenance work only partially offset declines in new-home construction across the forecast period.

Non-residential

- Engineering-related employment steps down between 2023 and 2025 before rising to a forecast peak in 2026. Employment moderates thereafter, contracting by 4% by 2032.
- ICI (industrial, commercial, institutional) employment is also expected to peak in 2026 before moderating as many of the currently known institutional investments in health care and educational services are completed.
- Overall, employment in the non-residential sector is expected to remain relatively stable, with overall employment in 2032 almost identical to 2022 levels.
- Maintenance-related employment – the smallest of the three non-residential construction employment segments – is expected to rise throughout the forecast period.

Total direct trades and occupations



Construction and Maintenance Looking Forward, Employment Change

Source: Statistics Canada, BuildForce Canada (2023-2032)

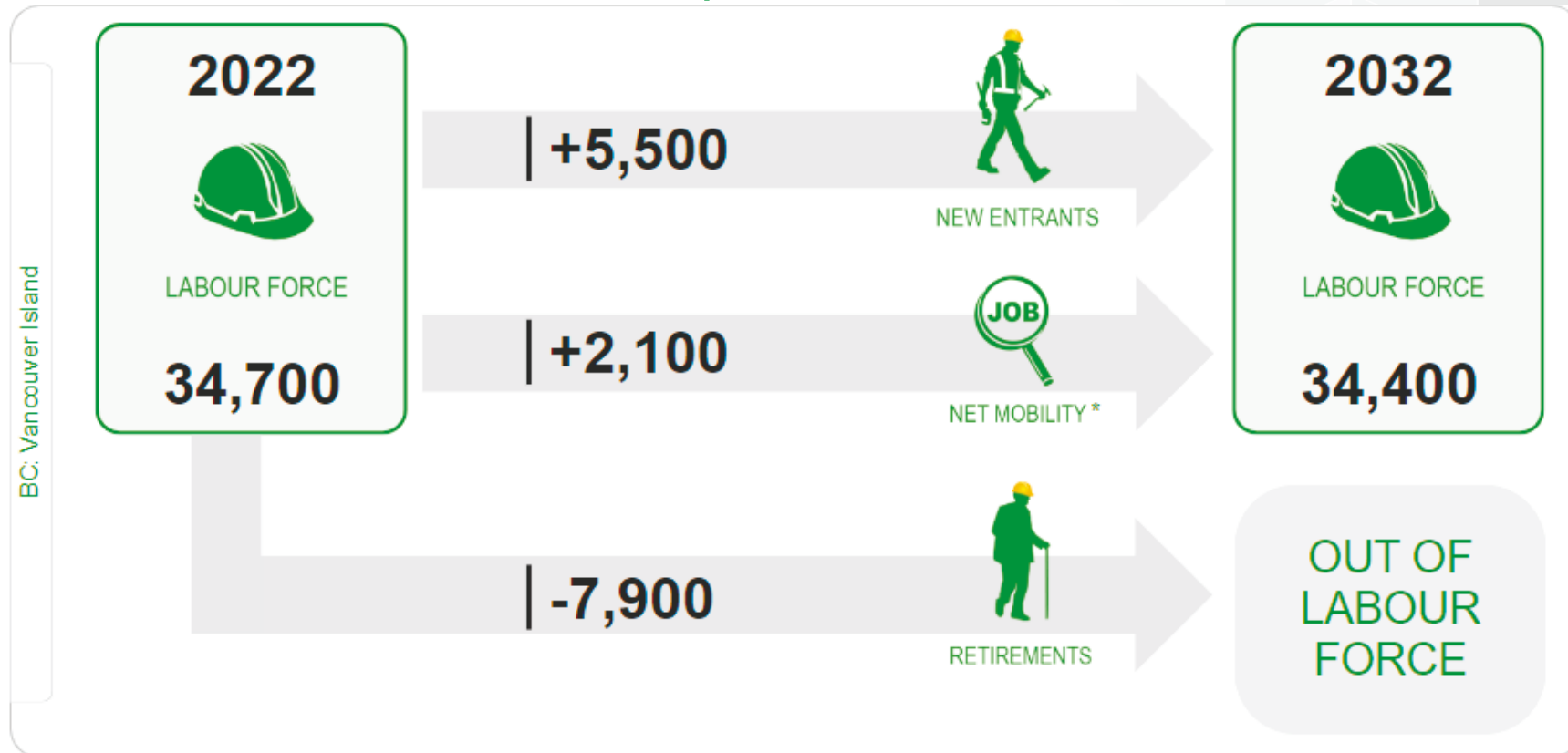
Vancouver Island construction industry overview: Labour force



2023–2032

- Reduced demands will contract the regional construction labour force by 300 workers.
- The retirement of approximately 7,900 workers during the forecast period will increase the overall hiring requirements for the industry to 7,600.
- Based on historical recruitment levels, the industry is expected to add 5,500 workers during the forecast period.
- Unless recruitment increases, the regional sector may need to add as many as 2,100 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



Construction and Maintenance Looking Forward, Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.



Residential construction

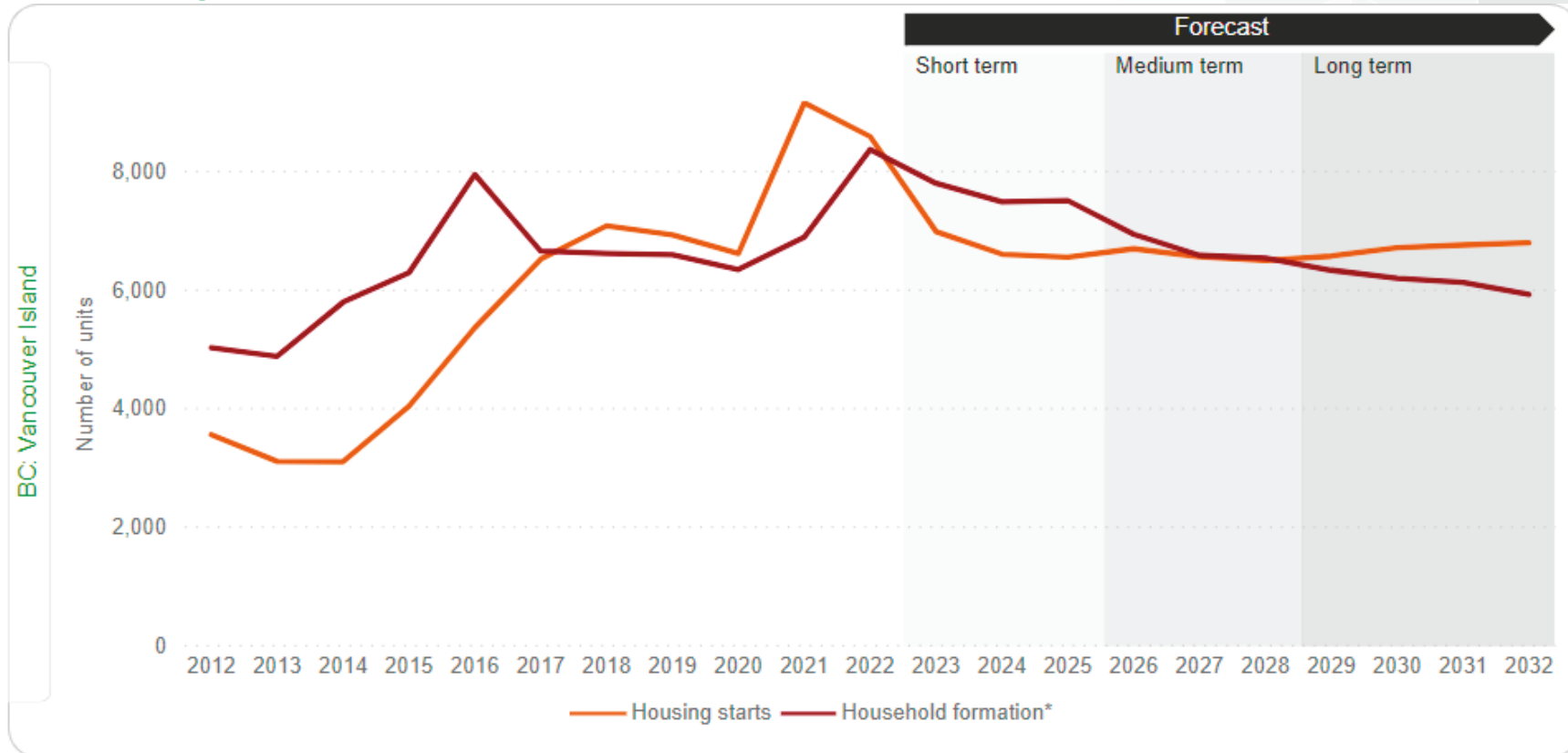
- Housing starts and household formations
- Investment
- Housing starts by structure type
- Employment
- Labour market rankings

