

BRITISH COLUMBIA

HIGHLIGHTS 2023-2032

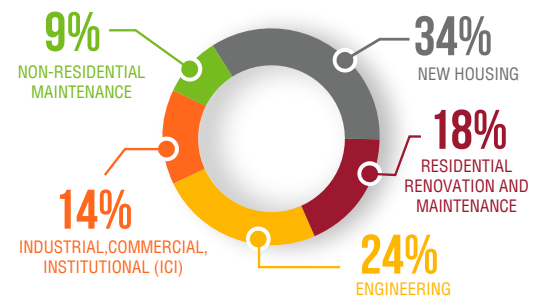
British Columbia's construction market enjoyed strong growth in 2021 and 2022, with investment levels in its residential and non-residential sectors both rising to peaks. The outlook across the remainder of the near term calls for contractions, with the housing sector affected by rising interest rates,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

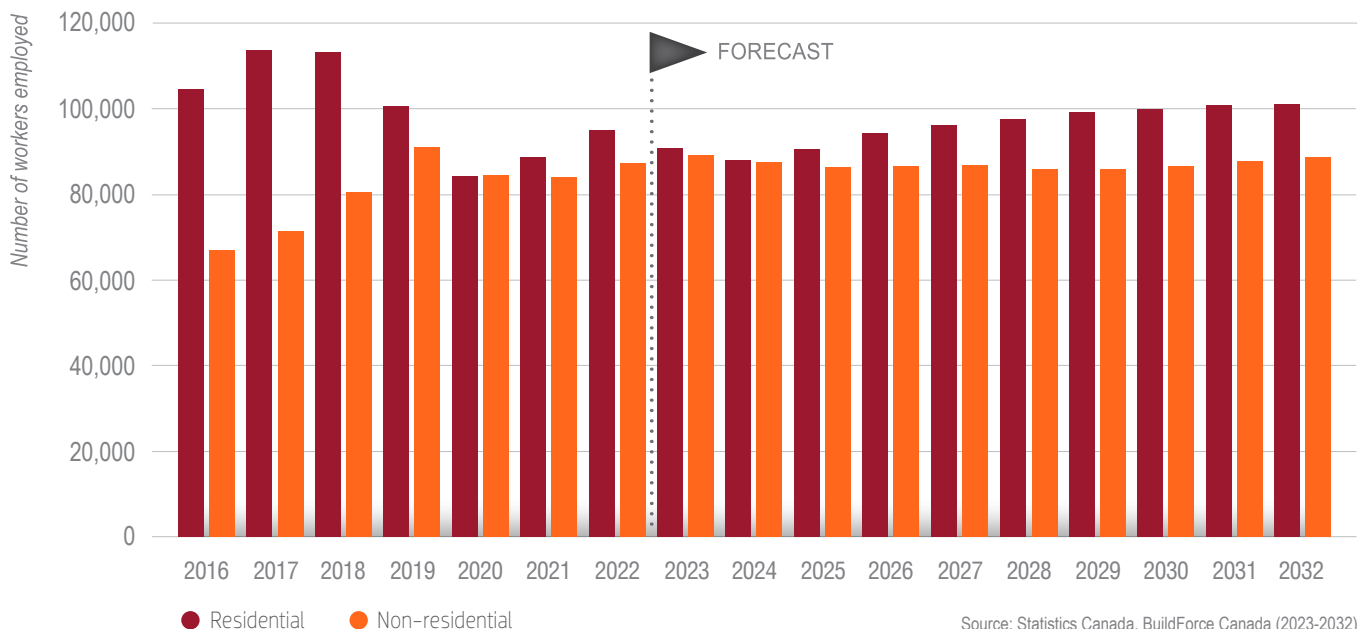
Activity in the province’s non-residential construction sector has been supported over several years by an influx of major heavy-industrial, public-transit, education, hospital, highway, and bridge projects, as well as a recovering commercial-building component. The ebb and flow of the various projects 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.

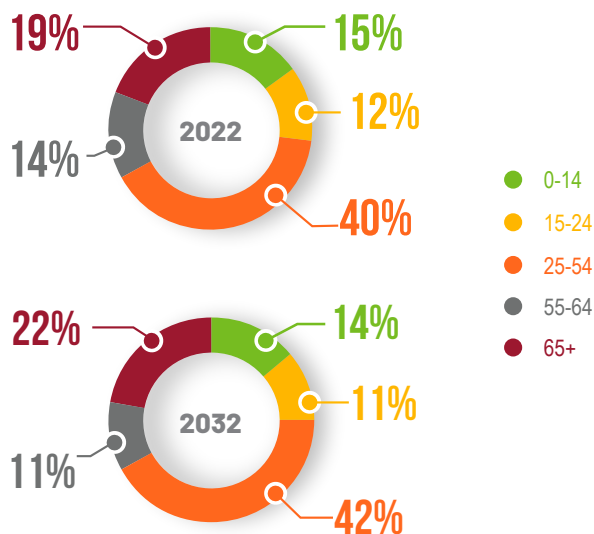
British Columbia is considered a relatively older province. Its natural rate of population growth¹ has been zero or negative since 2022, when the number of deaths equalled or exceeded births in the province. This is due in part to an older population base, and families having fewer children than past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

