BUILDFORCE CANADA

CONSTRUCTION & MAINTENANCE LOOKING FORWARD

ALBERTA

HIGHLIGHTS 2022–2027

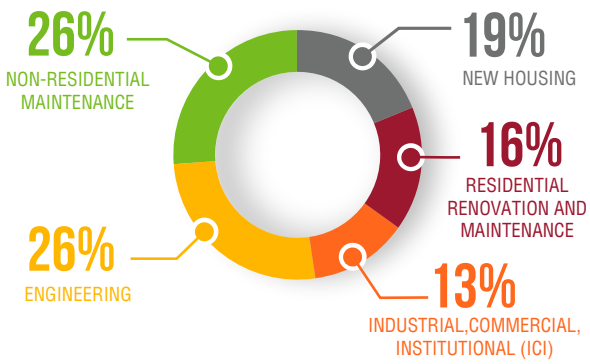
In 2021, a strong rise in new-housing construction and a recovery in oil and gas prices contributed to a rebound in Alberta's construction market demands; further recovery is expected in 2022.

The 2022–2027 forecast scenario for Alberta anticipates that health care, education services, pipeline, petrochemical, transit, and other infrastructure projects help to sustain construction employment over the near term. As current major projects wind down, projected stronger levels of oil and gas investment help to raise non-residential employment across the remainder of the forecast period. The expansion is expected to lift total non-residential construction employment higher by more than 6,100 workers (+5.6%) to 2027.

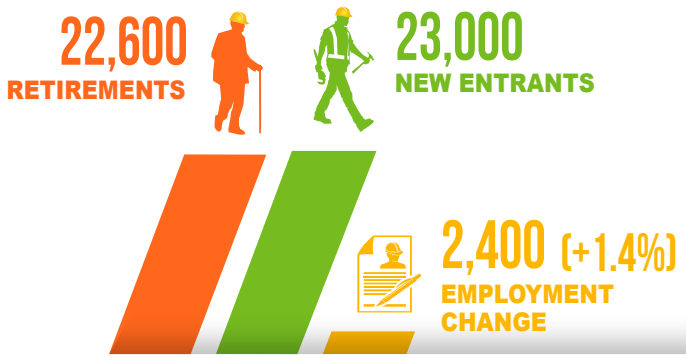
The residential construction market is expected to peak in 2022, before cycling down over the remainder of the forecast period. Renovation activity trends up, but not by enough to offset the decline in new-housing construction, resulting in a net loss of 3,750 workers (-6.4%) by 2027, but remaining above 2019 pre-pandemic levels.

In total, construction employment is expected to rise by close to 2,400 workers (+1.4%) across the forecast period to 2027. Modest growth, alongside the expected retirement of almost 22,650 workers, or 12% of the current labour force, by 2027 will require industry to recruit and train almost 27,700 additional workers to keep pace with industry demands throughout the six-year forecast period.

DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2021, ALBERTA



SIX-YEAR WORKFORCE OUTLOOK FOR ALBERTA



JOB AVERAGE UNEMPLOYMENT RATE 10.0%

HIGHLIGHTS

- Total construction employment in Alberta's construction sector is expected to rise over the forecast period, increasing by close to 2,400 workers (+1%) by 2027 compared to 2021 levels.
- The retirement of more than 22,650 workers during the six-year period increases the overall recruitment requirement to 27,700 workers.
- Industrial maintenance (turnaround and shutdowns) adds to labour demands in 2022, with significant spring and fall seasonal requirements and expected recruiting challenges for selected trades.
- Housing starts exceeded 30,500 units in 2021 – up 27% compared to 24,000 in 2020 – and are anticipated to remain elevated in 2022.

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

ALBERTA CONSTRUCTION OUTLOOK

Alberta's construction market showed signs of a long-awaited recovery in 2021, as a strong rise in residential-sector investment and increased major project requirements ended a downward trend in construction employment that began in 2015. The recovery extends into 2022 before plateauing, as anticipated gains in oil and gas investment are offset by a slowing in new-housing demand.

Economic conditions strengthened in 2021, as Alberta benefited from the rebound in energy production and exports, with non-conventional producers reaching record production levels, driven by strong demand in the United States. The recovery in the energy sector, alongside historic-low interest rates, contributed to a strong uptick in residential investment. Housing starts increased by 27% to 30,500 units in 2021, translating into a 14% jump in residential construction employment. The non-residential sector saw more modest employment gains (+1%) bolstered by increased oil and gas capital investment, major public-sector projects, and industrial maintenance work.

The 2022–2027 BuildForce Canada scenario outlook for Alberta anticipates overall construction employment to strengthen further in 2022, driven by an increase in both residential and non-residential demands. Demands weaken temporarily in 2023 as many current major projects wind down and new housing slows, but modest growth over the remainder of the forecast period leaves overall construction employment higher by 2,400 workers (+1%) by 2027.

Residential construction employment is projected to increase by 3% in 2022, before declining by 10% (-5,760 workers) through to 2027, as declines in new-housing construction are only partly offset by increasing levels of renovation activity.

Non-residential demands are expected to rise by close to 5% in 2022, driven by a recovery in oil and gas investment, alongside increased industrial maintenance work and ongoing major road, highway, health, education, commercial and public-transportation projects. Current major project demands step down in 2023, but declines are partially absorbed by an anticipated acceleration in oil and gas investment to 2025.