Vancouver Island residential construction



- Historically low interest rates helped to bring housing starts to a record high of above 9,100 units in 2021. As interest-rate increases began to take effect in the second half of 2022, start levels stepped down, reaching a still-high level of nearly 8,600 units.
- Starts will step down again – by more than 18% – in 2023 as the market further adjusts to high lending rates. From that point forward to the end of the forecast period, they remain consistently between 6,500 and 6,800 units.
- Household formations* also reached a new high of more than 8,300 units in 2022, supported by the ending of pandemic-related restrictions and a return to in-person learning among temporary residents.
- Formation levels will remain elevated through the forecast period, given new federal immigration levels.
- Housing starts catch up to formation levels by 2027 and begin to exceed formations after 2028.

Housing starts and household formations



Construction and Maintenance Looking Forward, Residential Construction

Source: CMHC, BuildForce Canada (2023-2032)

* **Household formation** refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.

Vancouver Island residential construction



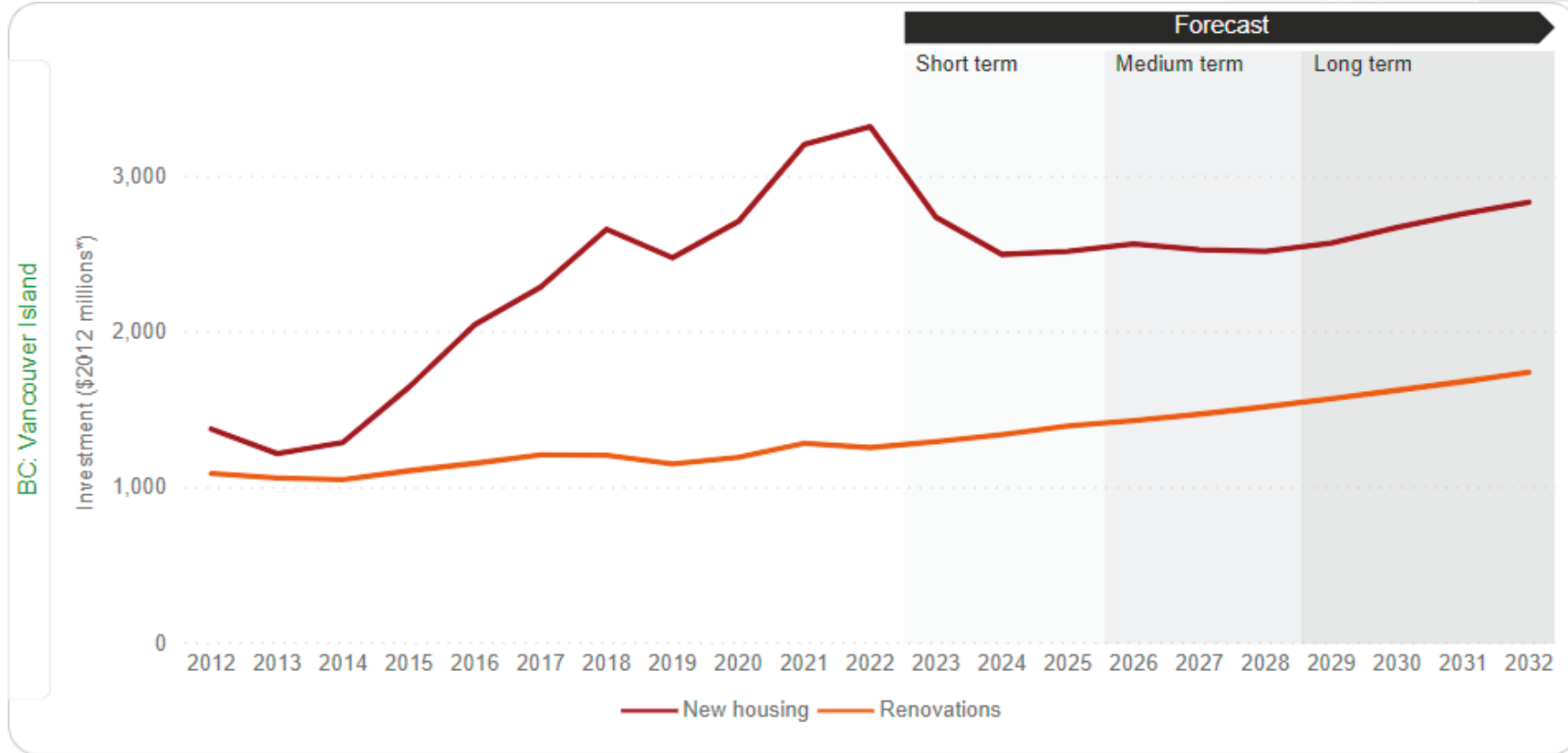
New housing

- New-housing investment will come off a peak as starts decline due to rising interest rates in the short term.
- As consumers adjust their expectations to higher interest rates, and population growth increases pressure for new homes, an upward cycle is expected commencing in 2024, which extends through 2032 but remains well below the 2022 peak.
- Investment contracts by 14% across the forecast period.

Renovations

- The aging of the housing stock and higher levels of migration have supported regular increases in renovation investment levels.
- Spending rises by between 2.5% and 4% continuously through the forecast period, adding as much as 39% over 2022 levels by 2032.
- Growth in the latter years of the forecast period is supported by an aging population that prefers to remain in their homes.

Investment



 [Construction and Maintenance Looking Forward, Residential Investment](#)

Source: Statistics Canada, BuildForce Canada (2023-2032)

