

Winter 2023-2024 (For November 2023 Release)

Construction Starts Forecast

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Highlights

- Total US construction starts fell by 13.3% year-on-year (y/y) and 7.3% year-to-date (ytd) in Q3 2023. Growth in new civil engineering construction was not enough to offset a steep decline in residential building and a milder decline in non-residential construction.
- GDP growth in Q3 2023 surprised to the upside, and strong monthly data through September suggest that a recession is unlikely to begin before the end of the year. We still expect a mild contraction over the coming quarters as the impact of cumulative Fed rate hikes takes hold. GDP is expected to rise 2% in 2023, slowing to 0.2% in 2024.
- Total US construction starts are expected to contract 8.1% in 2023, with a return to growth of 2.8% forecast in 2024. Civil engineering starts are expected to lead overall construction in 2024, but new non-residential building is forecast to retreat after solid growth in 2023. Homebuilding is forecast to return to growth of 4.4%, following a 21.9% decline this year.
- Total Canadian construction starts rose 51.5% y/y and 18.7% ytd in Q3 2023. Both non-residential building starts and civil engineering starts posted strong outturns, but new residential construction retreated at a double-digit pace.
- After a strong outturn in Q3, Canadian construction starts are expected to rise by 8% this year, slowing to 4.6% growth in 2024. New civil engineering projects are expected to lead growth in 2024, rising 17.6%. By contrast, non-residential building is expected to contract in 2024 after bumper growth in 2023. While new residential construction is forecast to return to growth in 2024, this won't offset two years of shrinking activity.

Link to article here: <https://tinyurl.com/5fh4nezm>

Sources: ConstructConnect®/Oxford Economics.
Forecasts reflect actual starts through Q3 2023.

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Overview

Continued weakness in new residential construction in Q3 2023

Total US construction starts fell by 13.3% year-on-year (y/y) and 7.3% year-to-date (ytd) in Q3 2023. New residential building led the decline, down 23.5% y/y and 23.6% ytd. Non-residential building declined 11.9% y/y and 3.4% ytd. New engineering works, by contrast, grew 1.7% y/y and 16.1% ytd.

Groundbreaking on a large number of mega-projects—or projects valued at more than \$1 billion each—continued in Q3 2023. There were 12 such projects started during the quarter for a total value of \$27.2 billion. However, mega-projects also featured heavily in the same quarter last year, with groundbreakings on nine such projects for a total value of \$27.5 billion.

In 2022, mega-projects were heavily concentrated in manufacturing, with work starting on several semiconductor, LNG, and battery factories. For example, industrial building accounted for five of the nine mega-projects in Q3 2022. There were still four large factory projects started in Q3 2023—including a \$9 billion LNG factory in Texas—but in general, groundbreaking on mega-projects has become more broad-based throughout 2023. In addition to four mega industrial projects, other large projects started in Q3 included two prisons, two data centers, and a single mega-project categorized in each of hotels, multi-family residential, power, and miscellaneous civil engineering.

Despite more than \$14 billion in spending on large projects in Q3 2023, new factory construction fell 31.9% y/y and 21.8% ytd as a \$9 billion Samsung semiconductor factory and a \$7 billion GM battery plant started in the same period last year fell out of the annual calculation. Outside of manufacturing, there were sharp annual declines of over 50% y/y recorded in hospitals, nursing homes and assisted living facilities, and transportation terminals, although the latter posted solid growth of 16.5% in ytd terms thanks to groundbreaking on a terminal expansion at New York’s JFK airport in Q1.

On a more positive note, new prison construction posted the strongest growth in non-residential building—up 358% y/y and 130% ytd—due to two mega-projects started last quarter. The two new data center projects are categorized in private office construction, which grew 57.7% y/y but fell 1.2% ytd. Military construction grew 32.7% y/y and 91.6% ytd. Smaller building segments that posted growth of over 30% y/y include courthouses and libraries & museums.

In the civil engineering segment, new

	2021	2022	2023	2024	2025	2026	2027
US							
Macro variables							
GDP	5.8	1.9	2.0	0.2	1.7	2.5	2.0
Population growth	0.2	0.4	0.4	0.5	0.5	0.5	0.5
Unemployment rate (%)	5.4	3.6	3.7	4.8	4.7	4.4	4.4
Real disposable income	3.2	-6.0	4.3	2.1	2.9	1.9	1.5
Central bank rate (%)	0.1	1.7	5.1	5.1	4.1	3.1	2.2
10-year government yield (%)	1.4	3.0	3.9	3.9	3.4	3.3	3.3
Construction starts (% growth in U.S.\$)							
Total starts	10.8	23.0	-8.1	2.8	8.8	9.2	6.9
Residential	20.3	3.0	-21.9	4.4	15.0	17.0	11.7
Non-res bldg	5.5	47.1	-7.1	-1.9	5.1	4.7	3.8
Civil engineering	1.1	28.8	15.8	8.1	6.6	5.4	4.1
Canada							
Macro variables							
GDP	5.0	3.4	0.8	-0.4	3.3	3.5	2.9
Population growth	0.6	1.8	3.0	2.7	2.0	1.6	1.2
Unemployment rate (%)	7.5	5.3	5.4	7.0	6.6	6.1	5.9
Real disposable income	1.0	-0.4	0.9	0.4	1.9	2.9	3.0
Central bank rate (%)	0.3	1.9	4.7	4.7	3.8	2.8	2.0
10-year government yield (%)	1.4	2.8	3.4	3.9	3.7	3.5	3.4
Exchange rate C\$ per US\$	1.25	1.30	1.35	1.33	1.26	1.19	1.18
Construction starts (% growth in C\$)							
Total starts	15.5	-4.4	8.0	4.6	20.2	9.9	1.8
Residential	28.9	-6.4	-19.1	7.6	16.0	13.5	10.6
Non-res bldg	37.9	-8.1	23.6	-8.6	24.1	6.9	-7.5
Civil engineering	-13.8	2.9	21.5	17.6	19.6	10.1	4.1

miscellaneous civil engineering projects increased 152% y/y and 92.9% ytd after a \$3 billion pipeline project was started in Texas in Q3 2023. New power infrastructure grew 25.4% y/y and 64.8% ytd boosted by a \$2 billion transmission line in New Mexico. Elsewhere in the engineering segment, water & sewage infrastructure posted a single-digit y/y increase, while roads and dams, canals, & marine works posted single-digit y/y declines. Bridges and airports posted larger y/y contractions, of 31.7% and 17.8% respectively. All sub-segments grew in ytd terms except for new bridge building, which fell 16.3%.

Both new single-family and multi-family construction continued to fall in Q3. New single-family housing starts fell 1.7% y/y and 17.9% ytd. The rise in mortgage rates over the last year, combined with ongoing affordability issues, has weighed on new single-family construction since early-2022. However, single-family construction may be starting to stabilize—on a seasonally adjusted basis, single-family housing starts grew in both Q2 and Q3. New multi-family housing starts fell 52.6% y/y and

32.9% ytd. Apartment building has been more volatile from quarter-to-quarter, but the trend in recent quarters has been distinctly negative.

Put-in-place (PIP) construction, a measure of work in progress, increased by 6.8% y/y in August. In seasonally adjusted terms, it has grown for seven consecutive months. The y/y decline in residential construction has been easing—residential construction activity fell 3.6% y/y in August, an improvement from a decline of 14.9% y/y in April. Non-residential construction, by contrast, grew 17.1%. A 64.4% y/y increase in factory-building led non-residential construction activity, but activity in the non-residential sector has become more broad-based in recent months with all sub-sectors posting positive y/y growth in August. Construction starts are a leading indicator for PIP construction, so this pattern is consistent with the starts data seen so far this year. ConstructConnect, in partnership with Oxford Economics, a world-leading economic forecasting firm, has developed a service covering PIP by type of structure for US states, cities, and counties. The service includes

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data and forecasts and uses ConstructConnect's starts data and forecasts to derive the PIP forecasts.

Input prices for key building materials have stabilized over the last three months. Construction input costs, excluding capital, labor, and imports, rose 0.5% y/y in September, the first annual rise after six months of deflation. Meanwhile, construction material costs—a less comprehensive input cost index—was down 1.2% y/y in September, compared to its trough of a 5.3% y/y decline in January. Of the major construction inputs, prices for lumber and metals are generally declining, but prices are still rising for most concrete, cement, and related products. Final demand inflation for construction was 3.7% in September, a significant easing from the double-digit rises posted through most of this year. Output prices generally lag input prices by six to nine months, as it takes time for construction firms to adjust prices in response to rising input costs. Slowing output price inflation reflects earlier declines in input prices and a weak economic outlook.

Construction job growth continued apace in Q3 2023. The sector added 59,000 jobs during the quarter, only a modest slowdown from the 65,000 jobs added in the previous quarter. But the number of job openings has eased from the heights reached at the end of 2022 suggesting that labor shortages may be starting to ease. However, sector wage inflation is around 5% for hourly earnings and 6% for weekly earnings, outpacing the economy as a whole.

Resilient Q3 GDP data is unlikely to prevent the looming downturn

The 4.9% annualized jump in GDP in Q3 and the strength of the monthly data through September means it is now unlikely a recession begins before year end. However, much of that strength was driven by a sharp fall in the saving rate, a strong rise in government spending and a jump in inventory accumulation, all of which won't be sustained. We still expect a sharp downturn over the coming quarters, due to the impact of cumulative Fed rate hikes, stricter lending conditions, tighter fiscal policy, and weakened household finances. These factors will encourage consumers to cut back on spending and businesses to cut back on hiring and investment. GDP is expected to rise 2% in 2023, slowing to 0.2% in 2024.

Uncertainty about the outlook for the US is unusually high. As well as binary events like the shutdowns or strikes, volatile oil prices have introduced more uncertainty to the trajectory for inflation and interest rates. To reflect lingering investor uncertainty, we have raised our forecasts for 10-year Treasury yields over the medium term to 3.25%.

Table 2: Drivers of headline sectors

Sector	Short-term drivers	Long-term drivers
Residential	Unemployment rate; Household liabilities; Mortgage interest rates; House prices; Population trends	House prices; Incomes
Non-residential building	Output trends in relevant sector; Population trends; Capacity utilization; Borrowing costs; Employment in relevant sector; Disposable income	Output trends in relevant sector; Employment in relevant sector
Civil engineering	Federal/State/Provincial spending; Government borrowing costs; Employment in government sector; Output trends in relevant sector	Federal/State/Provincial spending; Output trends in relevant sector

The headline PCE deflator rose by 0.4% on the month in September, while the core PCE deflator rose by 0.3%. On a year-over-year basis, headline PCE inflation held steady at 3.4%, while core PCE inflation edged down to 3.7% from 3.8%. This supports our view that the Fed has finished hiking and will leave rates unchanged over the rest of the year. However, September's strong growth in employment raises the risk that the Fed may hike rates again in November. But many other datapoints will be released between now and then, including inflation, so we think there is not enough evidence to change our call. In addition, other elements of the labor market continue to offer signs of disinflation—wage growth is moderating and the labor supply is improving.