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

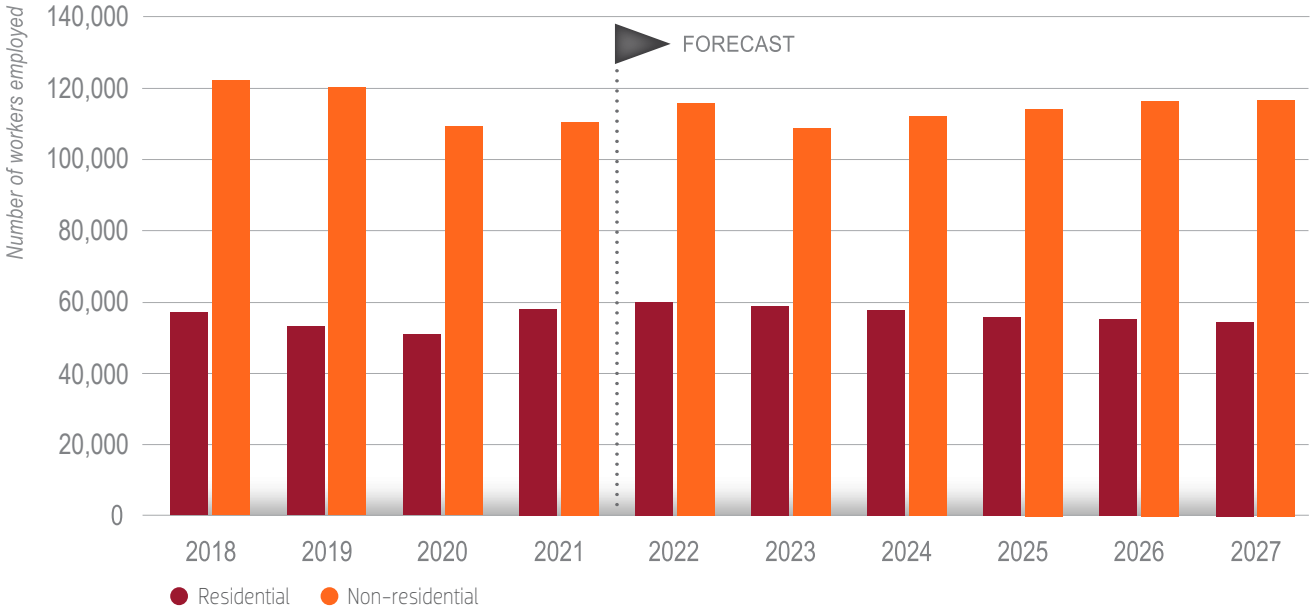
SECTOR INSIGHTS

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 entrants[1], and net mobility[2].

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.

Figure 1: Construction employment growth outlook, Alberta



Source: Statistics Canada, BuildForce Canada (2022-2027)

[1] **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.

[2] **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.

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 Alberta, rankings are reported for 23 residential and 33 non-residential trades and occupations.

RESIDENTIAL SECTOR

Residential employment increased in 2021 for the first time since 2016, driven by increased expenditure in both renovation and new-home construction. Housing starts exceeded 30,500 units in 2021 – up 27% compared to 24,000 in 2020. Renovation expenditures increased by 7% as the economy continued to recover and consumer expenditure strengthened.

Housing starts are anticipated to remain relatively elevated into 2022 but recede thereafter, as lending rates rise and affordability challenges create some downward pressure over the short term. Renovation spending is expected to trend upward over the forecast period. Growth will be driven primarily by general economic and income growth, but also by an aging housing stock that requires increased maintenance.

Following a 14% rise in 2021, residential employment is expected to rise a further 3% in 2022, before declining modestly through to 2027. New-housing employment is expected to decline by 4,250 workers by 2027 – a 13% decline from 2021 levels. Renovation employment is mostly sustained across the forecast period, adding just over 200 workers by 2027 – a 1% rise over 2021 levels. The residential maintenance market is expected to lead employment gains, rising by just under 300 workers by 2027 – a 5% increase over 2021 levels.