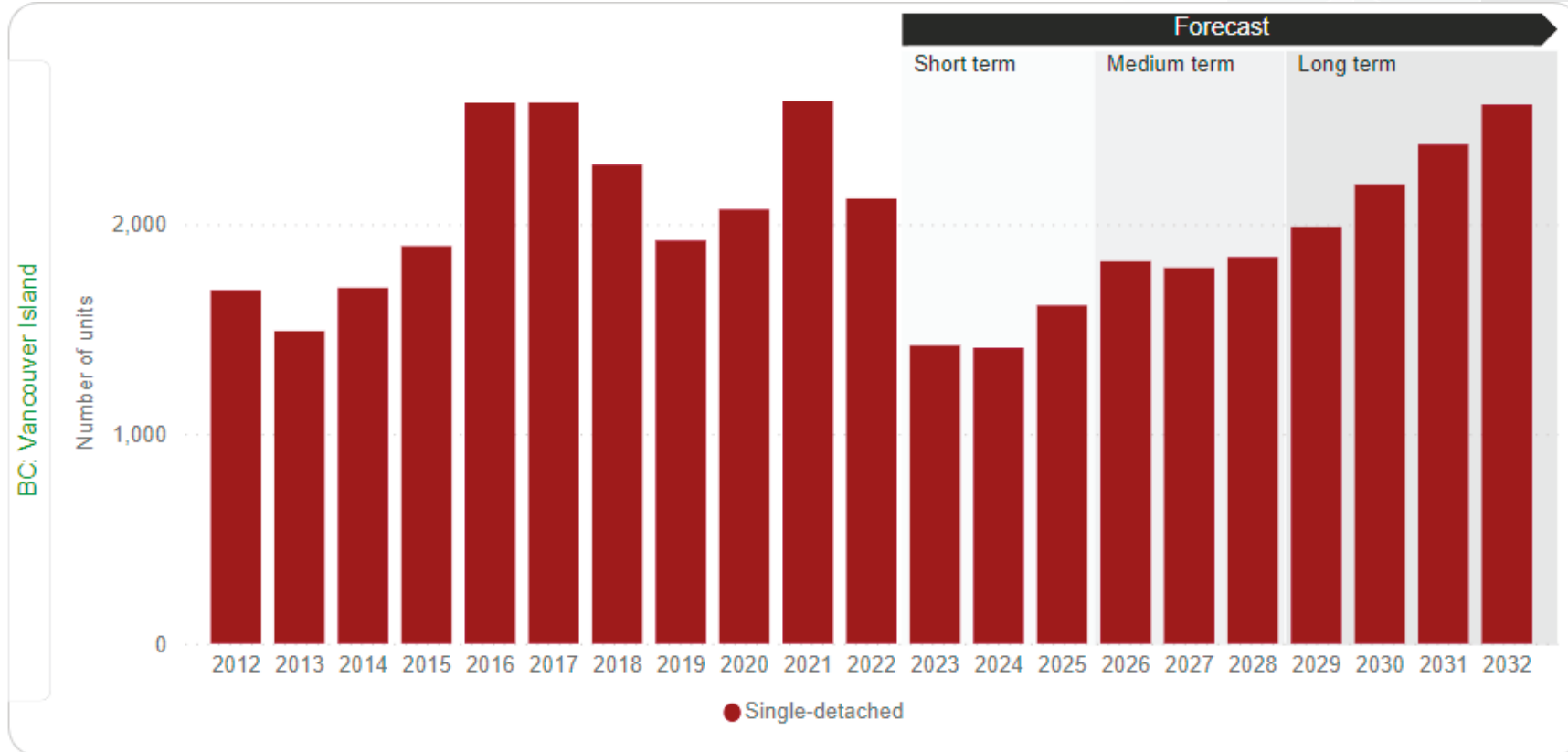
* **\$2012 millions** indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Vancouver Island residential construction



- Single-detached* unit construction was elevated in 2021 and 2022 but commenced declining in late 2022.
- As these are more relatively expensive units, another decline in demand – of as much as 33% – is expected in 2023 due to rising interest rates.
- As interest rates are relaxed and economic growth accelerates in 2024, demand for singles should increase to 2027.
- The longer-run demand forecast is supported by trends in the population age structure. The general population is aging, and a good share of international migrants are expected to be over 35 years of age. Both domestic and international migrants to the province are expected, due to their age, to have higher incomes and more wealth to support the demand for singles.
- With those trends in effect, single-detached formations will continue to experience upward pressure from the age shift despite population growth slowing over the decade.
- Single-detached starts are expected to reach 2,570 units in 2032 – nearly 450 (+21%) above 2022 levels.

Housing starts by structure type (single-detached)



Construction and Maintenance Looking Forward, Single Housing Starts

Source: CMHC, BuildForce Canada (2023-2032)

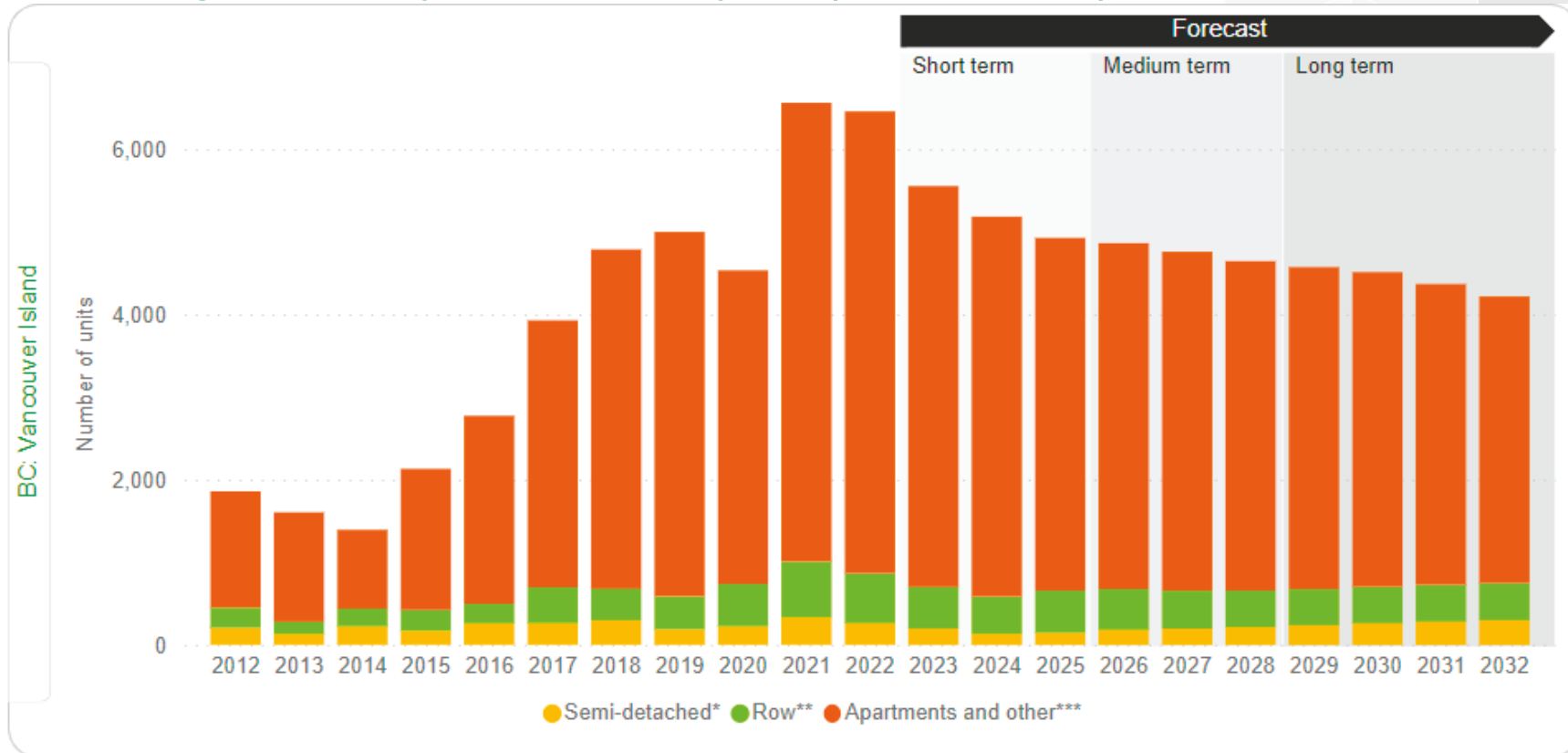
* **Single-detached (single)** refers to a building containing only one dwelling unit that is completely separated on all sides from any other dwelling or structure.

Vancouver Island residential construction



- Multi-unit construction was well elevated in 2022 but weakened in the second half, which will likely bring totals for the year in below the 2021 peak.
- Apartment*** units have recently dominated multi-unit construction types, increasing to nearly two thirds of all multi-units constructed in 2022. By the end of the forecast period, they contract to just about 50%.
- Row** housing supplies, meanwhile, dropped from their 2021 peak, and will decline by 26% by 2032.
- Since 2016, the province's average rental vacancy rate fell below 3% – which tends to signal the need for new rental units, as 3% is seen as a balanced market rate – and in late 2021, the rate declined to about 1%.
- Demand for multi-unit construction will decline across the forecast period, in parallel with the rise in demand for single-family homes. The market for multi-unit rentals will likely be sustained through the forecast period by international migrants, who tend to rent before buying.