Return to growth in construction starts in 2024 will be modest

Total US construction starts are expected to contract 8.1% this year, followed by a return to growth next year of 2.8%. The civil engineering subsector is set to drive growth, both this year and next, with ongoing policy support from the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Act (IIJA). Both residential and non-residential building are poised to fall this year as high interest rates weigh on activity. Housing starts are expected to pick up in 2024, while non-residential is set to continue its slump.

Construction activity in square footage terms is forecast to fall 20.8% this year, with residential and non-residential both slumping around 20% in year-on-year terms. Both sectors are set to expand in 2024, but by only 3.8% and 3.2% respectively. Civil engineering projects usually do not have an associated square foot value, so the strong performance in this sector is left out of the measure. Double-digit growth is forecast between 2025 and 2027

as overall prospects improve.

Numerous headwinds continue to constrain the residential building segment, and we consequently expect residential project starts to fall 21.9% this year. Elevated mortgage rates, weak housing affordability and tighter credit conditions are likely to persist into 2024 which will keep activity subdued, but not negative. We forecast starts will grow 4.4% next year, with slightly stronger growth from the multi-family subsector, as weak affordability forces many households to postpone home purchases and rent instead. Multi-family activity is also expected to outpace single-family over the medium term, though the outlook for both is strong post-2025.

Non-residential building activity is not expected to return to growth in 2024, but levels of construction activity are high relative to historic averages. The medium-term outlook is positive with support from the Inflation Reduction Act and the CHIPS Act. The bumper growth in 2022 means that the 2023 growth rate will be negative due to large projects falling out of the calculation, while capacity constraints are likely to weigh on activity in 2024, causing a slump of 1.9%.

Institutional construction is the only non-residential subsector expected to avoid contraction this year, as large military and prison projects started this year bolster the sector. Commercial construction is expected to fall 2.2% in 2023 before expanding by 5.8% next year, boosted by groundbreaking on several major transportation terminal projects. Shopping & retail is also expected to perform well next year with a number of big projects in the pipeline. Private offices will continue to struggle as vacancy rates sit at high levels and hybrid working practices reduce the need for additional office space.

The outlook for the civil engineering

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segment remains strong with government funding and support in the form of the IJJA and IRA. We expect activity to climb 15.8% this year before slowing to 8.1% in 2024. The medium-term outlook also remains strong, though growth is likely to taper over time in the wake of the recent mega-projects coming through. Bridges is the only subsector expected to record a decline this year, with all other subsectors posting double-digit growth. Miscellaneous civil engineering is expected to be the fastest growing subsector next year with a growth forecast of 23% following a 97.3% increase in 2023. The sector includes several large engineering projects in categories such as pipelines, tunnels, and railways. New power infrastructure construction is expected to grow 14.3% next year. The sector is important for the green transition, with construction transmission infrastructure, a nuclear power plant, and offshore wind farm all in the project pipeline. The weakest performing subsector in 2024, and the only one to slump into negative territory, is set to be dams, canals & bridges, which is about to decline 1.4% following two years of double-digit growth. Elsewhere, bridges is expected to bounce back from the 2023 decline, while growth in road construction is expected to move back towards its medium-term trend after a couple of years of impressive growth. Similarly, growth rates in new airport construction and water & sewage treatment construction are forecast to taper after recent strong performances.

Slow growth in Canadian construction starts in 2023-24

Total Canadian construction starts rose 51.5% y/y and 18.7% ytd in Q3 2023. Non-residential building starts soared by 138% y/y and 69.6% ytd, while new engineering construction grew 73.4% y/y and 19.2% ytd. By contrast, residential construction starts fell 21.4% y/y and 17.2% ytd.

The strong growth in new non-residential building activity was underpinned by buoyant construction in hotels (+1775% y/y and +369% ytd) and hospitals (+1476% y/y and +393% ytd). Activity in hospitals was underpinned by three large projects: a C\$3.6 billion project in Ontario, a C\$2.9 billion project in British Columbia, and a smaller C\$590 million project in British Columbia. The strong growth in the hotel category was due to the fact that there was little construction activity in the sector in the same period last year, rather than the result of any major project. Countering this, private office building fell 90.6% y/y and 76.1% ytd and new retail construction fell 75.5% y/y and 73% ytd. Because the total value of construction projects is lower

in Canada than in the US, large swings in growth are common.

In the engineering segment, miscellaneous civil engineering posted the strongest growth, up 1284% y/y and 97% ytd, underpinned by a C\$6.8 billion pipeline project in BC. Power infrastructure starts grew 71.7% y/y and 15.2% ytd. While there weren't any mega-projects started in Q3, work began on two wind farms projects in Alberta, valued at C\$800 million and C\$400 million. Elsewhere in engineering, construction in Q3 was less robust with all other sectors down in y/y terms except for the small dams, canals, and marine work sector. Bridge construction was positive in ytd terms due to a mega-project started in Q2, and new road construction—generally the most stable engineering sub-sector—also posted growth in ytd terms.

In the residential sector, both single-family and multi-family starts fell in Q3 in both y/y and ytd terms. Single-family construction starts contracted by 28.2% y/y and 26.6% ytd, while new apartment building fell by 14.5% y/y and 9.3% ytd.

Disruptions from wildfires and strikes meant that GDP likely contracted in Q3, after stalling in two of three previous quarters. We believe the economy has now slipped into a moderate recession that will last through Q1 2024, with a peak-to-trough decline in GDP of 1.3% over Q2 2023 to Q1 2024. The full impact of higher interest rates is still coming for households, which together with a deepening housing correction, a loosening labor market, and the expected start of a mild US recession around the turn of the year, cloud the forecast outlook.

The economy added a surprising 64,000 jobs in September, mainly on a bounce-back in education employment. This matched rapid immigration-driven labor supply growth and kept the unemployment rate steady at 5.5%. But the labor market is becoming less favourable for job seekers: part-time and self-employed workers dominated September's job gain, while private-sector employment was flat. Average hourly wage growth edged up to 5.0% y/y in September, roughly where it has been since July. This remains too high for the Bank of Canada (BoC), but further loosening in the labor market amid strong population growth and impending job losses will prompt wage growth to slow sharply over the next year.

Slowing demand has convinced the BoC to hold the target for the overnight rate at 5% at the September and October meetings. Tighter monetary policy over the past 18 months has finally begun to slow momentum in the economy, but the full

impact of higher interest rates is yet to be felt. We think the recession that has already begun will help lower inflation to the 2% target by late next year, though the upside risk to global crude oil prices threatens this outlook. If we are correct, the BoC will be prompted to keep the policy rate at 5% through mid-2024, before slowly lowering it to a 2% neutral level in 2027. If economic growth and inflation prove to be stronger than expected, further modest rate hikes are likely.

Total construction starts in Canadian dollar terms are expected to rise by 8% this year after a very strong Q3. However, because of the solid performance in the civil engineering segment, which has no square footage value attached, total starts in square footage terms are forecast to fall 17.3%, before picking up to 4.8% growth in 2024.

The residential construction segment is set to fall 19.1% this year before rebounding to 7.6% as the housing market stabilizes in the latter half of 2024. Both single-family and multi-family starts are on track to record double-digit declines this year, with single-family faring much worse—single-family starts in 2023 are expected to be 34.4% below their peak in 2021 compared to a 14.6% peak-to-trough decline in apartment building. While growth is expected to resume in both categories in 2024, total residential construction in 2024 will still be 18.5% below its previous peak.

Non-residential building starts are expected to fall 8.6% in 2024 following strong growth of 23.6%. This year the sector has been bolstered by hospital construction, surging over 300% in 2023. This will reverse next year, however, when the large projects fall out of the annual calculation. Commercial activity, by contrast, is expected to post double-digit growth next year as shopping and retail drives the subsector due to a plethora of projects expected to break ground in 2024. Meanwhile, on the institutional side, transportation terminals will be by far the best performing subsector next year, with projects lined up across a number of provinces.

Conversely, the civil engineering segment is expected to continue its upward trajectory with growth of 17.6% in 2024, following an expansion of 21.5% this year. Bridges will be the only subsector to contract in 2024 after bumper growth in 2023, with dams, canals & marine, and roads being the only other two subsectors to fall short of double-digit growth. Elsewhere, power infrastructure is set to be the fastest growing subsector. Like in the US, new power generation and transmission infrastructure are key to decarbonisation plans.