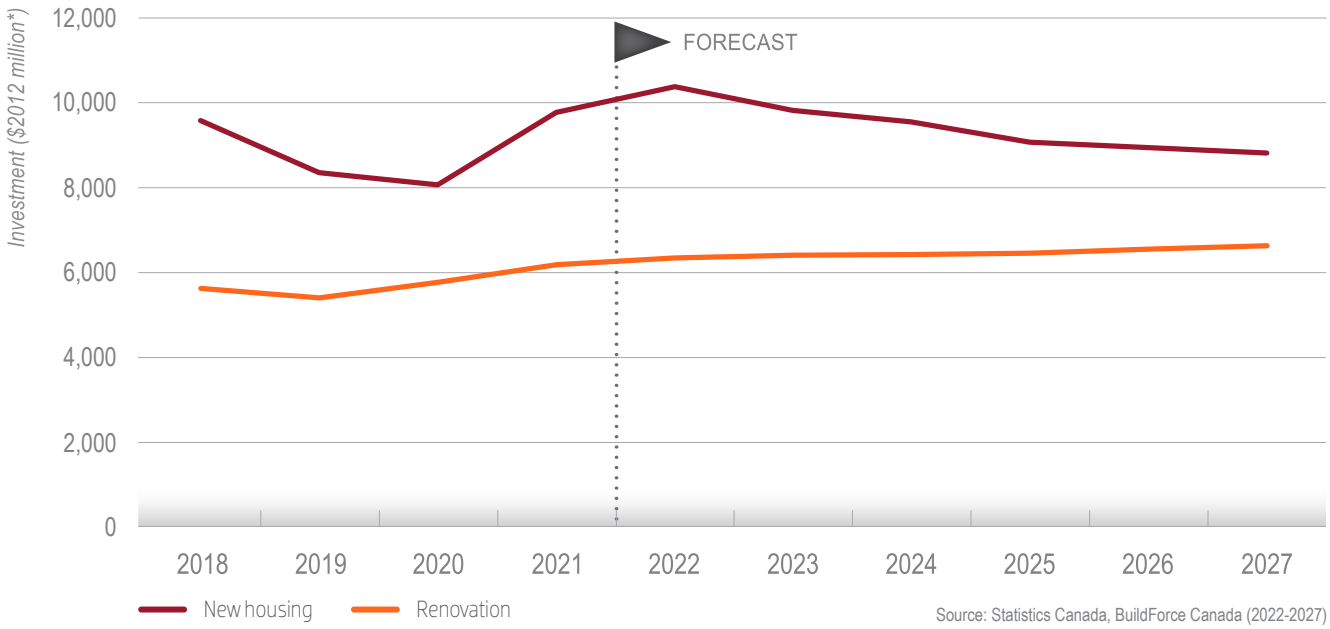
Total employment is expected to decline by more than 3,750 workers by 2027 – a 6% reduction from 2021 levels – but remain above 2019 pre-pandemic levels. Figure 2 shows the renovation and new-housing investment trends for residential construction.

RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

Table 1 shows tight labour market conditions in 2021, as residential demands, which were exacerbated by the decline in labour force participation, ramped up rapidly following several years of decline.

New-housing demands level out in 2022, but momentum maintains pressure for some trades in apartment and new-housing construction as supply catches up and labour force participation rises. The down-cycle in demand releases workers between 2023 and 2024, producing more balanced market conditions.

Figure 2: Residential construction investment, Alberta



Source: Statistics Canada, BuildForce Canada (2022-2027)

* **$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.

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, Alberta

TRADES AND OCCUPATIONS – RESIDENTIAL	2021	2022	2023	2024	2025	2026	2027
Bricklayers	4	4	3	3	3	3	3
Carpenters	4	4	2	3	2	3	3
Concrete finishers	4	3	2	3	3	3	3
Construction estimators	4	3	2	2	2	3	3
Construction managers	4	3	3	3	3	3	3
Contractors and supervisors	4	3	3	2	3	3	3
Electricians	4	3	2	3	3	3	3
Floor covering installers	4	3	3	2	2	3	3
Gasfitters	4	3	2	2	2	3	3
Glaziers	4	3	3	2	2	3	3
Heavy equipment operators (except crane)	4	4	3	3	3	3	3
Homebuilding and renovation managers	4	3	3	3	3	3	3
Insulators	4	4	2	3	2	3	3

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Table 1: Residential market rankings, Alberta (continued)

TRADES AND OCCUPATIONS – RESIDENTIAL	2021	2022	2023	2024	2025	2026	2027
Painters and decorators	4	4	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	4	4	2	3	3	3	3
Plumbers	4	3	2	2	2	3	3
Refrigeration and air conditioning mechanics	4	3	3	2	2	3	3
Residential and commercial installers and servicers	4	3	3	3	3	3	3
Roofers and shinglers	4	3	3	3	3	3	3
Sheet metal workers	4	3	2	2	2	3	3
Tilesetters	4	3	3	2	2	3	3
Trades helpers and labourers	4	4	2	2	2	3	3
Truck drivers	4	4	3	3	3	3	3

Source: BuildForce Canada

NON-RESIDENTIAL SECTOR

In 2021, non-residential employment requirements in Alberta increased – albeit slightly – for the first time since 2018 and are anticipated to rise further in 2022 before building to a scenario peak in 2026.

A recovery in oil sands investment features prominently in the non-residential forecast. Following years of declines in new investment, new oil and gas capital experienced a slight bump in 2021 due to additional diversification investments and a rise in industrial maintenance work that was deferred or delayed by COVID-19.

Activity over the near term is mostly sustained by increased public-transportation projects in Calgary and Edmonton, and a moderate rise in oil sands investment. The wind down of major petrochemical and hospital projects reduces employment in 2023, but growth resumes in 2024, driven by steady but moderate growth in oil sands investment, as pipeline export capacity and a projected increase in global oil demand drive new investments.

Commercial building construction declined in 2020, as the pandemic closures had a significant impact on the hospitality and other service sectors, including commercial office buildings, where vacancies were soaring prior to the pandemic. In the near term, investment in commercial building construction increases and then slows in line with population and economic growth over the latter part of the forecast period.