Housing starts by structure type (multi-units)



Construction and Maintenance Looking Forward, Multiples Housing Starts

Source: CMHC, BuildForce Canada (2023-2032)

* **Semi-detached** and **semi** refer to one of two dwellings located side-by-side in a building, adjoining no other structure, and separated by a common or party wall extending from ground to roof.

** **Row** refers to a one-family dwelling unit in a row of three or more attached dwellings separated by a common or party wall extending from ground to roof.

*** **Apartments and other** includes all dwellings other than those described above, including structures commonly known as stacked townhouses, duplexes, triplexes, double duplexes, and row duplexes.

Vancouver Island residential construction: Employment



- The rapid rise in new-housing construction has been a significant driver of construction employment growth.

New housing

- New-housing-related employment reached a peak of nearly 13,600 in 2022, driven by strong consumer demand. Employment is expected to moderate almost continuously through 2028.

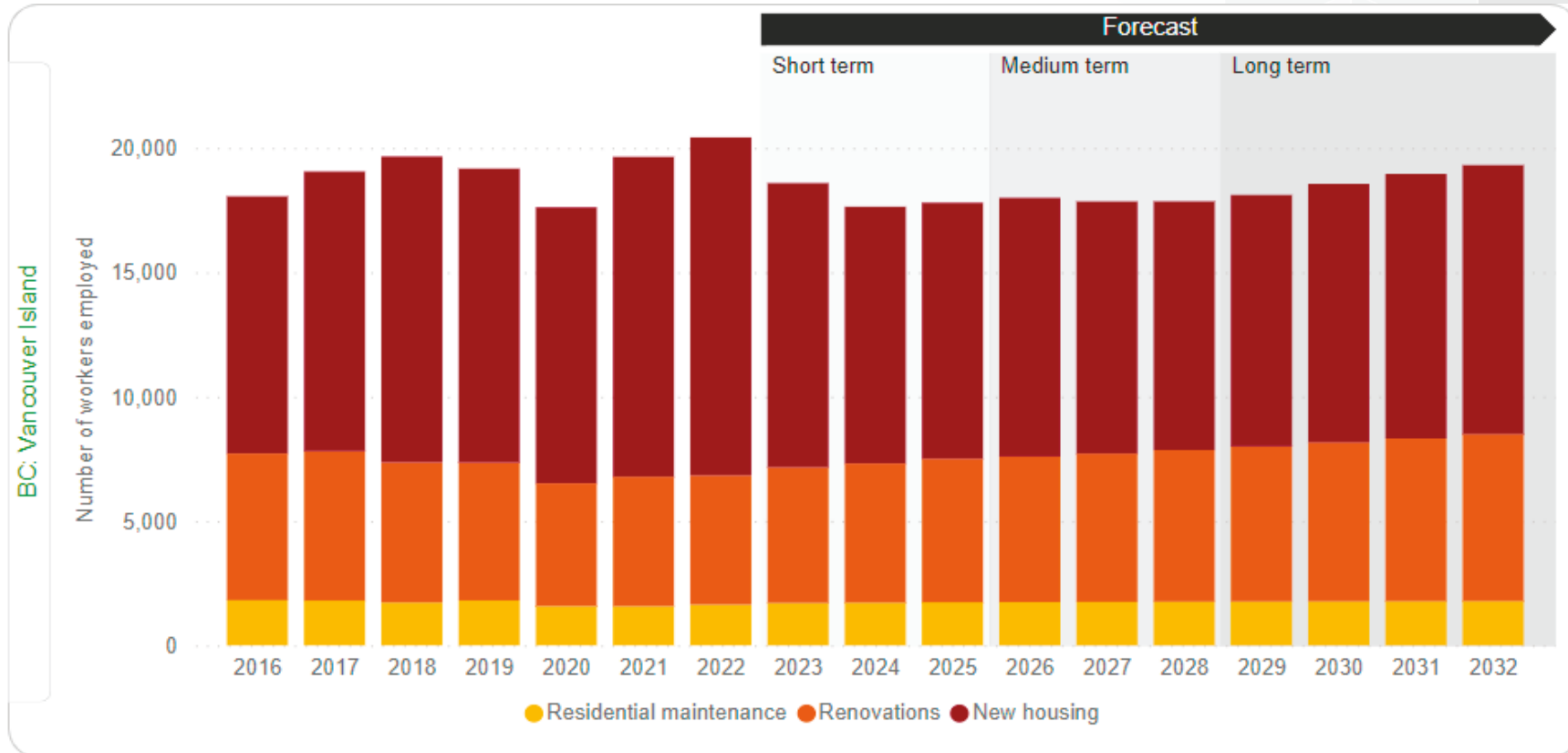
Renovations

- Renovation-related employment is expected to continue to rise throughout the forecast period, on the strength of its comparative affordability.
- Maintenance employment – the smallest segment of the residential employment picture – is expected to increase continuously to 2032.

Total

- At the end of the decade:
 - New housing is down by 2,800 workers (-20%).
 - Renovation is up 1,500 workers (+29%).
 - Maintenance is up 140 workers (+9%).
- Overall, residential employment is expected to contract by 1,100 workers (-5%) over the forecast period from 2022 levels.

Total direct trades and occupations



Construction and Maintenance Looking Forward, Residential Employment

Source: BuildForce Canada (2023-2032)

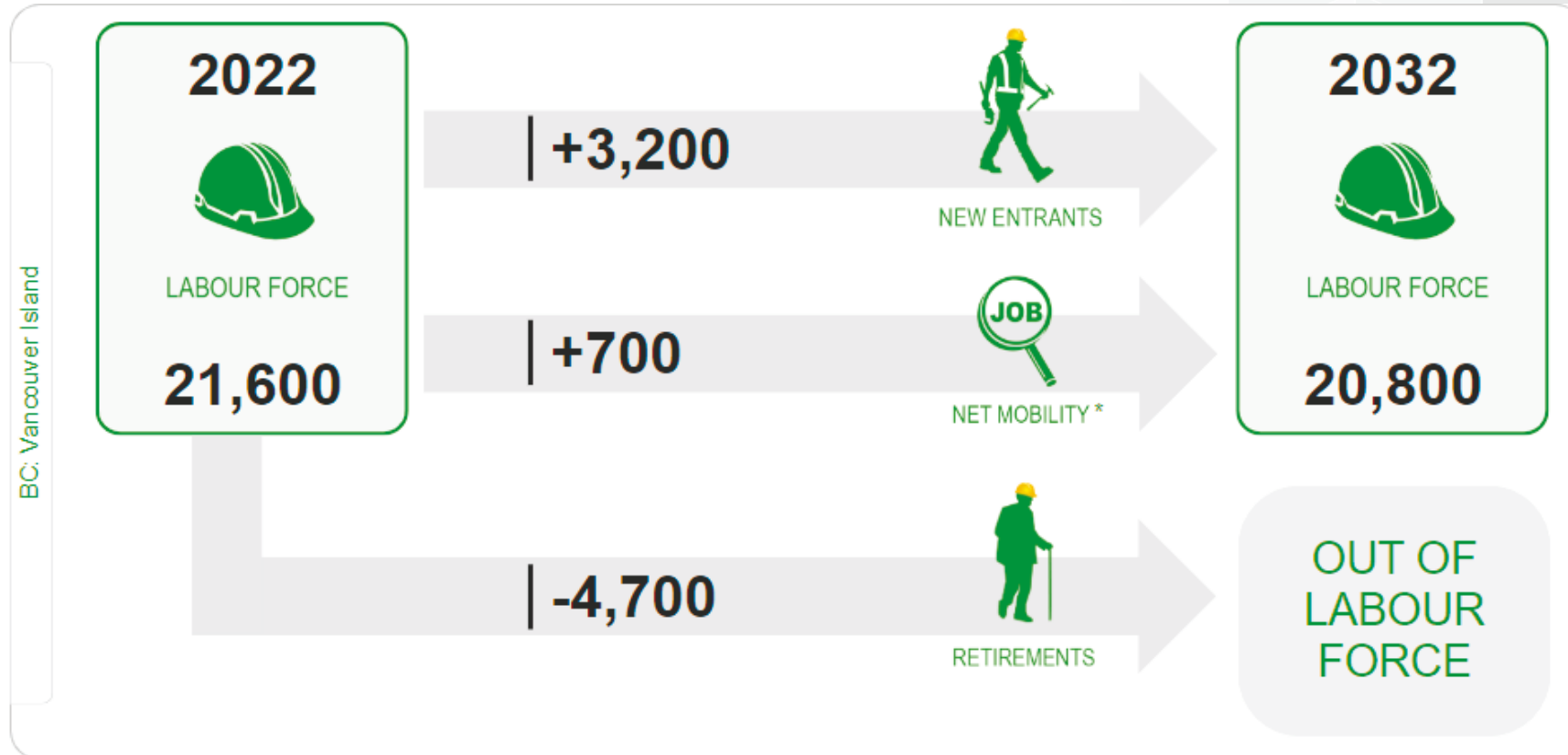
Vancouver Island residential construction: Labour force