Table 3: U.S. Type-of-Structure Forecasts
(\$ Billions USD)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Single-family	257.708	224.961	195.814	200.679	220.627	254.315	286.175
Multi-family	104.818	148.316	95.568	103.622	129.267	155.024	171.135
TOTAL RESIDENTIAL	362.526	373.277	291.382	304.302	349.894	409.339	457.310
<i>(Yr/yr % change)</i>	<i>20.3%</i>	<i>3.0%</i>	<i>-21.9%</i>	<i>4.4%</i>	<i>15.0%</i>	<i>17.0%</i>	<i>11.7%</i>
Hotels/Motels	7.207	11.052	12.846	14.612	16.106	17.667	18.995
Shopping/Retail	12.885	15.379	14.069	17.222	18.909	21.044	22.789
Parking Garages	1.768	2.308	2.131	2.295	2.466	2.646	2.834
Amusement	6.555	7.887	9.213	8.859	9.356	9.916	10.497
Private Offices	20.957	24.289	22.831	22.433	24.787	28.544	31.440
Governmental Offices	11.703	13.248	15.470	14.736	15.517	16.295	16.996
Laboratories (Schools & Industrial)	2.453	4.911	3.820	3.986	4.200	4.389	4.541
Warehouses	28.230	29.784	22.412	23.433	26.384	28.118	29.375
Sports Stadium/Convention Center	6.043	6.948	8.680	9.289	9.357	9.237	9.022
Transportation Terminals	9.969	5.983	7.591	9.052	10.165	10.022	9.673
TOTAL COMMERCIAL	107.769	121.787	119.063	125.918	137.246	147.878	156.163
<i>(Yr/yr % change)</i>	<i>5.1%</i>	<i>13.0%</i>	<i>-2.2%</i>	<i>5.8%</i>	<i>9.0%</i>	<i>7.7%</i>	<i>5.6%</i>
TOTAL INDUSTRIAL (manufacturing)	35.082	115.087	79.982	68.595	67.106	65.362	64.618
<i>(Yr/yr % change)</i>	<i>61.4%</i>	<i>228.1%</i>	<i>-30.5%</i>	<i>-14.2%</i>	<i>-2.2%</i>	<i>-2.6%</i>	<i>-1.1%</i>
Religious	1.217	1.039	1.058	1.115	1.181	1.250	1.305
Hospitals/Clinics	18.730	25.845	21.974	24.175	26.255	28.268	29.615
Nursing Homes/Assisted Living	5.965	4.583	2.662	3.873	4.495	5.186	5.709
Libraries/Museums	3.591	3.591	4.456	3.670	3.809	3.944	4.082
Courthouse	2.477	1.656	2.056	1.923	2.061	2.182	2.280
Police/Fire	3.035	4.235	4.611	4.874	5.138	5.407	5.633
Prisons	2.231	2.963	5.468	3.557	3.874	4.089	4.258
Military	9.211	9.729	16.556	14.849	15.356	16.109	16.738
Educational Facilities	59.892	74.520	85.983	81.939	84.691	87.702	90.737
MED misc	7.479	13.746	8.609	10.609	11.391	12.169	12.914
TOTAL INSTITUTIONAL	113.829	141.906	153.432	150.583	158.252	166.306	173.271
<i>(Yr/yr % change)</i>	<i>-4.6%</i>	<i>24.7%</i>	<i>8.1%</i>	<i>-1.9%</i>	<i>5.1%</i>	<i>5.1%</i>	<i>4.2%</i>
Miscellaneous Non-Res Building	6.330	7.992	6.920	7.347	7.755	8.150	8.530
TOTAL NON-RES BLDG	263.010	386.772	359.398	352.442	370.359	387.696	402.583
<i>(Yr/yr % change)</i>	<i>5.5%</i>	<i>47.1%</i>	<i>-7.1%</i>	<i>-1.9%</i>	<i>5.1%</i>	<i>4.7%</i>	<i>3.8%</i>
Airport	5.204	7.633	9.145	9.451	9.994	10.571	11.165
Roads	67.384	84.509	95.293	99.267	104.775	110.456	115.290
Bridges	17.994	27.360	24.005	27.648	29.668	31.235	32.247
Dams/Canal/Marine	8.541	9.414	11.468	11.311	12.408	13.318	13.990
Water & Sewage Treatment	33.868	43.269	48.882	51.436	54.070	56.835	59.260
Misc Civil (Power, etc.)	23.485	29.381	44.535	53.104	57.904	61.043	63.239
TOTAL ENGINEERING	156.475	201.567	233.329	252.217	268.819	283.458	295.191
<i>(Yr/yr % change)</i>	<i>1.1%</i>	<i>28.8%</i>	<i>15.8%</i>	<i>8.1%</i>	<i>6.6%</i>	<i>5.4%</i>	<i>4.1%</i>
TOTAL NON-RESIDENTIAL	419.486	588.339	592.727	604.659	639.178	671.154	697.774
<i>(Yr/yr % change)</i>	<i>3.8%</i>	<i>40.3%</i>	<i>0.7%</i>	<i>2.0%</i>	<i>5.7%</i>	<i>5.0%</i>	<i>4.0%</i>
GRAND TOTAL	782.012	961.616	884.109	908.961	989.072	1,080.493	1,155.084
<i>(Yr/yr % change)</i>	<i>10.8%</i>	<i>23.0%</i>	<i>-8.1%</i>	<i>2.8%</i>	<i>8.8%</i>	<i>9.2%</i>	<i>6.9%</i>

EXPLANATION: Table 3 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 4 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 4: U.S. Type-of-Structure Forecasts
 Arranged to match the alphabetical category drop-down menus in INSIGHT (\$ Billions USD)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Summary							
CIVIL	156.475	201.567	233.329	252.217	268.819	283.458	295.191
NON-RESIDENTIAL BUILDING	263.010	386.772	359.398	352.442	370.359	387.696	402.583
RESIDENTIAL	362.526	373.277	291.382	304.302	349.894	409.339	457.310
GRAND TOTAL	782.012	961.616	884.109	908.961	989.072	1,080.493	1,155.084
Verticals							
Airport	5.204	7.633	9.145	9.451	9.994	10.571	11.165
All Other Civil	14.452	12.729	25.120	30.907	34.528	36.555	38.238
Bridges	17.994	27.360	24.005	27.648	29.668	31.235	32.247
Dams / Canals / Marine Work	8.541	9.414	11.468	11.311	12.408	13.318	13.990
Power Infrastructure	9.033	16.652	19.416	22.197	23.376	24.488	25.001
Roads	67.384	84.509	95.293	99.267	104.775	110.456	115.290
Water and Sewage Treatment	33.868	43.269	48.882	51.436	54.070	56.835	59.260
CIVIL	156.475	201.567	233.329	252.217	268.819	283.458	295.191
<i>(Yr/Yr % change)</i>	<i>1.1%</i>	<i>28.8%</i>	<i>15.8%</i>	<i>8.1%</i>	<i>6.6%</i>	<i>5.4%</i>	<i>4.1%</i>
Offices (private)	20.957	24.289	22.831	22.433	24.787	28.544	31.440
Parking Garages	1.768	2.308	2.131	2.295	2.466	2.646	2.834
Transportation Terminals	9.969	5.983	7.591	9.052	10.165	10.022	9.673
Commercial	32.694	32.580	32.553	33.781	37.418	41.211	43.948
<i>(Yr/Yr % change)</i>	<i>9.0%</i>	<i>-0.3%</i>	<i>-0.1%</i>	<i>3.8%</i>	<i>10.8%</i>	<i>10.1%</i>	<i>6.6%</i>
Amusement	6.555	7.887	9.213	8.859	9.356	9.916	10.497
Libraries / Museums	3.591	3.591	4.456	3.670	3.809	3.944	4.082
Religious	1.217	1.039	1.058	1.115	1.181	1.250	1.305
Sports Arenas / Convention Centers	6.043	6.948	8.680	9.289	9.357	9.237	9.022
Community	17.407	19.465	23.406	22.931	23.703	24.347	24.906
<i>(Yr/Yr % change)</i>	<i>7.1%</i>	<i>11.8%</i>	<i>20.2%</i>	<i>-2.0%</i>	<i>3.4%</i>	<i>2.7%</i>	<i>2.3%</i>
College / University	15.096	19.022	24.498	21.870	22.648	23.558	24.323
Elementary / Pre School	15.796	22.010	23.847	24.674	25.452	26.352	27.605
Jr / Sr High School	26.922	30.889	35.275	32.872	33.940	35.012	35.935
Special / Vocational	2.077	2.599	2.363	2.523	2.651	2.780	2.874
Educational	59.892	74.520	85.983	81.939	84.691	87.702	90.737
<i>(Yr/Yr % change)</i>	<i>-11.3%</i>	<i>24.4%</i>	<i>15.4%</i>	<i>-4.7%</i>	<i>3.4%</i>	<i>3.6%</i>	<i>3.5%</i>
Courthouses	2.477	1.656	2.056	1.923	2.061	2.182	2.280
Fire and Police Stations	3.035	4.235	4.611	4.874	5.138	5.407	5.633
Government Offices	11.703	13.248	15.470	14.736	15.517	16.295	16.996
Prisons	2.231	2.963	5.468	3.557	3.874	4.089	4.258
Government	19.446	22.101	27.605	25.090	26.590	27.972	29.167
<i>(Yr/Yr % change)</i>	<i>3.8%</i>	<i>13.7%</i>	<i>24.9%</i>	<i>-9.1%</i>	<i>6.0%</i>	<i>5.2%</i>	<i>4.3%</i>
Industrial Labs / Labs / School Labs	2.453	4.911	3.820	3.986	4.200	4.389	4.541
Manufacturing	35.082	115.087	79.982	68.595	67.106	65.362	64.618
Warehouses	28.230	29.784	22.412	23.433	26.384	28.118	29.375
Industrial	65.765	149.781	106.214	96.014	97.690	97.869	98.535
<i>(Yr/Yr % change)</i>	<i>30.7%</i>	<i>127.8%</i>	<i>-29.1%</i>	<i>-9.6%</i>	<i>1.7%</i>	<i>0.2%</i>	<i>0.7%</i>
Hospitals / Clinics	18.730	25.845	21.974	24.175	26.255	28.268	29.615
Medical Misc.	7.479	13.746	8.609	10.609	11.391	12.169	12.914
Nursing Homes	5.965	4.583	2.662	3.873	4.495	5.186	5.709
Medical	32.175	44.173	33.245	38.657	42.142	45.624	48.238
<i>(Yr/Yr % change)</i>	<i>10.8%</i>	<i>37.3%</i>	<i>-24.7%</i>	<i>16.3%</i>	<i>9.0%</i>	<i>8.3%</i>	<i>5.7%</i>
Military	9.211	9.729	16.556	14.849	15.356	16.109	16.738
<i>(Yr/Yr % change)</i>	<i>0.0%</i>	<i>5.6%</i>	<i>70.2%</i>	<i>-10.3%</i>	<i>3.4%</i>	<i>4.9%</i>	<i>3.9%</i>
Hotels	7.207	11.052	12.846	14.612	16.106	17.667	18.995
Retail Misc.	6.330	7.992	6.920	7.347	7.755	8.150	8.530
Shopping	12.885	15.379	14.069	17.222	18.909	21.044	22.789
Retail	26.422	34.423	33.835	39.181	42.770	46.861	50.314
<i>(Yr/Yr % change)</i>	<i>-6.5%</i>	<i>30.3%</i>	<i>-1.7%</i>	<i>15.8%</i>	<i>9.2%</i>	<i>9.6%</i>	<i>7.4%</i>
NON-RESIDENTIAL BUILDING	263.010	386.772	359.398	352.442	370.359	387.696	402.583
<i>(Yr/Yr % change)</i>	<i>5.5%</i>	<i>47.1%</i>	<i>-7.1%</i>	<i>-1.9%</i>	<i>5.1%</i>	<i>4.7%</i>	<i>3.8%</i>
Multi-Family	104.818	148.316	95.568	103.622	129.267	155.024	171.135
Single-Family	257.708	224.961	195.814	200.679	220.627	254.315	286.175
RESIDENTIAL	362.526	373.277	291.382	304.302	349.894	409.339	457.310
<i>(Yr/Yr % change)</i>	<i>20.3%</i>	<i>3.0%</i>	<i>-21.9%</i>	<i>4.4%</i>	<i>15.0%</i>	<i>17.0%</i>	<i>11.7%</i>
GRAND TOTAL	782.012	961.616	884.109	908.961	989.072	1,080.493	1,155.084
<i>(Yr/Yr % change)</i>	<i>10.8%</i>	<i>23.0%</i>	<i>-8.1%</i>	<i>2.8%</i>	<i>8.8%</i>	<i>9.2%</i>	<i>6.9%</i>

EXPLANATION: Table 3 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 4 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 5: U.S. States, Total Construction Starts — ConstructConnect