Institutional building construction maintained similar levels of spending in 2021 relative to 2020 levels, in line with the provincial government's capital spending plan. Investment declines to 2023 as projects wind down, before picking up again later in the forecast period under stronger population growth and increased demand for public infrastructure.

Industrial building construction is anticipated to recover with increased investment over the near term, in line with higher demand projections through the global recovery, before levelling off by 2024–2025.

Figure 3 shows the projected outlook for ICI (industrial, commercial, institutional) and engineering construction investment.

Non-residential employment requirements follow the expected timing of major projects over the forecast period, adding 6,100 workers by 2027– a 6% rise over 2021 levels. Engineering construction employment will decline by 9% by 2027, while ICI construction is projected to rise by just under 4,000 workers – an increase of 18% from 2021 levels. Non-residential maintenance is mostly sustained across the period – down a modest 3% by 2027.

Table 2 summarizes the percent change in non-residential employment by sector across two periods: the short term (2022–2024) and the long term (2025–2027).

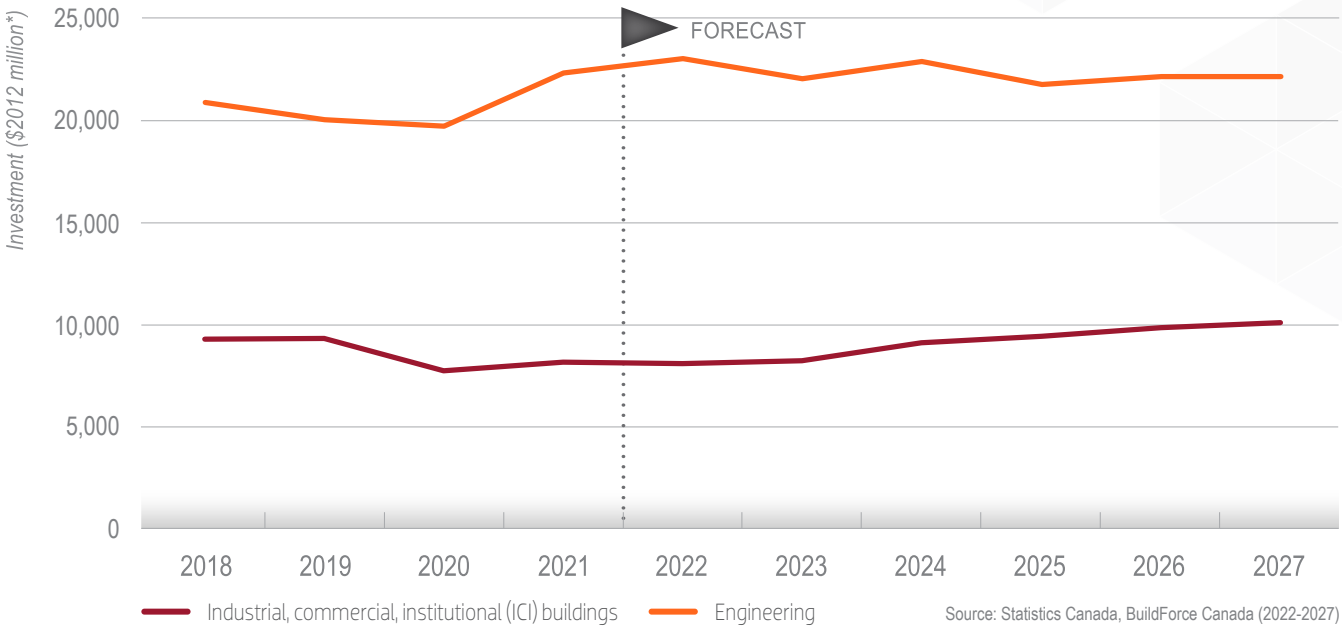
Table 2: Changes in non-residential employment by sector, Alberta

SECTOR		% CHANGE 2022–2024	% CHANGE 2025–2027
Total non-residential employment		2%	4%
ICI* buildings	Industrial	25%	4%
	Commercial, institutional and government	6%	8%
Engineering	Highways and bridges	-12%	6%
	Heavy and other engineering	4%	5%
Maintenance		-3%	1%

Source: Statistics Canada, BuildForce Canada (2022-2027)

* industrial, commercial, institutional

Figure 3: Non-residential construction investment, Alberta



* **$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.

OIL SANDS CONSTRUCTION

In 2020, reductions in capital spending created conditions where investment levels in sustaining capital were insufficient to fully maintain the existing productive stock of capital, resulting in net capital deformation in the non-conventional oil production sector. Sustaining capital investment increased in 2021 and accounted for most of the investment in the sector. As productive capacity is reabsorbed with rising demand in the short term, sustaining capital levels are anticipated to start recovering and grow in line with an increasing stock of new capital investments over the forecast period.