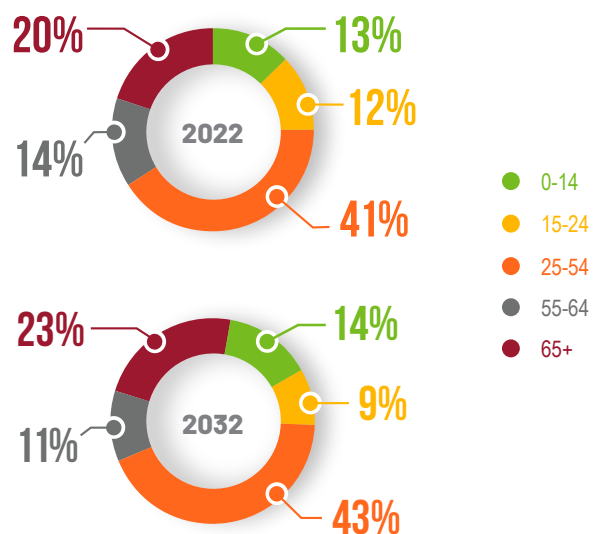
This increase in the number of international migrants in their prime working-age and child-bearing years will put upward pressure on fertility rates in the province and help to sustain British Columbia's natural rate of population growth near or above zero. The increase will also help to grow the province's 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

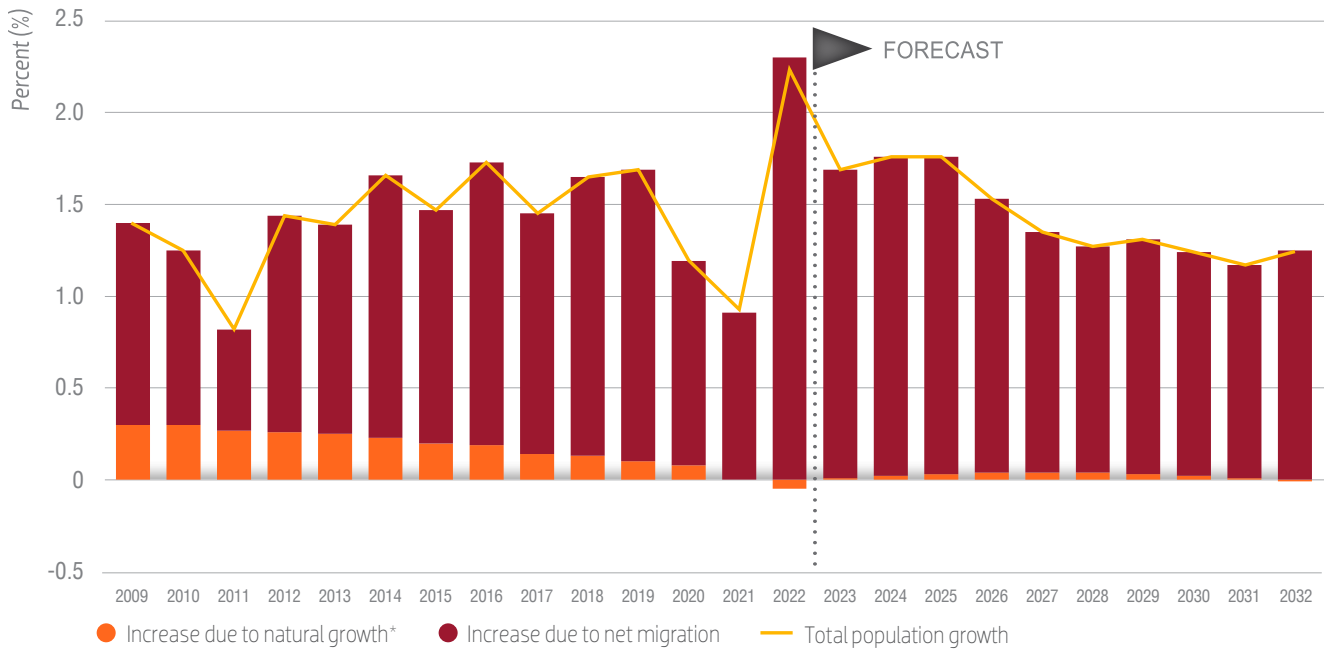
Figure 3: Population age distribution, British Columbia