States (alphabetical by 2-letter code)	Actuals	Forecasts (Year versus previous year % change)				
	(Level in \$ Millions USD)	2023	2024	2025	2026	2027
	2022					
Alaska - AK	\$2,176	130.0%	-55.3%	9.9%	7.7%	5.0%
Alabama - AL	\$13,921	19.1%	-10.2%	8.0%	8.3%	6.6%
Arkansas - AR	\$7,365	17.5%	-7.4%	7.7%	10.8%	7.3%
Arizona - AZ	\$32,466	-30.9%	13.3%	15.0%	14.5%	9.2%
California - CA*	\$75,971	-5.9%	5.4%	10.3%	8.8%	7.6%
Colorado - CO	\$17,363	-2.2%	10.0%	11.5%	11.0%	8.6%
Connecticut - CT	\$5,960	8.2%	0.0%	9.1%	7.6%	4.5%
District Of Columbia - DC	\$4,101	-40.1%	17.4%	19.8%	4.1%	2.4%
Delaware - DE	\$3,216	-29.1%	23.0%	8.9%	8.4%	6.5%
Florida - FL*	\$73,644	-7.7%	0.8%	13.9%	14.2%	9.2%
Georgia - GA	\$35,284	-12.5%	10.4%	6.6%	8.4%	6.8%
Hawaii - HI	\$3,453	80.1%	-40.2%	11.9%	7.8%	6.0%
Iowa - IA	\$8,334	1.9%	0.4%	7.8%	6.7%	5.1%
Idaho - ID	\$7,144	-25.7%	40.1%	8.2%	6.8%	7.4%
Illinois - IL	\$23,114	-13.6%	27.3%	8.5%	6.6%	4.6%
Indiana - IN	\$20,260	10.8%	-15.7%	5.8%	5.5%	4.8%
Kansas - KS	\$7,993	36.5%	-33.7%	7.4%	6.9%	5.0%
Kentucky - KY	\$17,009	-39.9%	22.1%	7.5%	7.1%	5.8%
Louisiana - LA	\$20,711	-43.4%	24.5%	4.5%	3.7%	3.1%
Massachusetts - MA	\$16,689	-5.0%	20.1%	11.5%	8.1%	5.7%
Maryland - MD	\$13,013	7.5%	8.5%	10.3%	8.1%	6.0%
Maine - ME	\$4,701	-49.4%	20.3%	14.0%	9.2%	6.0%
Michigan - MI	\$23,453	-17.9%	-0.3%	5.9%	6.4%	4.9%
Minnesota - MN	\$15,696	-16.2%	28.4%	7.5%	7.0%	5.2%
Missouri - MO	\$14,643	-19.4%	14.2%	7.9%	7.2%	5.4%
Mississippi - MS	\$5,308	5.6%	-12.2%	6.8%	7.5%	5.5%
Montana - MT	\$2,799	-14.7%	12.6%	11.8%	11.7%	6.8%
North Carolina - NC	\$44,191	-8.2%	-11.5%	5.6%	10.8%	8.1%
North Dakota - ND	\$4,575	-17.0%	22.6%	12.4%	8.6%	5.9%
Nebraska - NE	\$7,382	-10.3%	20.4%	9.5%	7.8%	5.8%
New Hampshire - NH	\$2,325	-10.9%	28.0%	11.3%	10.9%	6.6%
New Jersey - NJ	\$14,385	-10.6%	25.6%	9.2%	7.3%	4.7%
New Mexico - NM	\$4,805	35.5%	-17.0%	1.8%	6.9%	5.3%
Nevada - NV	\$11,187	-23.9%	-11.9%	15.9%	13.1%	9.3%
New York - NY*	\$50,067	-10.5%	16.1%	0.4%	2.0%	2.9%
Ohio - OH	\$23,135	16.2%	-4.0%	4.5%	4.8%	4.4%
Oklahoma - OK	\$10,458	3.8%	-0.6%	9.0%	9.2%	6.6%
Oregon - OR	\$8,961	6.6%	16.4%	10.7%	10.0%	7.4%
Pennsylvania - PA	\$25,202	-8.8%	12.7%	7.8%	7.3%	5.5%
Rhode Island - RI	\$1,796	-39.7%	32.3%	13.5%	7.2%	4.5%
South Carolina - SC	\$16,926	-0.7%	-5.3%	7.8%	10.9%	8.1%
South Dakota - SD	\$5,134	-13.4%	-30.9%	12.8%	10.9%	7.1%
Tennessee - TN	\$26,033	-10.8%	-2.5%	9.4%	10.0%	7.6%
Texas - TX*	\$154,221	-10.2%	-8.9%	11.7%	12.4%	8.9%
Utah - UT	\$12,524	-8.2%	36.6%	14.2%	11.3%	7.9%
Virginia - VA	\$19,412	12.1%	-5.4%	10.2%	10.1%	6.9%
Vermont - VT	\$1,035	19.4%	-26.9%	7.8%	10.1%	6.4%
Washington - WA	\$21,076	-15.7%	8.4%	13.7%	12.0%	8.2%
Wisconsin - WI	\$15,487	-21.4%	24.9%	7.8%	6.2%	5.0%
West Virginia - WV	\$2,486	55.2%	-15.3%	7.5%	5.7%	4.1%
Wyoming - WY	\$3,024	58.8%	46.4%	-48.1%	7.2%	5.1%
United States	\$961,616	-8.1%	2.8%	8.8%	9.2%	6.9%

*One in three Americans lives in one of the four shaded states, New York, Florida, Texas or California. Sum of first column may not exactly equal total due to rounding.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 6: U.S. Four Largest States: Type-of-Structure Forecasts
(\$ Billions USD)

		Actuals		Forecasts				
		2021	2022	2023	2024	2025	2026	2027
New York	Residential	10.816	15.962	11.754	11.211	12.510	13.277	13.753
	Non-res Building	14.452	18.672	21.494	20.692	18.710	17.868	18.125
	Engineering/Civil	8.009	15.433	11.564	20.120	21.030	22.140	22.975
	Total	33.276	50.067	44.813	52.023	52.250	53.285	54.852
	<i>(Yr vs previous yr % Change)</i>	18.6%	50.5%	-10.5%	16.1%	0.4%	2.0%	2.9%
Florida	Residential	37.566	44.204	37.456	33.721	40.503	48.900	55.247
	Non-res Building	16.816	19.878	18.036	18.808	20.219	21.990	23.097
	Engineering/Civil	8.620	9.561	12.492	16.015	17.320	18.226	18.970
	Total	63.001	73.644	67.984	68.544	78.042	89.116	97.313
	<i>(Yr vs previous yr % Change)</i>	18.2%	16.9%	-7.7%	0.8%	13.9%	14.2%	9.2%
Texas	Residential	55.437	55.654	43.821	41.700	47.488	56.471	64.196
	Non-res Building	30.059	70.572	60.263	51.972	58.076	64.455	69.109
	Engineering/Civil	20.073	27.994	34.465	32.487	35.410	37.503	39.227
	Total	105.569	154.221	138.549	126.159	140.974	158.430	172.532
	<i>(Yr vs previous yr % Change)</i>	8.1%	46.1%	-10.2%	-8.9%	11.7%	12.4%	8.9%
California	Residential	24.620	31.105	20.599	21.530	25.925	30.529	34.833
	Non-res Building	26.429	29.490	28.529	30.623	31.762	32.948	34.232
	Engineering/Civil	14.501	15.376	22.397	23.223	25.434	26.960	28.218
	Total	65.550	75.971	71.525	75.375	83.121	90.437	97.283
	<i>(Yr vs previous yr % Change)</i>	3.1%	15.9%	-5.9%	5.4%	10.3%	8.8%	7.6%

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

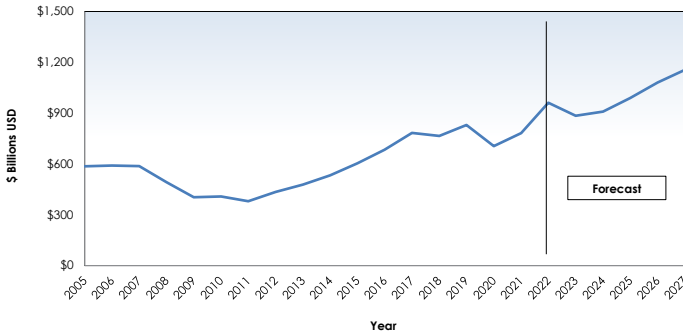
Tweeted by ConstructConnect:

@ConstructConnx

In September, the Consumer Price Index for urban dwellers in the U.S. was +3.7% year over year; in Canada, the CPI was +3.8% y/y

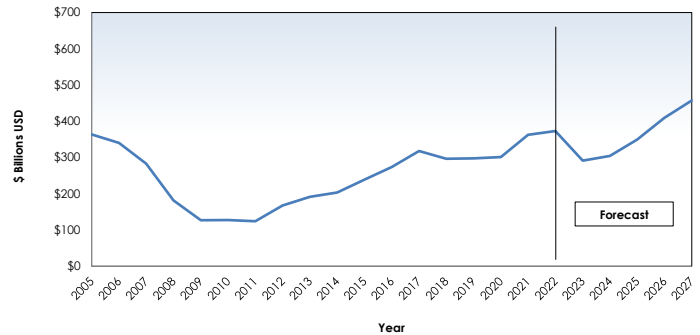


Graph 1: U.S. Grand Total Construction Starts — ConstructConnect



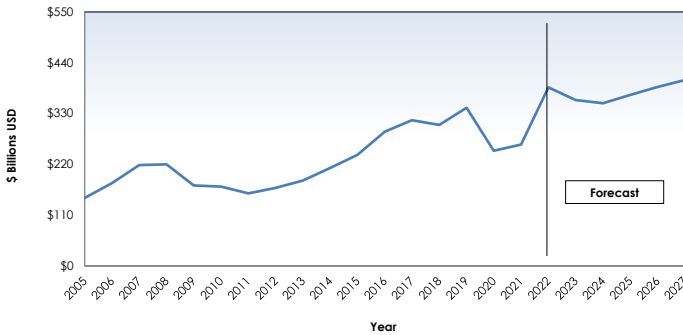
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 2: U.S. Total Residential Construction Starts — ConstructConnect



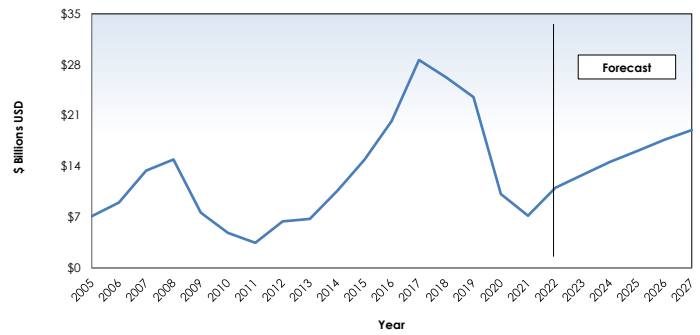
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 3: U.S. Total Non-Residential Building Starts — ConstructConnect