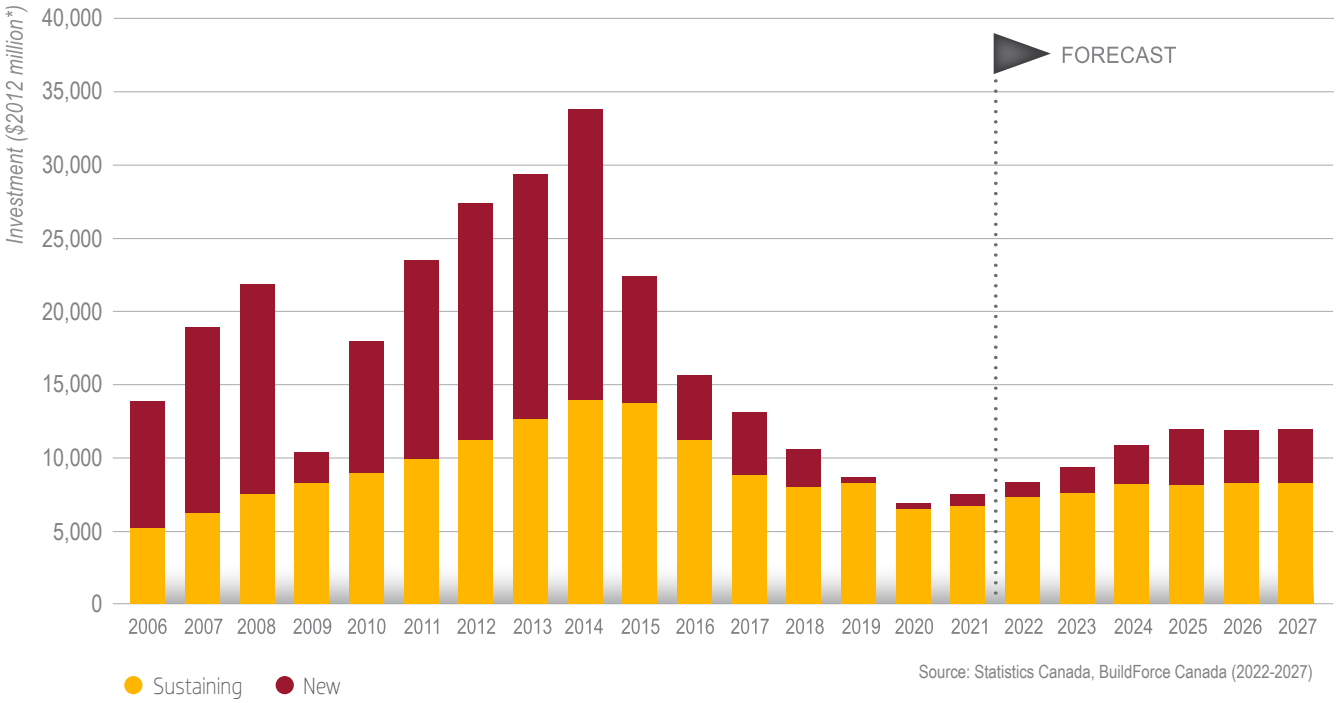
While new investment remained low in 2021, Figure 4 shows an expected recovery in the next few years that will add new capacity later in the forecast period. Excess capacity that currently exists will need to be absorbed before the province experiences higher levels of new investment spending.

Unique to the oil sands sector is the volatility of shutdown/turnaround maintenance work, which, depending on the number and types of projects scheduled, can generate significant market challenges, driven by distinct seasonal peak demands within a year for brief periods (weeks/months). With higher demand requirements in 2022, major shutdown/turnaround maintenance work will be a key driver of industry labour demands, with the largest requirements concentrated during spring and fall peak periods. Demand requires workers with industrial experience and specialized skills within a trade or occupation, including:

- boilermakers
- bricklayers (refractory)
- carpenters (industrial scaffolders)
- crane operators (all terrain)
- insulators
- ironworkers
- millwrights (industrial)
- pipefitters
- supervisors
- welders (alloy)

Out-of-province workers will be required to meet anticipated peak demands, but recruiting challenges are expected to emerge, as Alberta will be competing for highly specialized workers with other provinces where scheduled major capital projects will also be peaking around the same time, especially in Ontario and British Columbia.

Figure 4: Alberta oil sands investment – construction, machinery, and equipment (millions of 2012 dollars*)



Source: Statistics Canada, BuildForce Canada (2022-2027)

* $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: investment displayed in this chart includes the value of machinery and equipment.

NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

Non-residential employment recovered moderately in 2021 with a significant rise in ICI activity, particularly in the industrial and commercial sectors. Project demands pick up in 2022, as requirements for transportation and utility projects offset declines in health care and education projects. Scheduled industrial shutdown/turnaround maintenance work adds to market challenges in 2022 for selected trades, with increased demands concentrated during spring and fall peak periods.

As current projects wind down, labour market conditions weaken in 2023, as shown in Table 3. Increased investment in commercial buildings and the oil sands should bolster demand for some trades in 2024, but markets return to balanced conditions under more moderate growth across the remainder of the forecast period. In 2027, markets weaken for selected trades as public transportation projects wind down.