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,

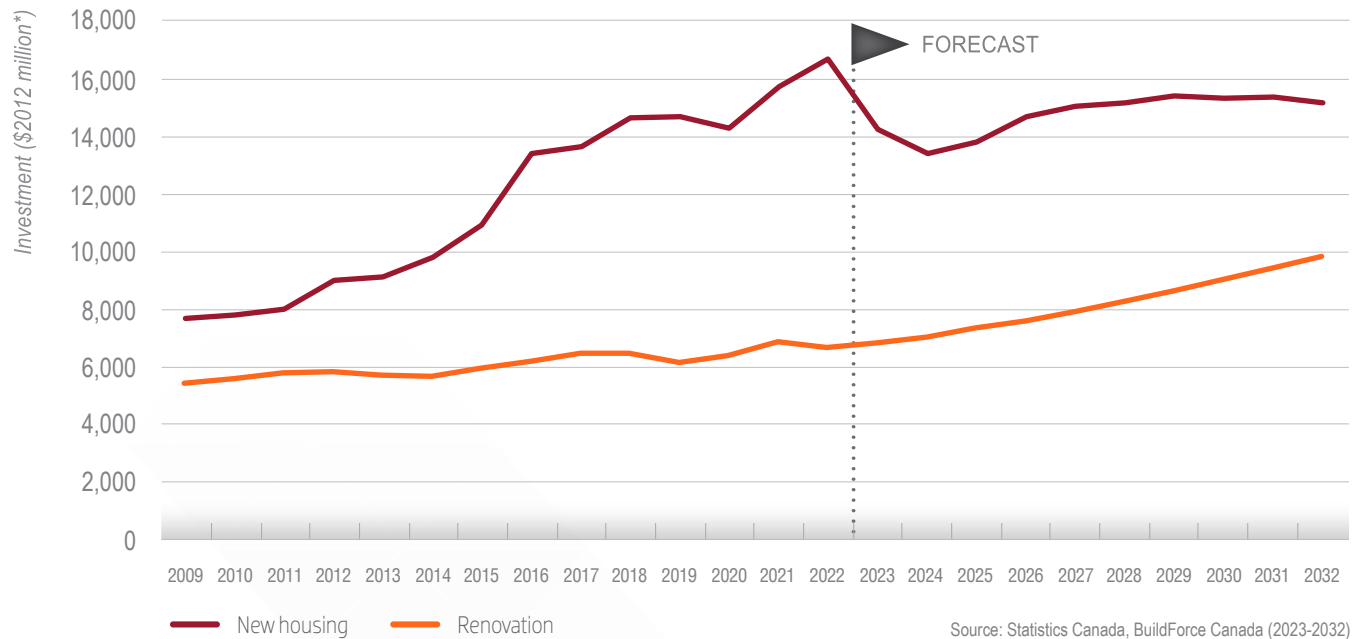
as well as from individuals buying into more mature real estate markets and updating these purchases to their needs and tastes.

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.

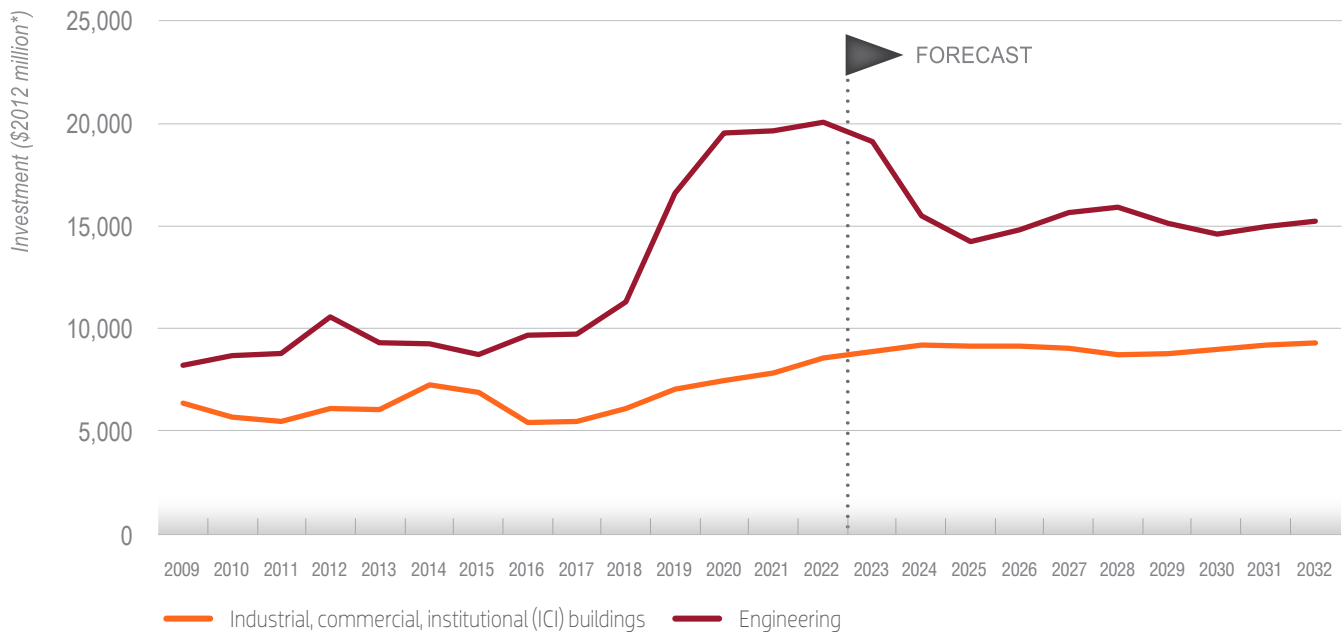
Activity in industrial, commercial, and institutional (ICI) construction increased in 2022, supported by increases in all three components. The overall outlook for the sector is positive through to the end of