2023–2032

- Reduced demands will contract the regional residential construction labour force by 800 workers.
- The retirement of approximately 4,700 workers during the forecast period will increase the overall hiring requirements for the industry to 3,900.
- Based on historical recruitment levels, the industry is expected to add 3,200 workers during the forecast period.
- Unless recruitment increases, the regional sector may need to add as many as 700 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



BC: Vancouver Island Construction and Maintenance Looking Forward, Residential Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.



- While BuildForce tracks market conditions for 34 construction trades and occupations, labour market rankings are limited to **19 residential trades and occupations**; rankings for smaller trades and occupations (<100 workers) are suppressed due to statistical reliability.
- The market rank indicator runs from “1” (excess supply; risk of losing workers from the industry) to “5” (severe challenges recruiting construction workers in the local market).
- A rank of “3” refers to balanced market conditions, where qualified workers are generally available. There could be tighter conditions during peak seasons, however, due to coinciding major projects and/or maintenance work, which could limit the availability of workers.

Labour market rankings

1

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.

2

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.

3

The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.

4

Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.

5

Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

Vancouver Island residential construction



- The surge in housing starts in 2022 created exceptionally tight labour markets throughout the year.
- Labour market conditions are expected to moderate in 2023 and again in 2024, with most sectors possibly experiencing over-supply later in the year.
- Thereafter, labour market conditions are expected to remain balanced, based on currently known demands.

Selected trades and occupations

BC: Vancouver Island

Trades and occupations - Residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Bricklayers	4	3	2	3	3	3	3	3	3	3	3
Carpenters	4	3	2	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	4	3	2	3	3	3	3	3	3	3	3
Construction managers	4	3	2	3	3	3	3	3	3	3	3
Contractors and supervisors	4	3	2	3	3	3	3	3	3	3	3
Electricians	4	3	2	3	3	3	3	3	3	3	3
Floor covering installers	4	3	2	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	2	3	3	3	3	3	3	3	3

[Construction and Maintenance Looking Forward, Residential Rankings](#)

Continued on next slide

Vancouver Island residential construction



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- Labour market conditions are expected to moderate in 2023 and again in 2024, with most sectors possibly experiencing over-supply later in the year.
- Thereafter, labour market conditions are expected to remain balanced, based on currently known demands.

Selected trades and occupations

BC: Vancouver Island

Trades and occupations - Residential	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Home building and renovation managers	4	3	2	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	4	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	3	2	3	3	3	3	3	3	3	3
Plumbers	4	3	2	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	4	3	2	3	3	3	3	3	3	3	3
Tilesetters	4	3	2	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	3	2	3	3	3	3	3	3	3	3
Truck drivers	4	3	2	3	3	3	3	3	3	3	3

[Construction and Maintenance Looking Forward, Residential Rankings](#)



Non-residential construction

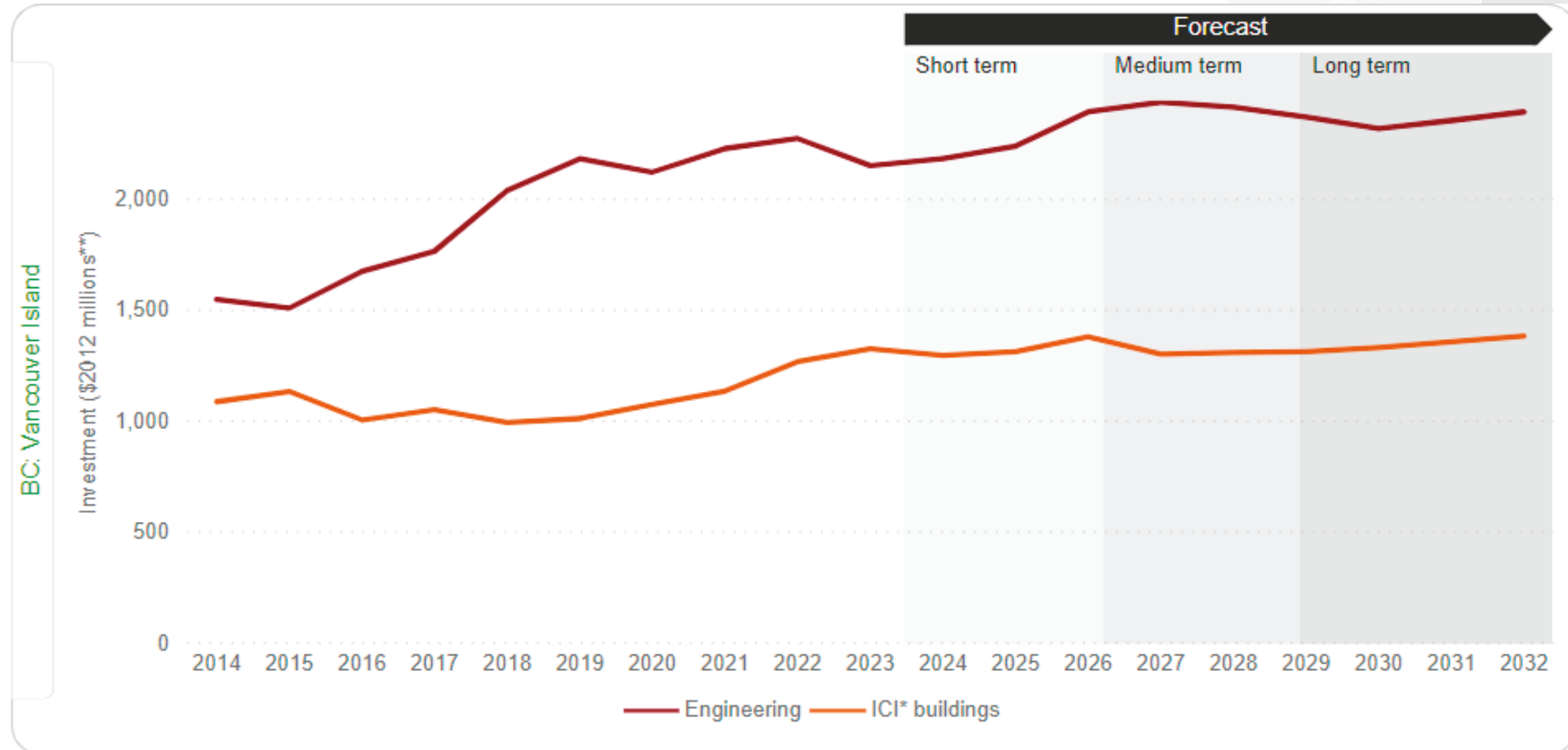
- Investment
- Employment
- Labour market rankings

Vancouver Island non-residential construction



- Engineering investment is coming off a high in 2022, and is expected to see a slight pullback in 2023. Further spending in heavy industrial, public transit, highway, and bridge projects keeps investment levels elevated into the medium term and into the early 2030s.
- Engineering investment rises to a forecast peak in 2027 before reaching 5% above 2022 levels by 2032.
- ICI* spending is elevated coming into the forecast period on the strength of a long list of education and health care projects, as well as further investment in commercial-building construction.
- ICI spending reaches a high in 2026 before pulling back and then beginning another upward curve to 2032. By the end of the forecast period, spending adds 9% over 2022 levels.
- Total non-residential investment increases by 7% over 2022 levels by 2032.