Table 3: Non-residential market rankings, Alberta

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2021	2022	2023	2024	2025	2026	2027
Boilermakers	4	5	3	3	3	3	3
Bricklayers	3	4	3	3	3	3	3
Carpenters	3	4	2	3	3	3	3
Concrete finishers	3	3	3	3	3	3	3
Construction estimators	3	3	3	4	3	3	3
Construction managers	3	3	3	4	3	4	3
Construction millwrights and industrial mechanics	3	4	2	3	3	3	3

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

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2021	2022	2023	2024	2025	2026	2027
Contractors and supervisors	3	3	2	3	3	3	3
Crane operators	3	4	3	4	4	3	2
Drillers and blasters	2	3	3	4	3	3	3
Electrical power line and cable workers	4	3	3	4	3	3	4
Electricians	3	4	2	3	3	3	3
Elevator constructors and mechanics	3	3	3	4	3	3	3
Floor covering installers	3	3	3	4	3	3	3
Gasfitters	3	3	3	3	3	3	3
Glaziers	3	3	3	4	3	3	3
Heavy equipment operators (except crane)	3	3	2	3	3	3	3
Heavy-duty equipment mechanics	4	4	4	4	3	3	3
Industrial instrument technicians and mechanics	4	3	2	3	3	3	3
Insulators	3	5	3	3	3	3	3
Ironworkers and structural metal fabricators	3	3	2	3	3	3	2
Painters and decorators	3	3	3	4	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	3	3	4	3	3	3
Plumbers	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	3	3	3	4	3	3	3
Residential and commercial installers and servicers	3	3	3	4	3	3	3
Roofers and shinglers	3	4	2	3	3	3	3
Sheet metal workers	3	4	3	3	3	3	3
Steamfitters, pipefitters, and sprinkler system installers	3	5	3	3	3	3	3
Tilesetters	3	3	3	4	3	3	3
Trades helpers and labourers	3	4	2	3	3	3	3
Truck drivers	3	3	2	3	3	3	3
Welders and related machine operators	3	3	2	3	3	3	3

Source: BuildForce Canada

BUILDING A SUSTAINABLE LABOUR FORCE

THE AVAILABLE LABOUR FORCE

The contraction of Alberta's construction market from the highs reached in 2014 has led many workers to leave the industry or the province. The loss of workers accelerated in 2020 due to the impacts of COVID-19, as well as instability in oil and gas markets in the early part of the year. The provincial construction labour force declined by 6% between 2019 and 2021, contributing to lower rates of unemployment, which fell to 6.8% from 9.2% in 2019.

Data shows that the decline was more concentrated in the core working-age group of those aged 25 to 55 years, which fell by 17,000 workers. It is anticipated that some – but not all – of these workers will re-enter the labour force as the economy fully reopens, but the loss of experienced workers, should they be slow to return or decide to retire, could have a lasting impact, as they cannot be readily replaced with inexperienced workers. Recruiting challenges are likely to build in 2022 as the recovery continues, requiring a renewed focus on recruitment and training.

Figure 5: Changes in the construction labour force, Alberta

* **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

Alberta is expected to experience strong population growth over the coming decade, due largely to the younger population and attractiveness as a destination for newcomers to Canada. However, despite its relatively young population, Alberta's construction industry will need to replace an estimated 22,650 workers, or 12% of the current labour force, expected to retire by 2027.

Figure 5 provides a summary of the estimated changes in the construction labour force across the full six-year forecast period.

APPRENTICESHIP

Future labour force development is critical to maintaining the vitality and effectiveness of the construction labour force, and apprenticeship is a critical pathway of entry into the construction industry for youth and young adults. This is especially true for those working in ICI and heavy-industrial construction. As such, apprenticeship training is typically a barometer of career interest in the sector. When apprenticeship numbers rise, overall skilled trades recruitment typically follows. As such, it remains a useful measure of the industry's success in recruiting the next generation of skilled workers to the industry. However, tracking apprenticeship development cannot just be measured using aggregated numbers. What the industry needs is accurate information regarding which trades are registering increases and which trades are undertraining to meet replacement demands.

New registrations in the 19 largest construction trade programs peaked in 2014, followed by a sharp drop of approximately 6,020 in 2015. New registrations experienced another significant decline in 2019, falling 20% from 2018 levels to under 7,800 new registrants, in line with lower levels of provincial employment. Further declines were evident in 2020, with new registrations falling an additional 30%, as COVID-19 imposed obstacles to the delivery of in-school training, testing, and certification. These impacts are likely to reduce the near-term numbers of new certified workers.

Alberta's construction industry is projected to require nearly 8,210 new certified journeypersons to sustain the current workforce share of certifications and to keep pace with employment and replacement demands across all industries over the forecast period.

Table 4 provides a provincial overview of the anticipated certification requirements for the 19 largest construction trade programs in all industries and in construction. The table also provides the target number of new entrants required to fulfill demand requirements over the forecast period, taking into account trends in program completion rates.

Table 5 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, all trades are expected to meet or exceed anticipated requirements by 2027, except for Boilermaker, Carpenter, Glazier, Insulator, Powerline Technician, and Welder. These specific trades were identified as at risk of being potentially undersupplied. It is important to note that since it is difficult to determine in what sectors apprentices may work after completing their program, the supply risk analysis compares the projected supply of new journeypersons and certification requirements across all industries. The analysis does not account for existing imbalances at the 2021 starting point.