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

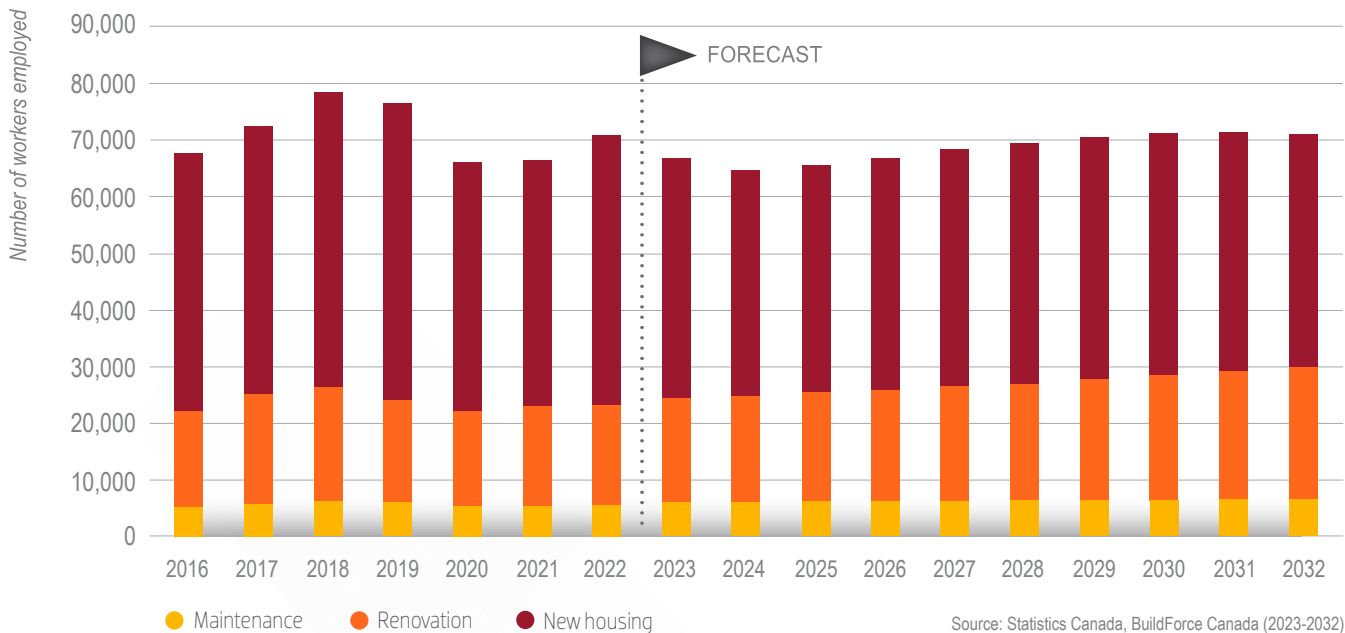


Table 4: Residential market rankings, Lower Mainland, British Columbia

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.