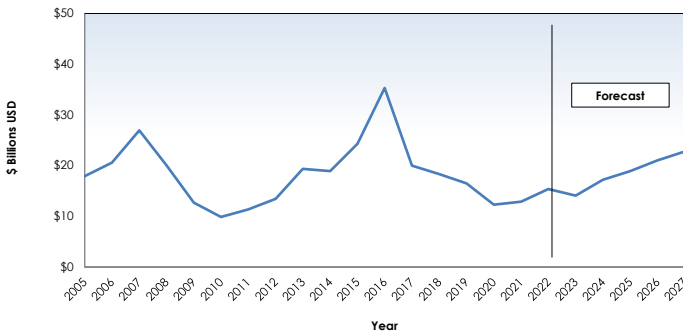
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 4: U.S. Hotel/Motel Construction Starts — ConstructConnect



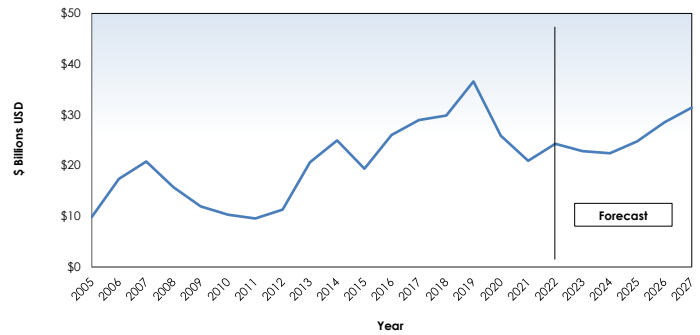
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 5: U.S. Shopping/Retail Construction Starts — ConstructConnect



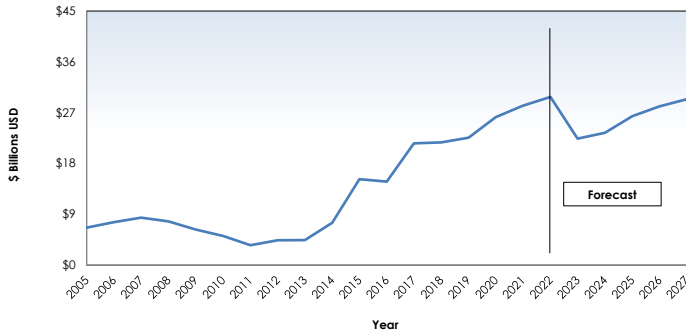
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 6: U.S. Private Office Building Construction Starts — ConstructConnect



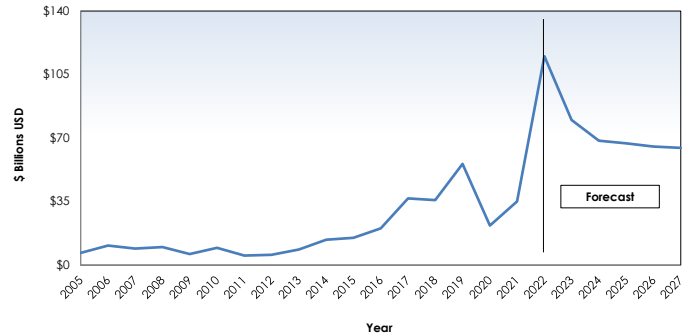
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 7: U.S. Warehouse Construction Starts — ConstructConnect



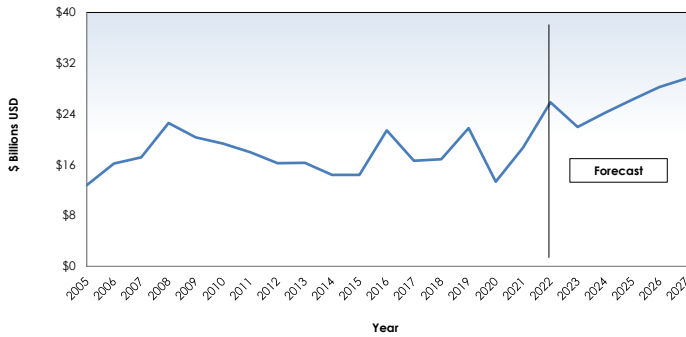
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 8: U.S. Industrial/Manufacturing Construction Starts — ConstructConnect



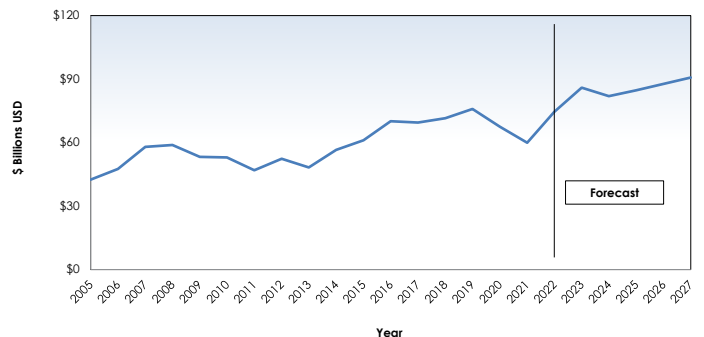
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 9: U.S. Hospital and Clinic Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 10: U.S. Total Educational Construction Starts — ConstructConnect



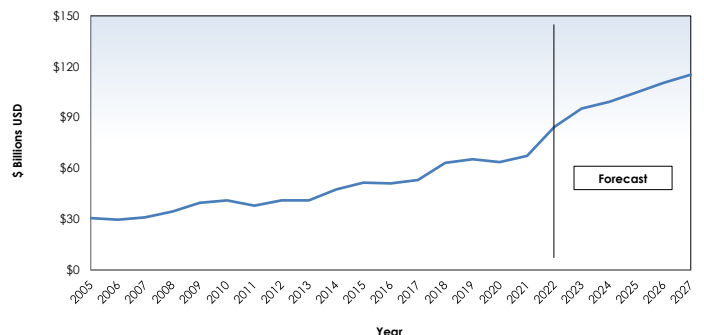
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 11: U.S. Total Heavy Engineering/Civil Construction Starts — ConstructConnect



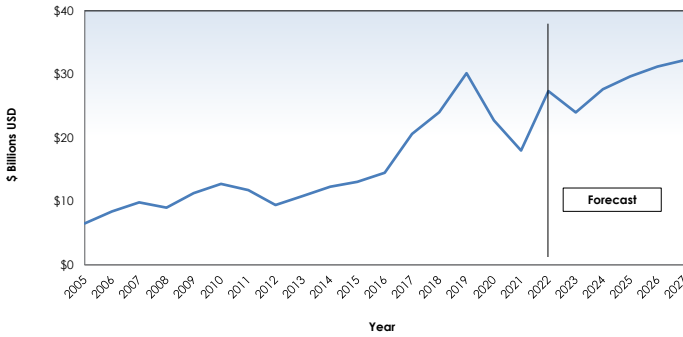
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 12: U.S. Roadwork Construction Starts — ConstructConnect



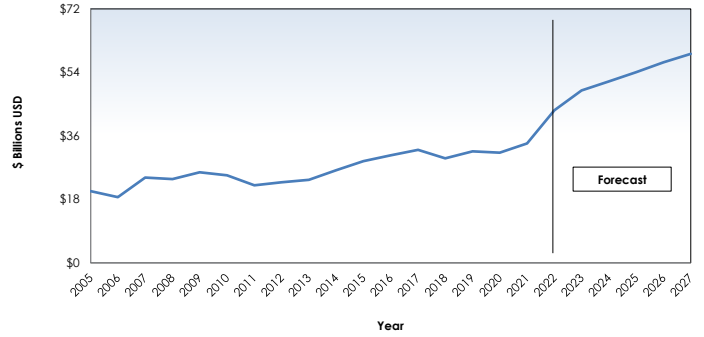
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 13: U.S. Bridge Construction Starts — ConstructConnect



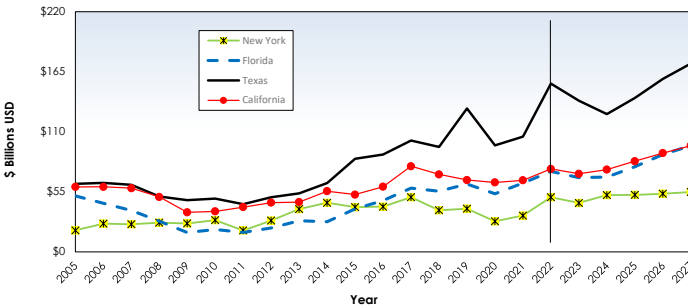
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 14: U.S. Water and Sewage Treatment Construction Starts — ConstructConnect



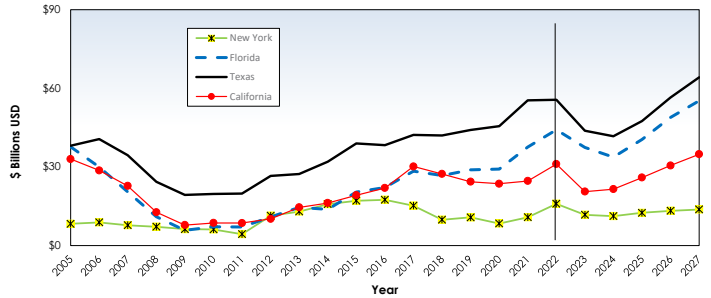
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 15: U.S. Four Largest States (by Population): Total Construction Starts — ConstructConnect



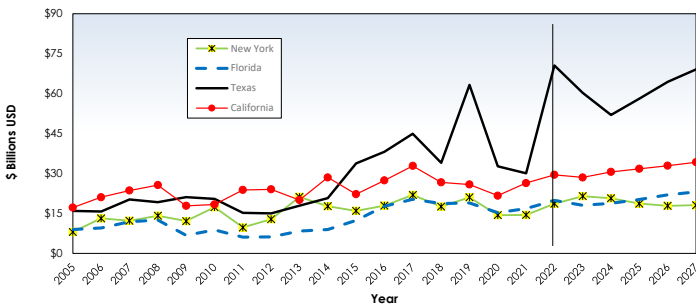
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 16: U.S. Four Largest States: Total Residential Construction Starts — ConstructConnect