Investment



Construction and Maintenance Looking Forward, Non-residential Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: Non-residential construction excludes the value of machinery and equipment.

* industrial, commercial, institutional

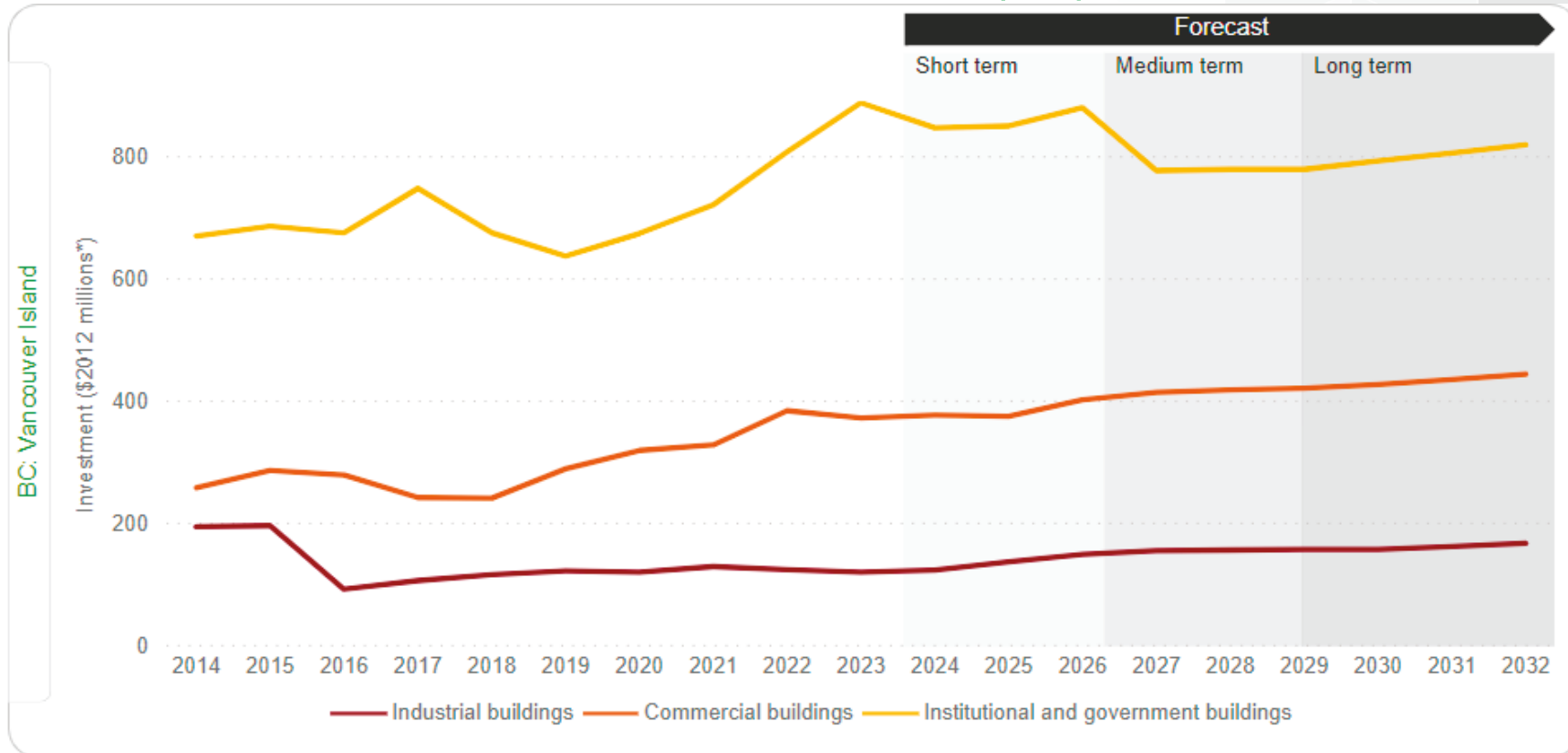
** \$2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Vancouver Island non-residential construction: Investment



- **Industrial-building** investment saw a slight decline in 2022 with another expected in 2023 in response to slowing global growth. Spending picks up in 2024 and through to the end of the forecast period, adding 35% by 2032. The lower Canadian dollar is expected to drive increased manufacturing activity in the region.
- **Commercial buildings** is expected to continue increasing across the forecast period, with growth in the hospitality and tourism sector, and in response to the region's growing population.
- **Institutional and government** investment rises to peak activity in 2023, with work ramping up on the Cowichan Secondary School and the Cowichan District Hospital replacement. Investment is expected to recede with the completion of the hospital in 2026, before a later wave of investment carries spending to just above (+1%) 2022 levels

Industrial, commercial, and institutional (ICI)



Construction and Maintenance Looking Forward, Buildings Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: Non-residential construction excludes the value of machinery and equipment.

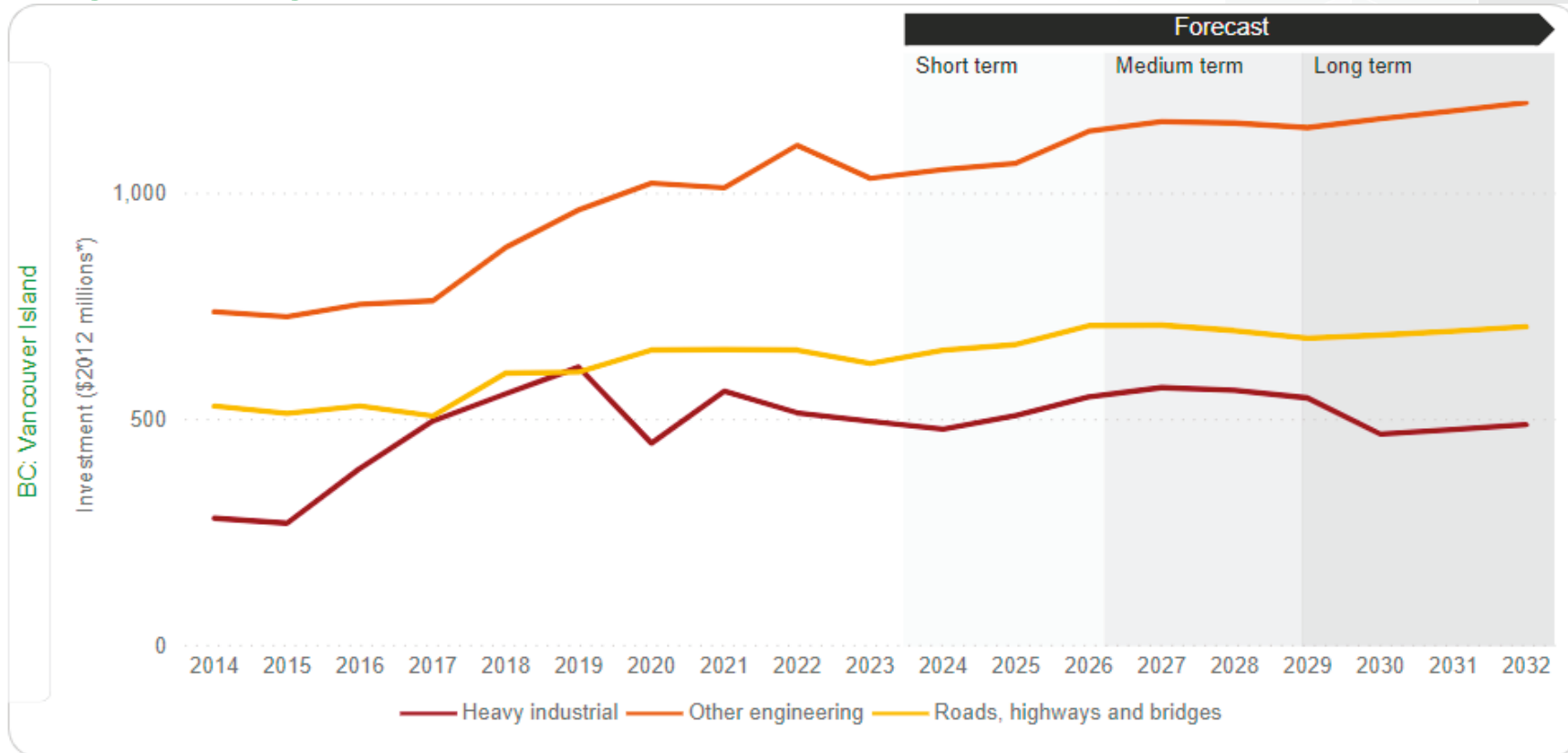
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Vancouver Island non-residential construction: Investment