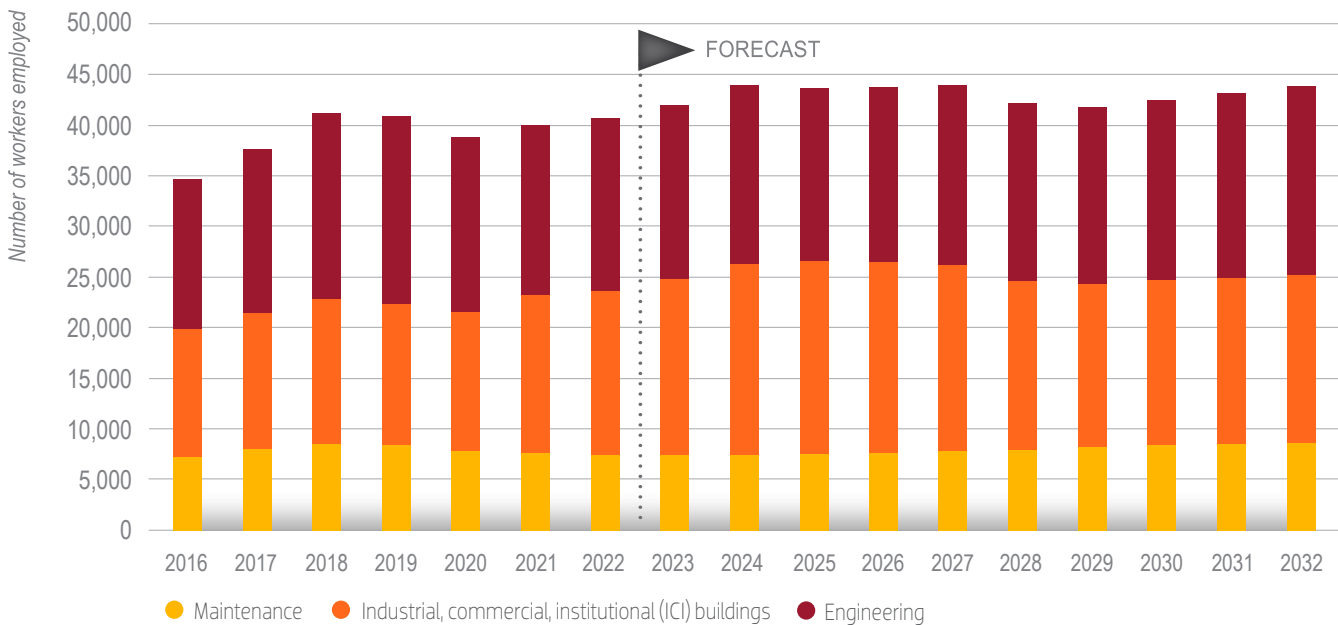
NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

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.

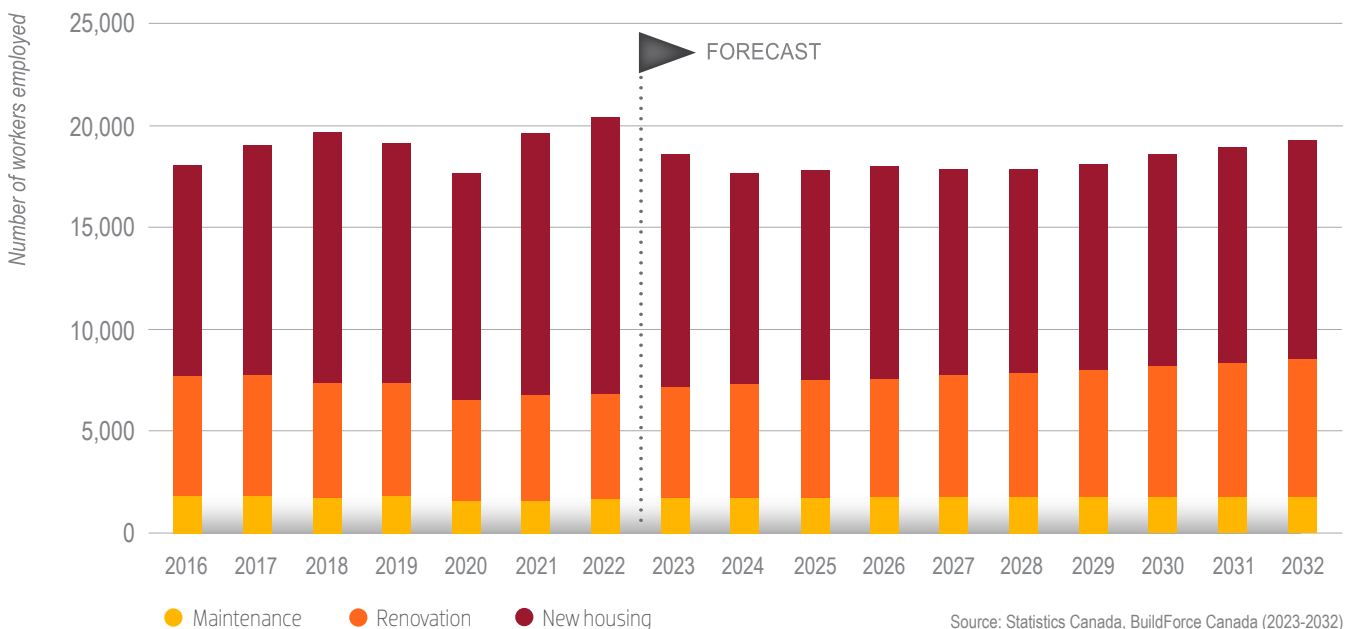
That trend, however, is poised to end in 2023. Housing starts and new-home construction investment are expected to decline across the forecast period due to rising interest rates and reduced demands as the population ages. Through 2025, housing starts are expected to contract by more than 2,600 units (-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.