Table 4: Estimated construction certification demand and projected target of new entrants at 45% assumed rate of program completion, Alberta, 2022 to 2027

	2022	2023	2024	2025	2026	2027	Total 2022–2024	Total 2025–2027
Total certification demand – all industries	6,485	-176	3,019	2,505	2,721	2,128	**9,328**	**7,354**
Total certification demand – construction	3,777	-949	1,494	1,286	1,490	1,108	**4,323**	**3,884**
New apprentices required – construction	3,917	3,483	3,172	3,188	3,307	3,933	**10,573**	**10,428**
New construction apprentices required as a share of labour force (%)	5%	5%	4%	4%	4%	5%	**5%**	**5%**

Source: BuildForce Canada

Table 5: Estimated construction certification demand and projected target of new entrants by trade, Alberta, 2022 to 2027

Trade	Total certification demand – construction	New apprentices required – construction	Apprentice certification supply risk – all industries
Boilermaker	478	1,384	●
Welder	558	1,076	●
Glazier	117	220	●
Carpenter	1,393	5,286	●
Insulator (Heat and Frost)	301	1,054	●
Powerline Technician	151	194	●
Industrial Mechanic (Millwright)	136	169	●
Sheet Metal Worker	371	733	●
Hoist Operator (Wellhead)	77	150	●
Plumber	1,314	3,861	●
Hoist Operator (Boom Truck)	66	159	●
Refrigeration and Air Conditioning Mechanic	360	519	●
Steamfitter/Pipefitter	501	2,168	●
Ironworker (Reinforcing)	61	421	●
Construction Electrician	2,000	3,045	●
Heavy-Duty Equipment Technician	167	306	●
Industrial Instrumentation and Control Technician	59	97	●
Gasfitter	28	42	●
Mobile Crane Operator	70	117	●
Total	**8,207**	**21,000**	

● **At risk:** Certifications required exceed projected completions
● **Balanced conditions:** Certifications required in line with projected completions
● **Ample supply:** Projected completions exceed certifications required

Source: BuildForce Canada

UNDERREPRESENTED 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 shift in demographics, the construction industry must diversify its recruitment. In order to succeed, the industry must increase its recruitment of individuals from groups traditionally underrepresented in the current construction labour force, including women, Indigenous people, and newcomers.

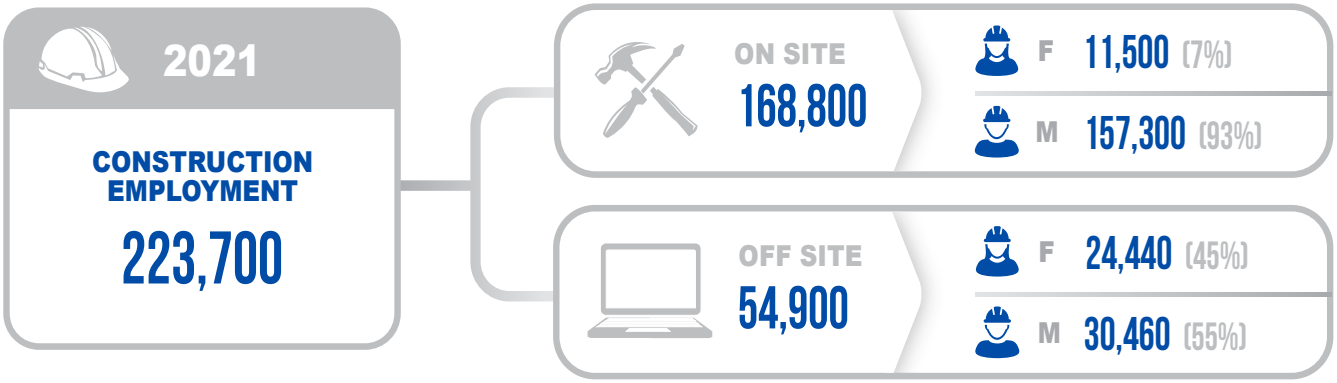
In 2021, there were approximately 35,940 women employed in Alberta's construction industry, of which 32% worked on site, directly on construction projects, while the remaining 68% worked off site, primarily in administrative and management-related occupations. Of the 168,800 tradespeople employed in the industry, women made up only 7% (see Figure 6).

The estimated 11,500 tradeswomen in Alberta are represented across all sectors of construction, but given the nature of construction work in the province, women account for a higher share of total tradespeople in residential construction. Across sectors, the representation of women is highest in residential maintenance construction, where women account for 9.6% of the workforce (see Figure 7). The top five trades and occupations in which women tend to be employed are trades helpers and labourers (17% of all tradeswomen), painters and decorators (16%), construction managers (9%), electricians (8%), and carpenters (6%).

The Indigenous population is another underrepresented group that presents recruitment opportunities for Alberta's construction industry. In 2021, Indigenous people accounted for approximately 5% of Alberta's total working-age population.[3] The Indigenous population is the fastest growing in Canada and has a higher propensity to choose the construction industry as a career choice. In 2021, an estimated 7.5% of non-Indigenous Canadians were employed in the construction industry, compared to 9.4% for the Indigenous population.[4] Given the predisposition of Indigenous workers to consider careers in construction, there may be scope to further increase the recruitment of Indigenous people into the industry.