- **Heavy-industrial engineering** investment is expected to contract into 2024 with the completion of key water infrastructure projects. Investment then cycles back up through 2027 in line with population growth before contracting to 5% below 2022 levels by 2032.
- **Other-engineering** investment is expected to step back off its 2022 peak, as global economic conditions temper growth in the manufacturing sector. Investment trends back upward after 2023, as restored global growth renews manufacturing spending and increases expenditures to develop transportation infrastructure.
- **Roads, highways, and bridges** investment has risen in line with the region's growing population. The A/B Jetty Recapitalization Project is expected to carry investment through to 2024. Given the population projected for Vancouver Island, further expansion of the region's core infrastructure will be required to 2032.

Engineering



Construction and Maintenance Looking Forward, Engineering Investment

Source: Statistics Canada, BuildForce Canada (2023-2032)

Note: **Engineering construction** excludes the value of machinery and equipment. **Heavy-industrial engineering** includes oil and gas, mining, electric power, wastewater, gas distribution, etc. **Other engineering** includes pipelines, transit systems, tunnels, and other civil engineering.

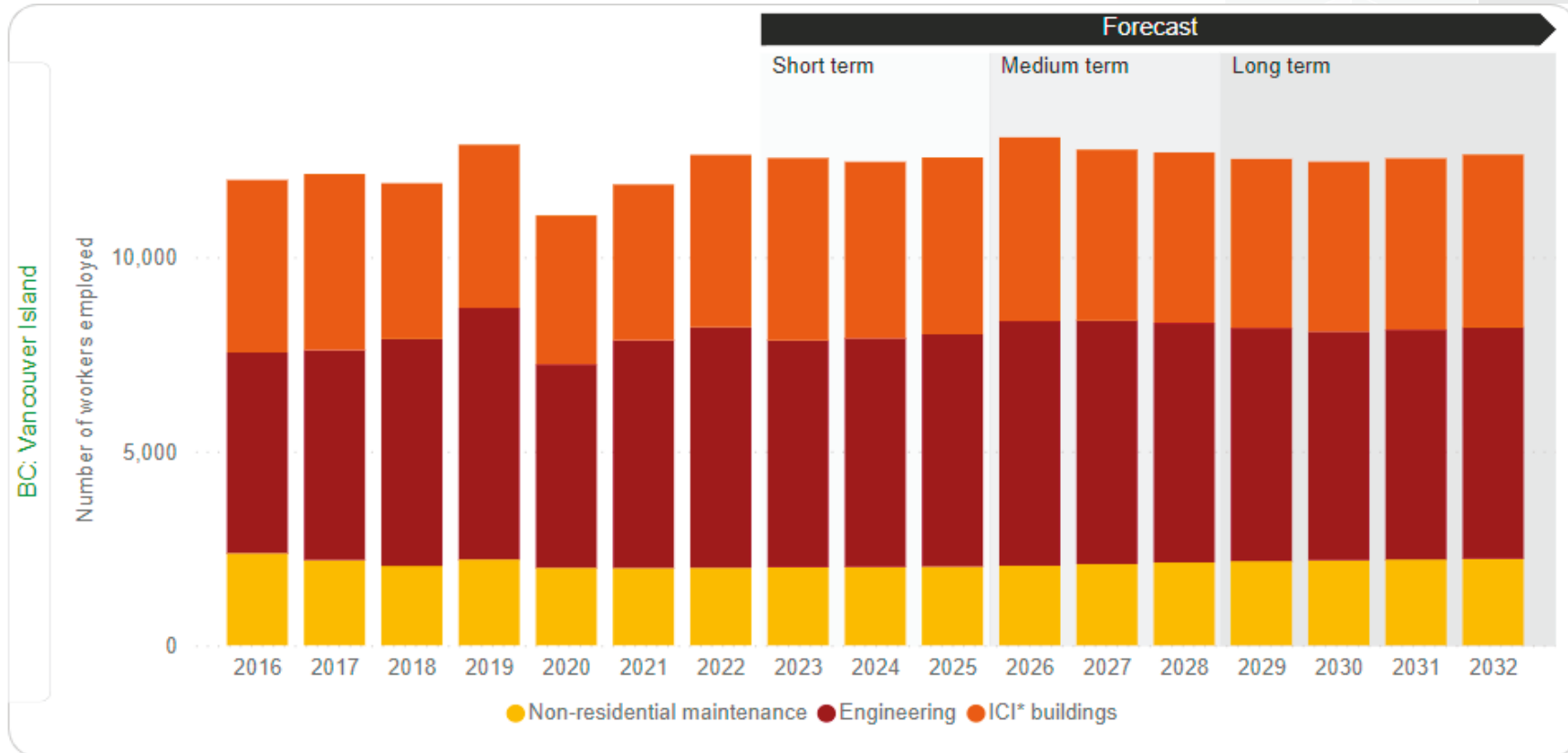
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Vancouver Island non-residential construction: Employment



- Since 2020, employment has risen steadily due to investments in major institutional projects and road and highway projects.
- Engineering**-related employment reached a peak in 2022, supported by work on the region's various transit and water-related projects. Employment fluctuates through the remainder of the forecast period with the cycling up and down of various projects.
- ICI*** employment grew to a peak in 2023 with demands created by major health care and school projects. Employment contracts to 2026 before reaching another peak, and then falling through the end of the forecast period.
- Maintenance** employment grows continuously through the forecast period.
- Over the forecast period, non-residential employment should remain unchanged from 2022 levels.
 - ICI buildings is unchanged (0%).
 - Engineering is down by 240 workers (-4%).
 - Maintenance is up by 230 workers (+12%).