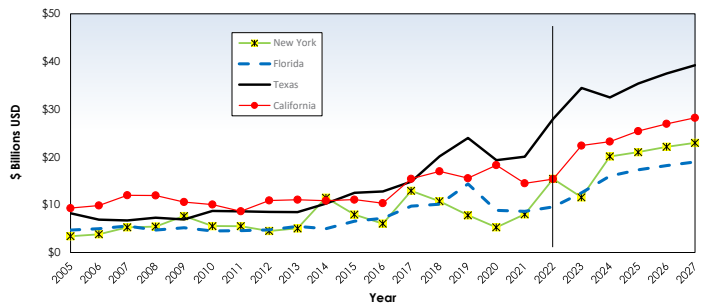
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 17: U.S. Four Largest States: Total Non-residential Building Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 18: U.S. Four Largest States: Total Engineering/Civil Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Table 7: Canada Type-of-Structure Forecasts
(\$ Billions CAD)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Single-family	17.868	15.707	11.714	12.432	14.492	16.744	18.627
Multi-family	18.749	18.568	16.011	17.411	20.127	22.556	24.822
TOTAL RESIDENTIAL	36.617	34.275	27.724	29.843	34.619	39.300	43.449
<i>(Yr/yr % change)</i>	<i>28.9%</i>	<i>-6.4%</i>	<i>-19.1%</i>	<i>7.6%</i>	<i>16.0%</i>	<i>13.5%</i>	<i>10.6%</i>
Hotels/Motels	0.143	0.131	0.586	0.423	0.579	0.669	0.721
Private Offices	1.254	0.765	0.281	0.537	0.915	1.319	1.679
Governmental Offices	1.184	5.153	2.057	2.179	2.306	2.415	2.516
Shopping/Retail	0.359	0.707	0.250	0.652	0.920	1.098	1.276
Retail Miscellaneous	0.078	0.209	0.080	0.153	0.212	0.266	0.321
Parking Garages	0.152	0.098	0.218	0.188	0.208	0.235	0.255
Amusement	2.548	2.361	2.168	2.335	2.667	3.052	3.306
Warehouses	2.367	2.225	2.501	2.486	2.680	2.831	2.935
TOTAL COMMERCIAL	8.085	11.649	8.142	8.953	10.487	11.884	13.008
<i>(Yr/yr % change)</i>	<i>-2.8%</i>	<i>44.1%</i>	<i>-30.1%</i>	<i>10.0%</i>	<i>17.1%</i>	<i>13.3%</i>	<i>9.5%</i>
TOTAL INDUSTRIAL (manufacturing)	11.709	8.406	9.254	10.703	15.850	15.901	10.183
<i>(Yr/yr % change)</i>	<i>377.3%</i>	<i>-28.2%</i>	<i>10.1%</i>	<i>15.7%</i>	<i>48.1%</i>	<i>0.3%</i>	<i>-36.0%</i>
Religious	0.109	0.043	0.076	0.049	0.058	0.063	0.068
Hospitals/Clinics	7.969	3.697	14.876	6.924	8.205	9.414	10.154
MED misc	0.100	0.556	0.318	0.372	0.421	0.479	0.522
Transportation Terminals*	0.348	1.629	0.950	2.894	3.437	3.325	2.873
Police/Fire	1.570	1.268	1.530	1.441	1.738	1.993	2.160
Educational Facilities	7.088	6.747	6.859	7.068	7.448	7.894	8.153
TOTAL INSTITUTIONAL	17.184	13.940	24.611	18.748	21.306	23.167	23.930
<i>(Yr/yr % change)</i>	<i>7.1%</i>	<i>-18.9%</i>	<i>76.5%</i>	<i>-23.8%</i>	<i>13.6%</i>	<i>8.7%</i>	<i>3.3%</i>
TOTAL NON-RES BUILDING	36.979	33.995	42.006	38.404	47.643	50.952	47.121
<i>(Yr/yr % change)</i>	<i>37.9%</i>	<i>-8.1%</i>	<i>23.6%</i>	<i>-8.6%</i>	<i>24.1%</i>	<i>6.9%</i>	<i>-7.5%</i>
Bridges	2.356	3.076	4.690	3.277	3.487	3.666	3.810
Dams/Canal/Marine	0.541	1.097	0.610	0.635	0.729	0.776	0.817
Water & Sewage Treatment	4.838	5.387	4.912	5.469	6.154	6.757	7.219
Roads	10.974	11.795	12.658	13.438	14.294	15.158	15.987
Power Infrastructure	4.403	3.117	3.152	5.974	7.759	8.560	8.876
All Other Civil (Oil & Gas etc.)	5.818	5.310	10.150	13.751	18.450	21.085	21.571
TOTAL ENGINEERING	28.931	29.782	36.171	42.545	50.871	56.003	58.279
<i>(Yr/yr % change)</i>	<i>-13.8%</i>	<i>2.9%</i>	<i>21.5%</i>	<i>17.6%</i>	<i>19.6%</i>	<i>10.1%</i>	<i>4.1%</i>
TOTAL NON-RESIDENTIAL	65.910	63.777	78.177	80.948	98.514	106.955	105.401
<i>(Yr/yr % change)</i>	<i>9.1%</i>	<i>-3.2%</i>	<i>22.6%</i>	<i>3.5%</i>	<i>21.7%</i>	<i>8.6%</i>	<i>-1.5%</i>
GRAND TOTAL	102.526	98.052	105.902	110.792	133.133	146.255	148.850
<i>(Yr/yr % change)</i>	<i>15.5%</i>	<i>-4.4%</i>	<i>8.0%</i>	<i>4.6%</i>	<i>20.2%</i>	<i>9.9%</i>	<i>1.8%</i>

* With respect to Tables 3 and 7, 'transportation terminals' is the one type-of-structure that is categorized differently in Canada (institutional) than in the U.S. (commercial), for reasons having to do with government statistics.

EXPLANATION: Table 7 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 8 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Table 8: Canada Type-of-Structure Forecasts

Arranged to match the alphabetical category drop-down menus in INSIGHT (\$ Billions CAD)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Summary							
CIVIL	28.931	29.782	36.171	42.545	50.871	56.003	58.279
NON-RESIDENTIAL BUILDING	36.979	33.995	42.006	38.404	47.643	50.952	47.121
RESIDENTIAL	36.617	34.275	27.724	29.843	34.619	39.300	43.449
GRAND TOTAL	102.526	98.052	105.902	110.792	133.133	146.255	148.850
Verticals							
All Other Civil	5.818	5.310	10.150	13.751	18.450	21.085	21.571
Bridges	2.356	3.076	4.690	3.277	3.487	3.666	3.810
Dams / Canals / Marine Work	0.541	1.097	0.610	0.635	0.729	0.776	0.817
Power Infrastructure	4.403	3.117	3.152	5.974	7.759	8.560	8.876
Roads	10.974	11.795	12.658	13.438	14.294	15.158	15.987
Water and Sewage Treatment	4.838	5.387	4.912	5.469	6.154	6.757	7.219
CIVIL	28.931	29.782	36.171	42.545	50.871	56.003	58.279
(Yr/yr % change)	-13.8%	2.9%	21.5%	17.6%	19.6%	10.1%	4.1%
Offices (private)	1.254	0.765	0.281	0.537	0.915	1.319	1.679
Parking Garages	0.152	0.098	0.218	0.188	0.208	0.235	0.255
Transportation Terminals	0.348	1.629	0.950	2.894	3.437	3.325	2.873
Commercial	1.754	2.493	1.449	3.619	4.559	4.879	4.807
(Yr/yr % change)	-77.9%	42.1%	-41.9%	149.7%	26.0%	7.0%	-1.5%
Amusement	2.548	2.361	2.168	2.335	2.667	3.052	3.306
Religious	0.109	0.043	0.076	0.049	0.058	0.063	0.068
Community	2.657	2.404	2.244	2.384	2.725	3.115	3.374
(Yr/yr % change)	127.4%	-9.5%	-6.6%	6.2%	14.3%	14.3%	8.3%
Educational	7.088	6.747	6.859	7.068	7.448	7.894	8.153
(Yr/yr % change)	31.2%	-4.8%	1.7%	3.0%	5.4%	6.0%	3.3%
Fire and Police Stations	1.570	1.268	1.530	1.441	1.738	1.993	2.160
Government Offices	1.184	5.153	2.057	2.179	2.306	2.415	2.516
Government	2.754	6.421	3.587	3.620	4.044	4.408	4.676
(Yr/yr % change)	7.5%	133.2%	-44.1%	0.9%	11.7%	9.0%	6.1%
Manufacturing	11.709	8.406	9.254	10.703	15.850	15.901	10.183
Warehouses	2.367	2.225	2.501	2.486	2.680	2.831	2.935
Industrial	14.077	10.631	11.755	13.189	18.530	18.731	13.118
(Yr/yr % change)	185.4%	-24.5%	10.6%	12.2%	40.5%	1.1%	-30.0%
Hospitals / Clinics	7.969	3.697	14.876	6.924	8.205	9.414	10.154
Medical Misc.	0.100	0.556	0.318	0.372	0.421	0.479	0.522
Medical	8.069	4.252	15.195	7.296	8.626	9.892	10.676
(Yr/yr % change)	103.2%	-47.3%	257.3%	-52.0%	18.2%	14.7%	7.9%
Hotels	0.143	0.131	0.586	0.423	0.579	0.669	0.721
Retail Misc.	0.078	0.209	0.080	0.153	0.212	0.266	0.321
Shopping	0.359	0.707	0.250	0.652	0.920	1.098	1.276
Retail	0.580	1.046	0.917	1.228	1.711	2.033	2.318
(Yr/yr % change)	-31.5%	80.3%	-12.4%	34.0%	39.3%	18.8%	14.0%
NON-RESIDENTIAL BUILDING	36.979	33.995	42.006	38.404	47.643	50.952	47.121
(Yr/yr % change)	37.9%	-8.1%	23.6%	-8.6%	24.1%	6.9%	-7.5%
Multi-Family	18.749	18.568	16.011	17.411	20.127	22.556	24.822
Single-Family	17.868	15.707	11.714	12.432	14.492	16.744	18.627
RESIDENTIAL	36.617	34.275	27.724	29.843	34.619	39.300	43.449
(Yr/yr % change)	28.9%	-6.4%	-19.1%	7.6%	16.0%	13.5%	10.6%
TOTAL NON-RESIDENTIAL	65.910	63.777	78.177	80.948	98.514	106.955	105.401
(Yr/yr % change)	9.1%	-3.2%	22.6%	3.5%	21.7%	8.6%	-1.5%
GRAND TOTAL	102.526	98.052	105.902	110.792	133.133	146.255	148.850
(Yr/yr % change)	15.5%	-4.4%	8.0%	4.6%	20.2%	9.9%	1.8%

EXPLANATION: Table 7 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 8 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 9: Canadian Provinces, Total Construction Starts — ConstructConnect

Regions/Provinces (East to West)	Actuals (Level in \$ Millions CAD)	Forecasts (Year versus previous year % change)				
	2022	2023	2024	2025	2026	2027
Atlantic region	\$4,554	6.3%	43.2%	11.6%	8.6%	0.5%
Quebec	\$19,547	11.9%	7.7%	7.2%	3.9%	3.3%
Ontario	\$38,996	-6.7%	-1.4%	15.4%	7.5%	1.1%
Manitoba	\$2,723	0.4%	4.5%	18.7%	10.4%	3.2%
Saskatchewan	\$1,597	56.9%	18.4%	36.9%	11.0%	-3.7%
Alberta	\$15,881	-19.3%	32.7%	29.4%	21.9%	5.4%
British Columbia	\$14,754	67.9%	-12.8%	35.5%	9.4%	-0.6%
Canada	\$98,052	8.0%	4.6%	20.2%	9.9%	1.8%