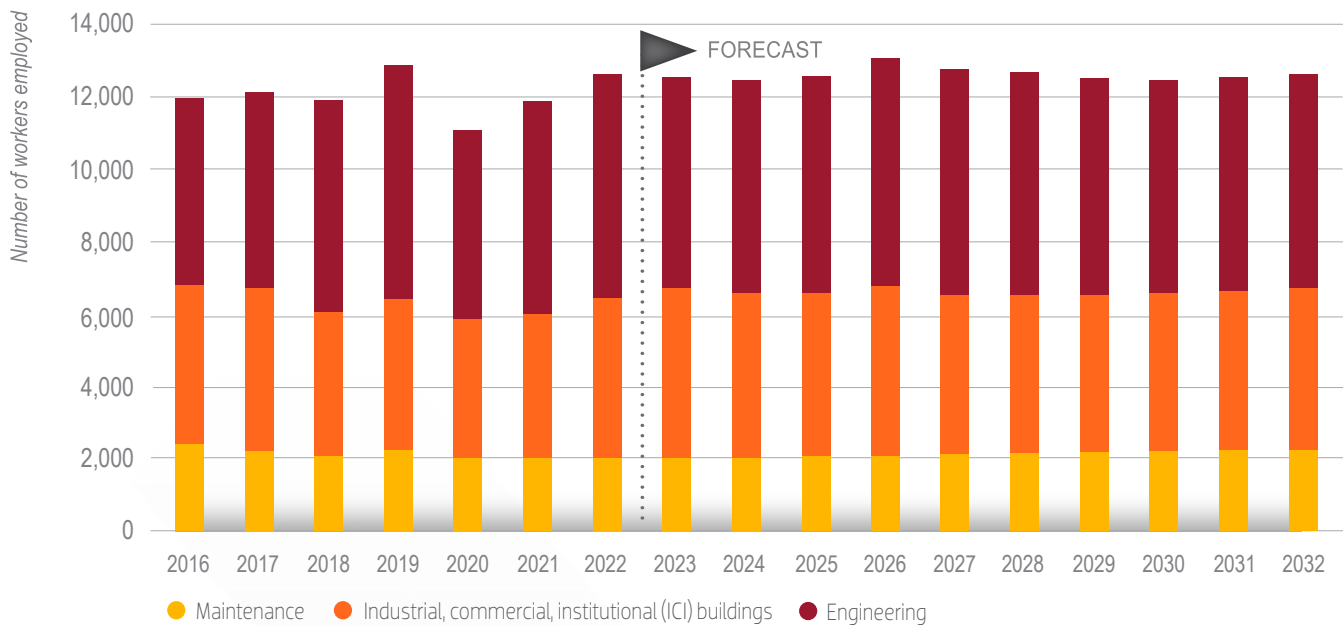
NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

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.