Total direct trades and occupations



Construction and Maintenance Looking Forward, Non-residential Employment

Source: BuildForce Canada (2023-2032)

* industrial, commercial and institutional

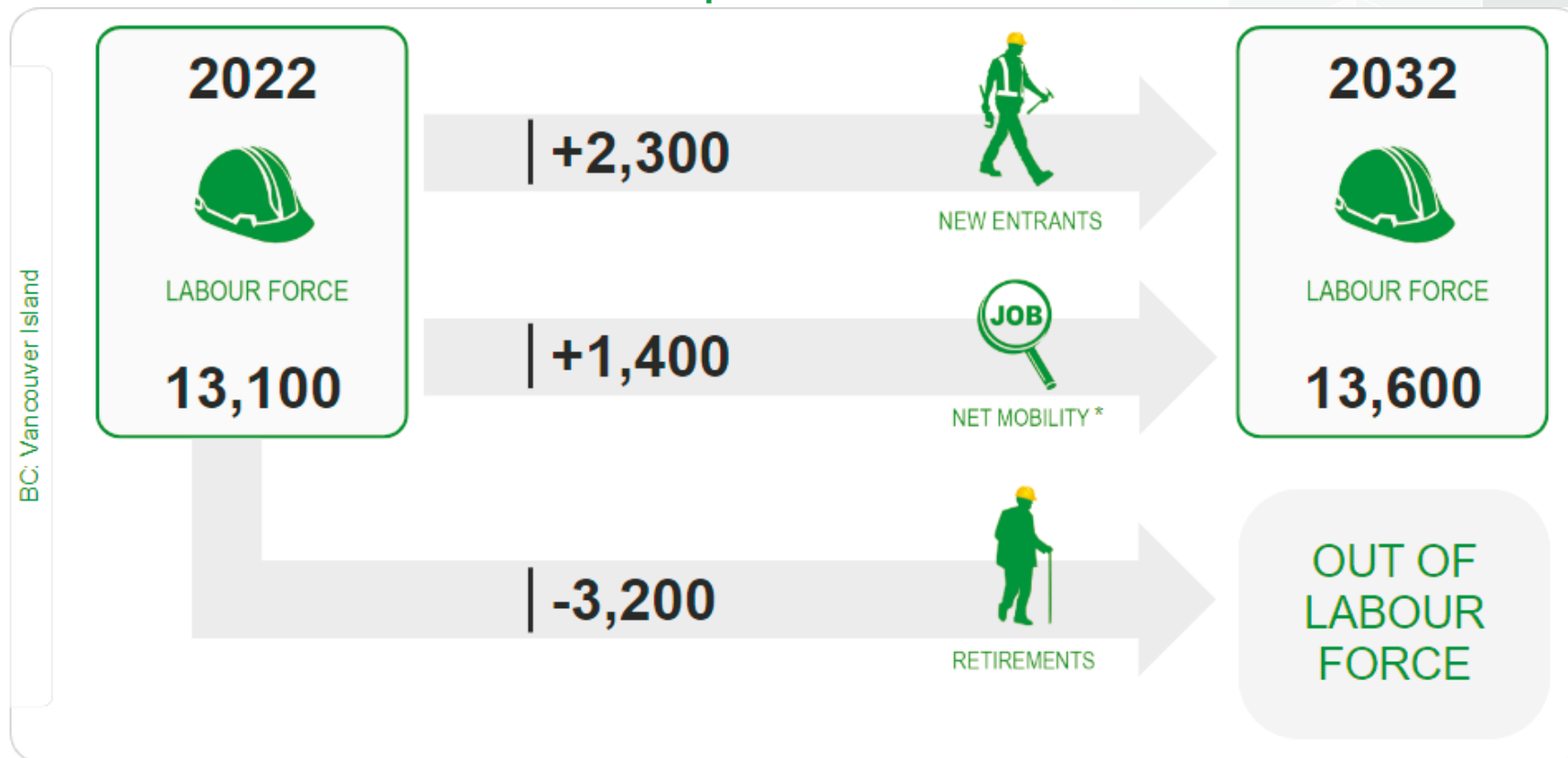
Vancouver Island non-residential construction: Labour force



2023–2032

- Rising demands will require the regional non-residential labour force to increase by 500 workers.
- The retirement of approximately 3,200 workers during the forecast period will increase the overall hiring requirements for the industry to 3,700.
- Based on historical recruitment levels, the industry is expected to add 2,300 workers during the forecast period.
- Unless recruitment increases, the regional sector may need to add as many as 1,400 additional workers:
 - through the additional recruitment and training of youth
 - through the additional recruitment of individuals from equity-deserving groups traditionally under-represented in the construction sector
 - from the construction labour forces of neighbouring provinces with higher levels of unemployment
 - from other industries in the province employing workers with the skill sets required by the industry
 - from outside the country through permanent immigration

Total direct trades and occupations



BC: Vancouver Island Construction and Maintenance Looking Forward, Non-residential Labour Force Change

Note: Due to rounding, numbers may not add up to the totals indicated.

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- While BuildForce tracks market conditions for 34 construction trades and occupations, labour market rankings are limited to **24 non-residential trades and occupations**; rankings for smaller trades and occupations (<100 workers) are suppressed due to statistical reliability
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- A rank of “3” refers to balanced market conditions, where qualified workers are generally available. There could be tighter conditions during peak seasons, however, due to coinciding major projects and/or maintenance work, which could limit the availability of workers.

Labour market rankings



Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.



Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.



The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.



Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.




Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.



- Employment demand was exceptionally strong in 2022, placing significant pressure on construction labour markets.
- As some of this work carries over into 2023, pressures on the labour force are expected to moderate slightly.
- Labour market conditions are expected to balance thereafter, with some trades and occupations potentially being over-supplied in 2027.

Selected trades and occupations



 [Construction and Maintenance Looking Forward, Non-residential Rankings](#)

Continued on next slide 



- Employment demand was exceptionally strong in 2022, placing significant pressure on construction labour markets in the province.
- As some of this work carries over into 2023, pressures on the labour force are expected to moderate slightly.
- Labour market conditions are expected to balance thereafter, with some trades and occupations potentially being over-supplied in 2027.

Selected trades and occupations

Conclusion: British Columbia



2023–2032

- British Columbia has been one of the busiest construction markets in Canada for several years, with major non-residential projects stacked on top of a booming residential sector.
- Rising interest rates slow housing starts in 2023 and 2024, but as consumers adjust to higher borrowing costs, investment levels are expected to rise again to accommodate the higher levels of migration to the province.
 - As investment in new-home construction recedes from its peak, renovation investment trends up across the forecast period and pushes residential investment higher than 2022 levels.
 - By the end of the period, residential construction employment is up 6%, with significant gains in renovation and maintenance work offsetting declines in new-home construction.
- Growth in non-residential construction investment has been on the rise for the last several years, driven by a long list of major heavy-industrial, public transit, education, hospital, highway, and bridge projects.
 - Activity is expected to peak in 2023 and is sustained into 2024. Investment fluctuates across the period in line with the timing of major projects, but remains elevated.
 - At peak, tight labour market conditions translate into significant recruiting challenges that carry into 2024 for some trades. Employment recedes modestly to 2029 but ends the forecast period up 2% (+1,400 workers) compared to 2022, as renewed industrial, commercial, and institutional construction offsets engineering declines.
- The industry faces the added challenges of an aging workforce and the expected retirement of more than 38,000 workers, or 20% of the current labour force, over the forecast period.

Our thanks to...



The production of *Construction and Maintenance Looking Forward 2023–2032* would not have been possible without the valuable input from the following organizations:

- BC Building Trades Council
- BC Hydro
- BC Ministry of Advanced Education and Skills Training
- BC Regional Council of Carpenters
- BC Road Builders and Heavy Construction Association
- British Columbia Construction Association
- British Columbia Insulation Contractors Association
- Canada's Building Trades Unions
- Canadian Construction Association
- Canadian Home Builders' Association
- Canadian Home Builders' Association – British Columbia
- CLAC
- Construction Foundation of British Columbia
- Construction Labour Relations Association of BC
- Construction, Maintenance and Allied Workers Canada
- Defence Construction Canada
- Fluor Canada Ltd.
- Industry Training Authority
- Infrastructure Canada
- LNG Canada
- Mechanical Contractors Association of BC
- National Construction Council
- Northern Regional Construction Association
- PCL Constructors Inc.
- Progressive Contractors Association of Canada
- Roofing Contractors Association of British Columbia
- Service Canada – BC
- Shell Canada
- Southern Interior Construction Association
- Urban Development Institute
- Vancouver Island Construction Association
- Vancouver Regional Construction Association



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