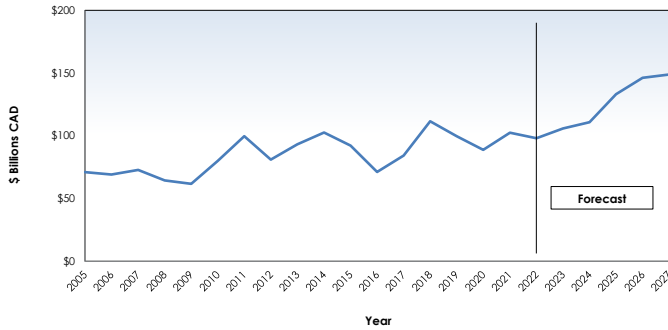
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Table 10: Canada Four Largest Provinces: Type-of-Structure Forecasts
(\$ Billions CAD)

		Actuals		Forecasts				
		2021	2022	2023	2024	2025	2026	2027
Quebec	Residential	6.874	4.752		5.733	5.867	6.476	7.270
	Non-res Building	9.588	7.223	9.487	8.857	9.730	10.049	9.705
	Engineering/Civil	5.678	7.572	9.661	8.966	9.664	9.723	10.129
	Total	22.140	19.547	21.864	23.555	25.261	26.248	27.104
	(Yr vs previous yr % Change)	31.1%	-11.7%	11.9%	7.7%	7.2%	3.9%	3.3%
Ontario	Residential	15.988	13.861	12.140	12.017	14.687	16.022	16.939
	Non-res Building	7.489	16.695	16.219	12.456	14.001	15.071	14.111
	Engineering/Civil	8.183	8.441	8.019	11.403	12.709	13.411	13.935
	Total	31.659	38.996	36.379	35.877	41.397	44.504	44.985
	(Yr vs previous yr % Change)	-11.3%	23.2%	-6.7%	-1.4%	15.4%	7.5%	1.1%
Alberta	Residential	4.792	4.601	4.273	3.809	4.518	6.067	6.902
	Non-res Building	2.557	3.735	3.503	4.239	5.865	6.298	6.230
	Engineering/Civil	8.767	7.545	5.034	8.954	11.622	14.451	15.120
	Total	16.115	15.881	12.810	17.002	22.005	26.816	28.253
	(Yr vs previous yr % Change)	26.0%	-1.5%	-19.3%	32.7%	29.4%	21.9%	5.4%
British Columbia	Residential	6.277	8.173	6.176	6.603	7.514	8.433	9.776
	Non-res Building	7.397	4.073	9.046	7.497	10.997	11.792	9.839
	Engineering/Civil	1.925	2.507	9.545	7.500	10.767	11.806	12.240
	Total	15.600	14.754	24.767	21.601	29.278	32.031	31.854
	(Yr vs previous yr % Change)	-3.3%	-5.4%	67.9%	-12.8%	35.5%	9.4%	-0.6%

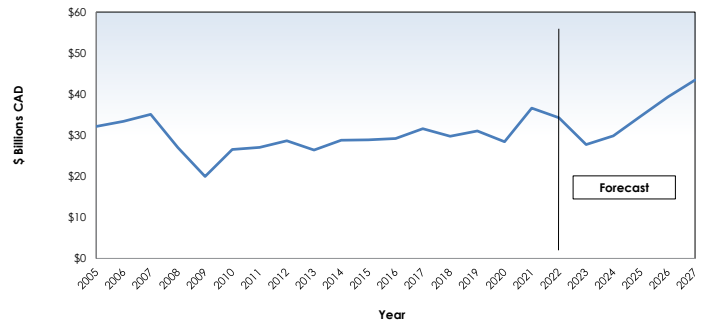
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Graph 19: Canadian Grand Total Construction Starts — ConstructConnect



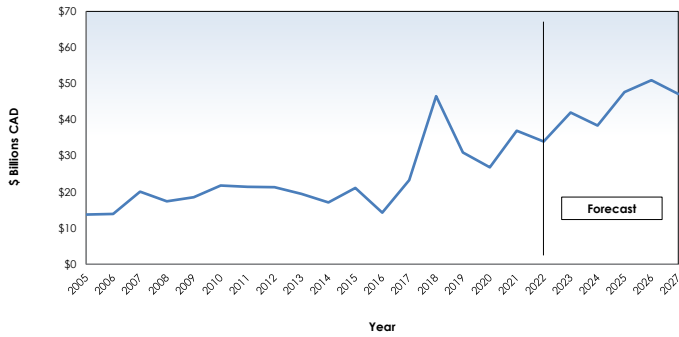
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 20: Canadian Residential Construction Starts — ConstructConnect



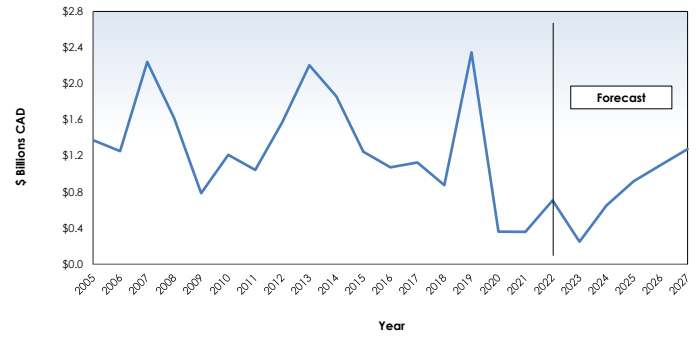
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 21: Canadian Non-Residential Building Starts — ConstructConnect



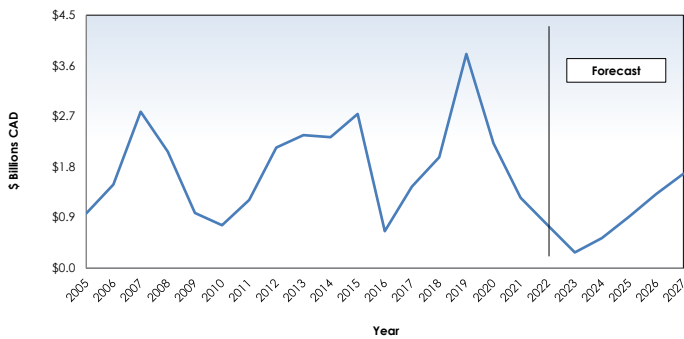
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 22: Canadian Shopping/Retail Construction Starts — ConstructConnect



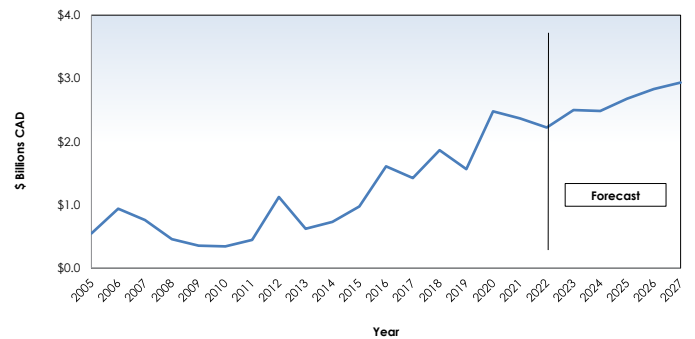
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 23: Canadian Private Offices Construction Starts — ConstructConnect



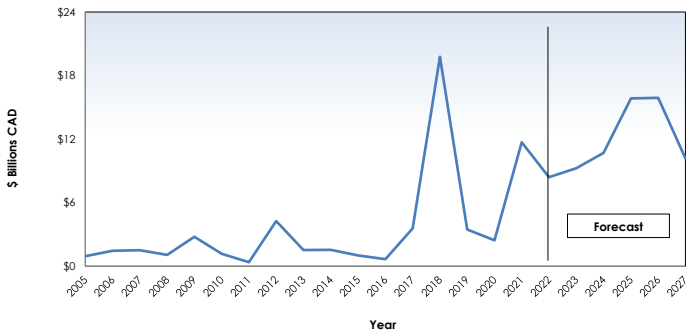
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 24: Canadian Warehouse Construction Starts — ConstructConnect



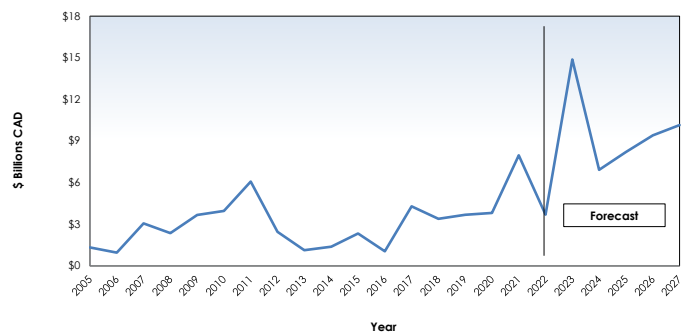
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 25: Canadian Industrial/Manufacturing Construction Starts — ConstructConnect



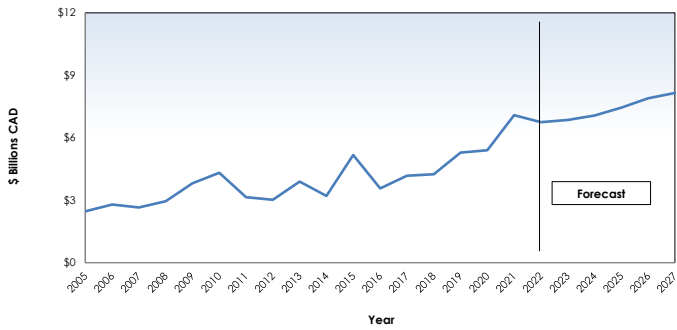
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 26: Canadian Hospital/Clinic Construction Starts — ConstructConnect



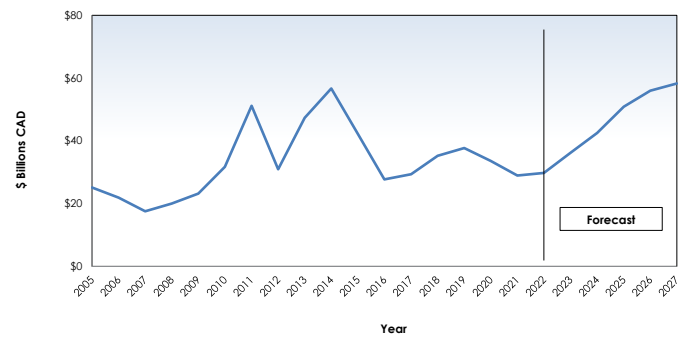
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 27: Canadian Education Construction Starts — ConstructConnect



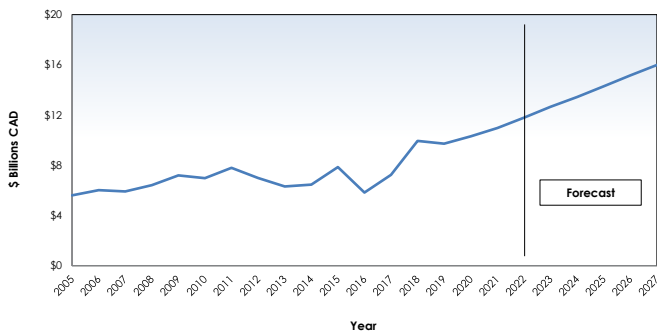
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 28: Canadian Engineering Construction Starts — ConstructConnect