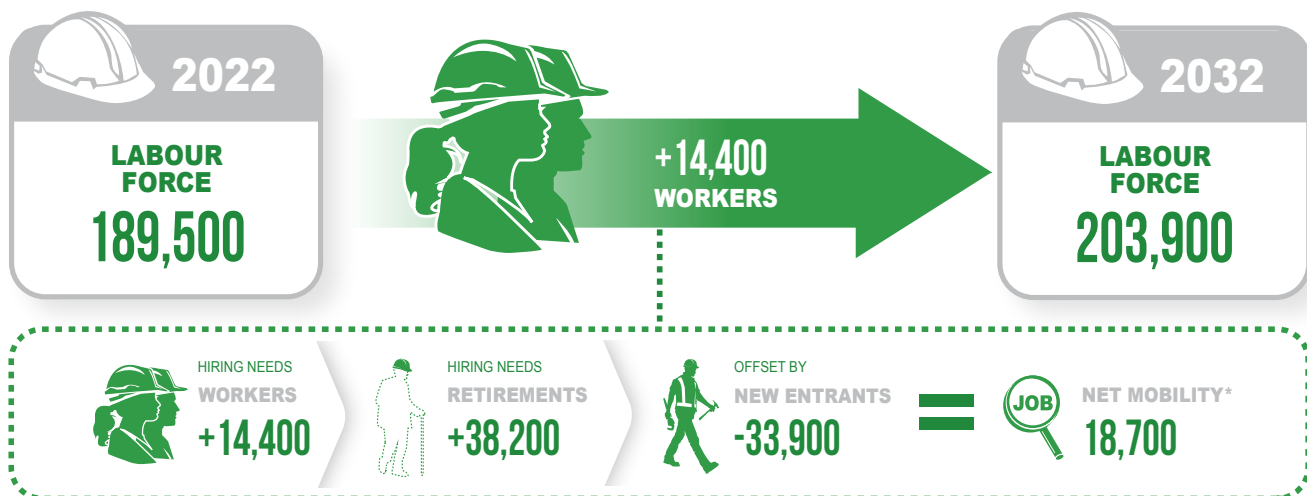
LABOUR FORCE DIVERSIFICATION

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

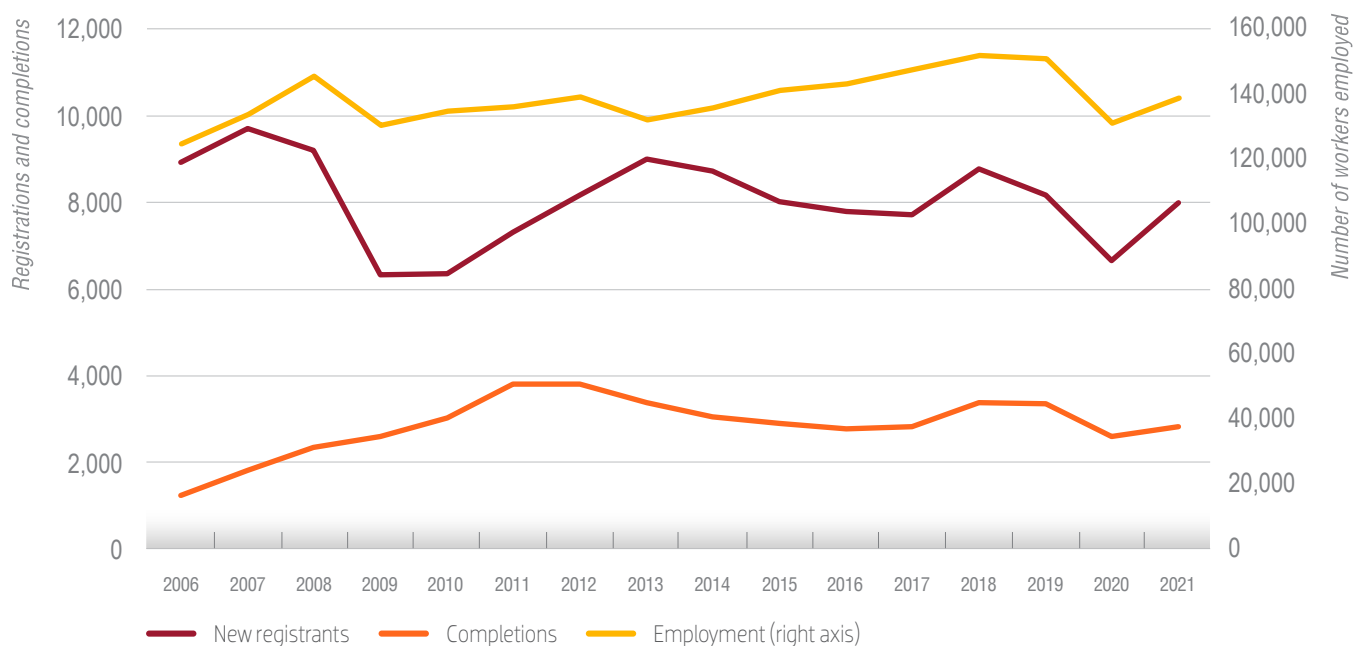


* Net mobility refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility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

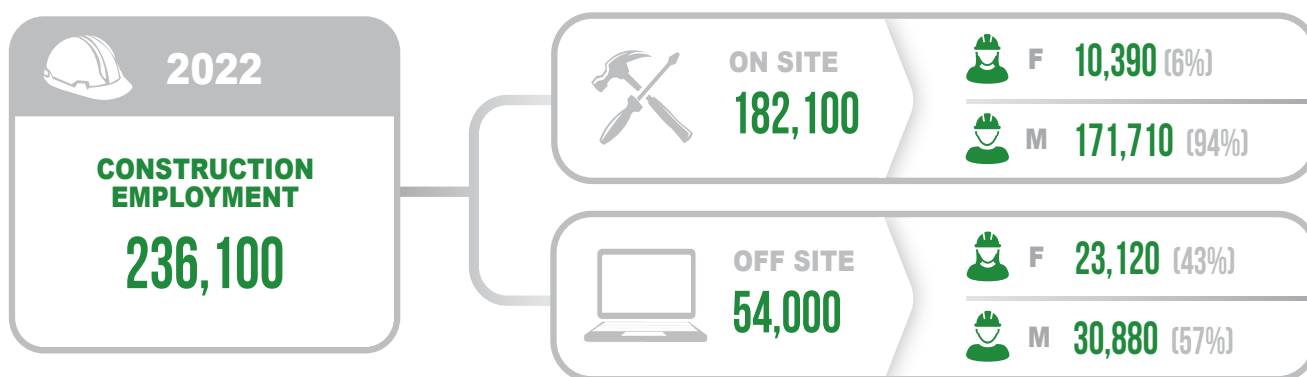
Due in part to lower fertility rates and smaller family sizes in Canada for more than three decades, the share of younger Canadians available to enter the labour force has been in decline for several years. As the baby boomer generation of workers commences retirement over the next decade, the competition 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).