Alberta's construction industry may also leverage newcomers (immigrants) to Canada over the forecast period to meet labour requirements. As of 2018, newcomers and more established immigrants accounted for 14% of Alberta's construction workforce.[5] Based on Statistics Canada's Labour Force Survey, Europe and Asia have continued to be the largest source regions for immigrants currently working in the province's construction labour force, although the number of people from Asia has increased, while the number of Europeans has been on the decline.[6] The province is expected to welcome 229,460 new international migrants between 2022 and 2027. 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 continues to recruit its share of newcomers into the labour force.

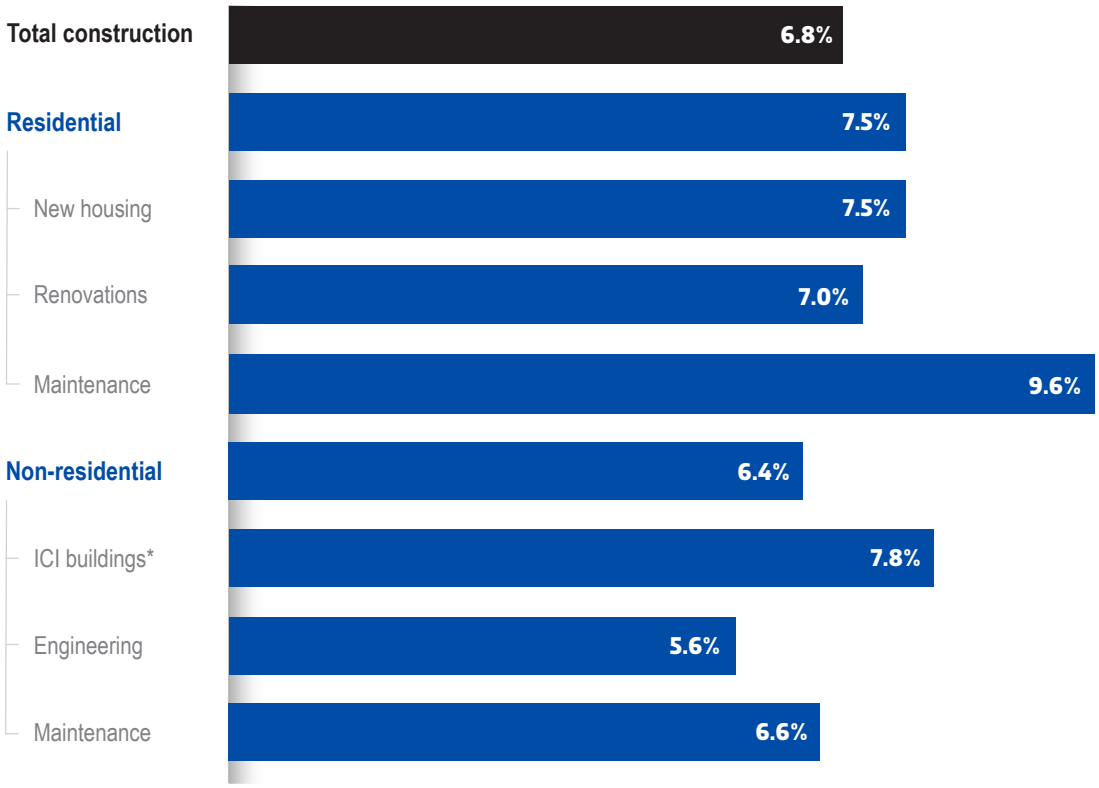
Figure 6: Detailed construction employment by gender, Alberta, 2021



Source: BuildForce Canada calculations based on Statistics Canada's Labour Force Survey (LFS) and 2016 Census of the Population.

[3] Statistics Canada. Table 14-10-0364-01 Labour force characteristics by province, region, and Indigenous group
[4] Statistics Canada. Table 14-10-0366-01 Employment by Indigenous group and occupation
[5] Statistics Canada, Labour Force Survey 2018, custom data request
[6] Ibid

Figure 7: Women's share of total direct trades and occupations (on site), Alberta



* industrial, commercial, institutional

Source: BuildForce Canada calculations based on Statistics Canada's Labour Force Survey (LFS) and tne 2016 Census of the Population.

CONCLUSIONS AND IMPLICATIONS

Following a peak in 2022, new-home construction in Alberta is anticipated to decline in line with falling housing starts resulting from increased interest rates over the forecast period. Renovation work trends up over the period, driven primarily by overall economic and income growth, but also from a rising and aging housing stock that requires increased maintenance.

Non-residential construction increased in 2022 in line with major projects, including higher oil and gas investment, pipelines, utilities, light rail transit, institutional buildings, and other infrastructure projects. As major projects wind down, overall investment and labour demands are sustained by projected stronger levels of oil and gas investment later in the forecast period.

In 2022, scheduled heavy-industrial maintenance (turnaround and shutdowns) work will be a key driver of market challenges, with significant seasonal demands concentrated in the spring and fall with high demands for selected trades and occupations, including boilermakers, pipefitters, all-terrain crane operators, scaffolders, and specialized welders.

While modest growth is projected over the forecast period, the industry must remain focused on an aging workforce and the expected retirement of an estimated 22,650 workers, or 12% of the current labour force, which represents a significant loss of skilled experienced workers.

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 anticipated labour market conditions reflect the current long-run oil price outlook and industry capital investment assumptions. Any changes to these assumptions present risks and potentially alter anticipated labour market conditions.