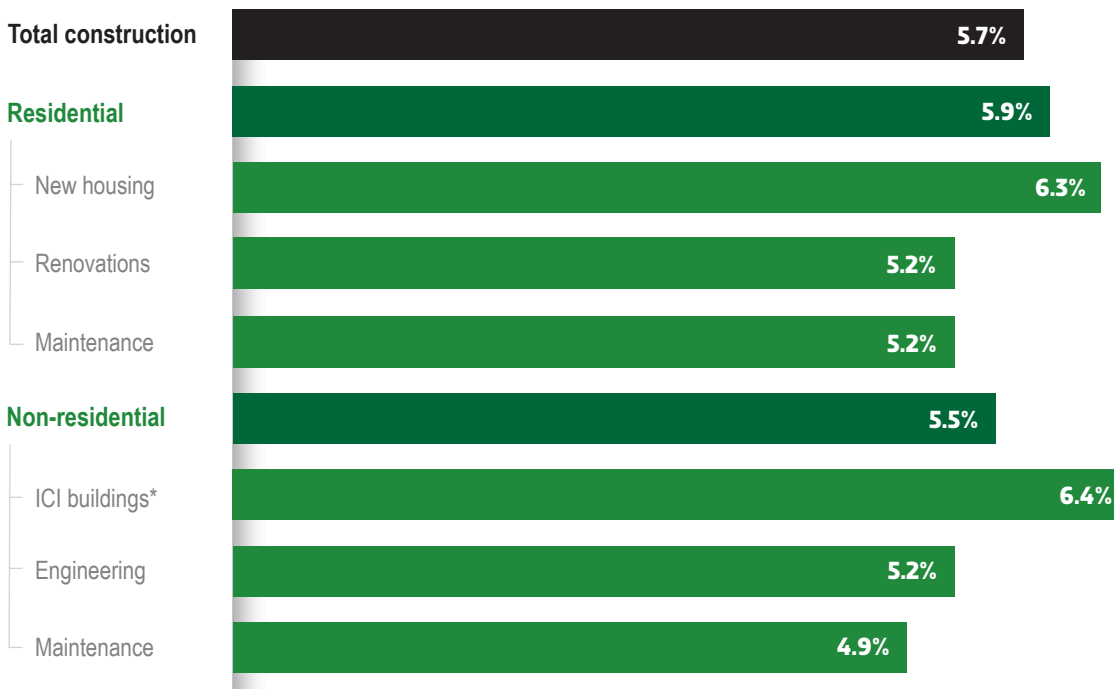
The estimated 10,390 tradeswomen in British Columbia are represented across all sectors of construction. Women account for a relatively equal share of total tradespeople in the residential (5.9%) and non-residential (5.5%) construction sectors. Across sectors, new housing and ICI-building construction 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

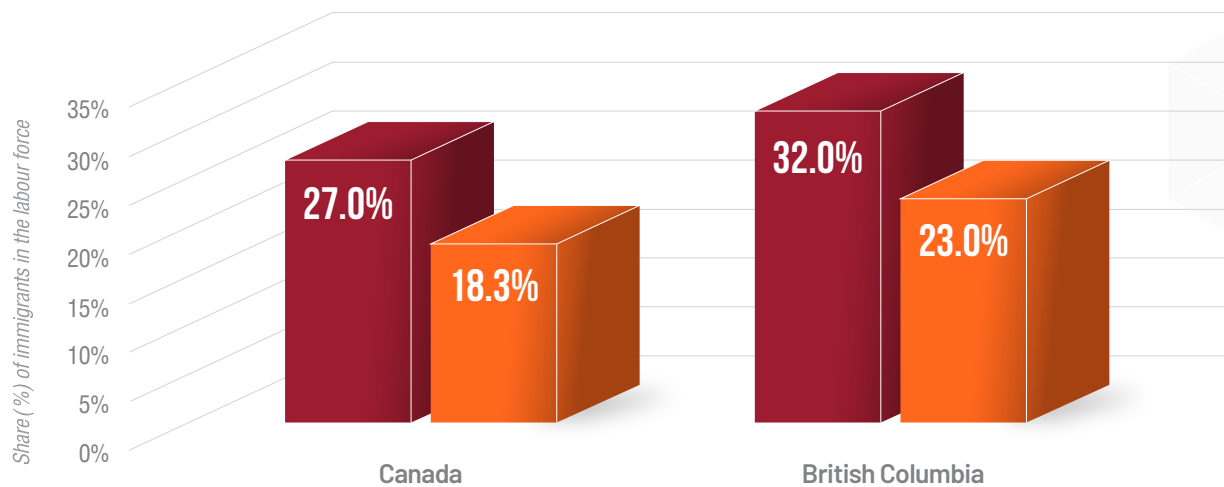
meet labour requirements. Due to the declining natural rate of population growth, immigrants are the primary source of labour force growth in the province. Immigrants have been playing an increasingly important role in replenishing the workforce, with the share of immigrants in the workforce increasing 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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