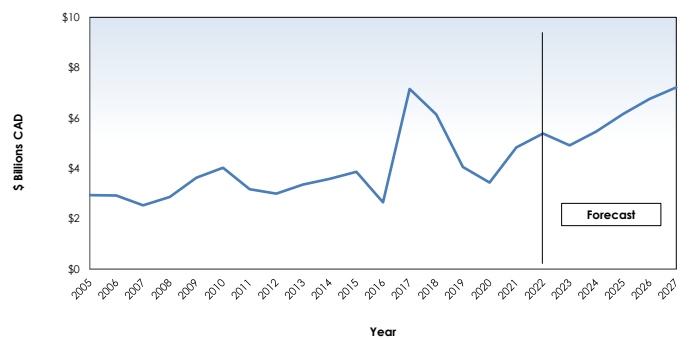
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 29: Canadian Roadwork Construction Starts — ConstructConnect



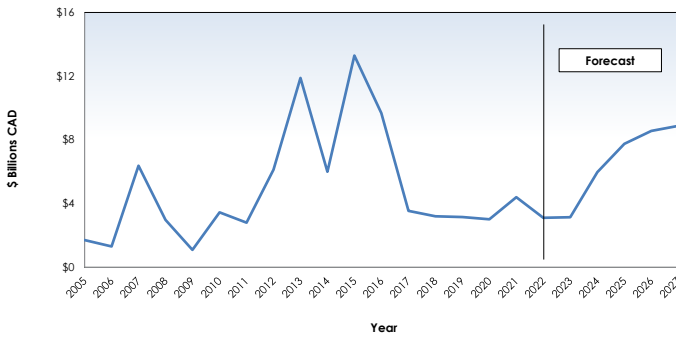
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 30: Canadian Water and Sewage Construction Starts — ConstructConnect



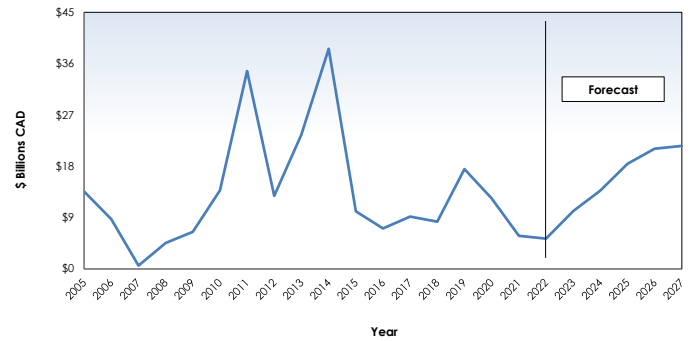
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 31: Canadian Power Infrastructure Construction Starts — ConstructConnect



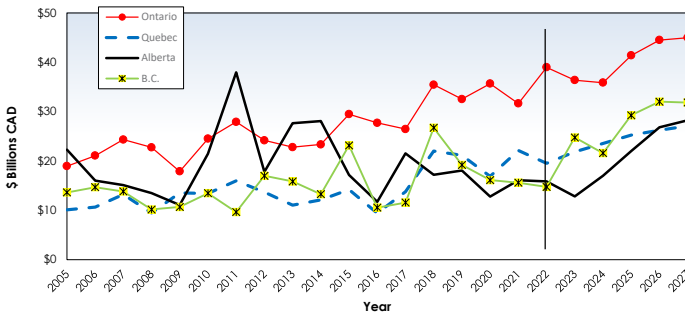
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 32: Canada All Other Civil (Oil Sands, Tunnels, RRs) Construction Starts — ConstructConnect



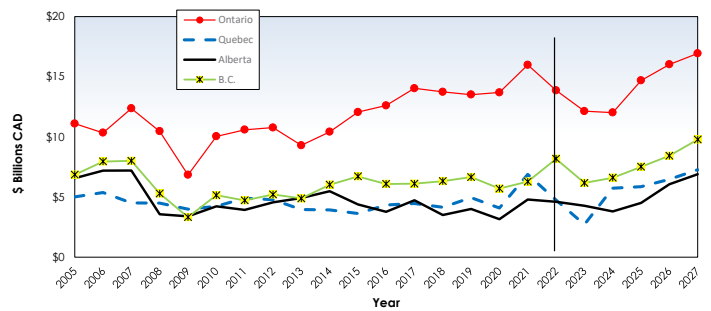
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 33: Canada Four Largest Provinces (by Population): Total Construction Starts — ConstructConnect



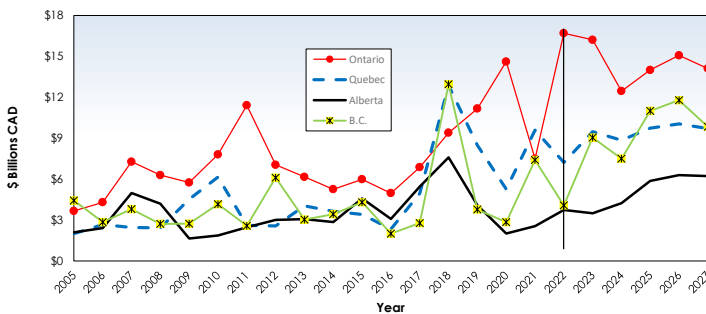
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 34: Canada Four Largest Provinces: Total Residential Construction Starts — ConstructConnect



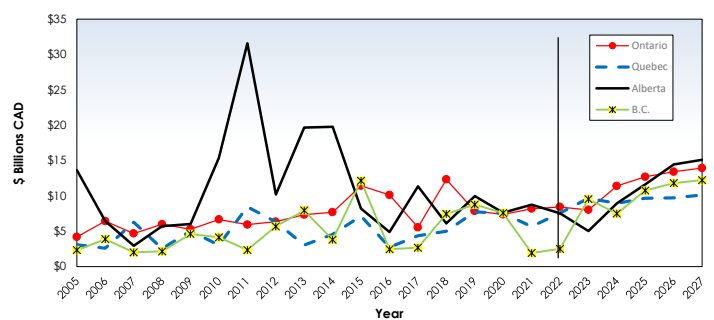
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 35: Canada Four Largest Provinces: Total Non-residential Building Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 36: Canada Four Largest Provinces: Total Engineering/Civil Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Table 11: U.S. Type-of-Structure Forecasts
(Square Feet Millions)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Single-family	2,130.8	1,860.1	1,619.1	1,659.3	1,824.2	2,102.8	2,366.2
Multi-family	575.7	763.6	450.8	488.3	605.9	725.7	800.9
TOTAL RESIDENTIAL	2,706.5	2,623.6	2,069.9	2,147.6	2,430.1	2,828.5	3,167.1
<i>(Yr/yr % change)</i>	<i>18.6%</i>	<i>-3.1%</i>	<i>-21.1%</i>	<i>3.8%</i>	<i>13.2%</i>	<i>16.4%</i>	<i>12.0%</i>
Hotels/Motels	30.8	43.7	46.3	54.6	63.4	72.4	80.7
Shopping/Retail	48.7	55.3	40.3	53.8	70.7	88.6	105.4
Parking Garages	15.0	18.9	16.4	18.2	21.3	24.2	27.1
Amusement	22.5	22.0	25.7	24.8	25.2	26.5	28.0
Private Offices	71.9	83.2	66.6	64.7	75.6	90.0	102.0
Governmental Offices	16.4	16.8	17.4	16.7	18.3	19.8	21.2
Laboratories (Schools & Industrial)	5.5	9.6	6.8	7.0	7.9	8.3	8.7
Warehouses	267.3	250.8	174.1	191.3	220.5	238.2	249.1
Sports Stadium/Convention Center	14.2	14.9	15.4	18.0	19.0	19.0	17.5
Transportation Terminals	8.2	6.3	7.3	11.9	13.2	12.9	12.4
TOTAL COMMERCIAL	500.5	521.5	416.4	460.9	535.0	599.9	652.1
<i>(Yr/yr % change)</i>	<i>5.4%</i>	<i>4.2%</i>	<i>-20.2%</i>	<i>10.7%</i>	<i>16.1%</i>	<i>12.1%</i>	<i>8.7%</i>
TOTAL INDUSTRIAL (manufacturing)	92.4	210.0	116.6	90.9	89.6	87.4	86.5
<i>(Yr/yr % change)</i>	<i>28.7%</i>	<i>127.4%</i>	<i>-44.5%</i>	<i>-22.0%</i>	<i>-1.4%</i>	<i>-2.4%</i>	<i>-1.1%</i>
Religious	3.4	3.0	2.5	3.1	3.6	4.3	5.0
Hospitals/Clinics	23.8	27.3	22.0	30.7	37.9	46.1	54.9
Nursing Homes/Assisted Living	23.4	16.5	7.1	11.6	16.2	21.5	27.0
Libraries/Museums	6.4	3.1	5.3	3.9	3.8	3.9	4.1
Courthouse	4.4	1.9	2.6	2.2	2.5	2.8	3.1
Police/Fire	7.3	8.2	8.9	9.3	9.7	10.1	10.6
Prisons	1.7	4.2	10.9	5.1	5.6	5.9	6.2
Military	20.0	10.8	24.7	21.2	20.1	20.7	21.4
Educational Facilities	122.4	140.5	144.8	144.2	151.3	159.0	167.2
MED misc	15.4	18.9	11.5	14.3	16.8	18.3	19.5
TOTAL INSTITUTIONAL	228.1	234.4	240.3	245.6	267.6	292.7	318.9
<i>(Yr/yr % change)</i>	<i>-10.5%</i>	<i>2.8%</i>	<i>2.5%</i>	<i>2.2%</i>	<i>8.9%</i>	<i>9.4%</i>	<i>8.9%</i>
Miscellaneous Non-Res Building	21.2	22.4	19.0	20.5	21.7	22.8	23.9
TOTAL NON-RES BLDG	842.1	988.4	792.2	817.9	913.8	1,002.9	1,081.3
<i>(Yr/yr % change)</i>	<i>2.5%</i>	<i>17.4%</i>	<i>-19.8%</i>	<i>3.2%</i>	<i>11.7%</i>	<i>9.7%</i>	<i>7.8%</i>
RESIDENTIAL + NON-RES BLDG	3,548.6	3,612.0	2,862.1	2,965.4	3,344.0	3,831.4	4,248.4
<i>(Yr/yr % change)</i>	<i>14.3%</i>	<i>1.8%</i>	<i>-20.8%</i>	<i>3.6%</i>	<i>12.8%</i>	<i>14.6%</i>	<i>10.9%</i>

EXPLANATION: Table 11 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 12 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

The square footage forecasts are largely determined by dividing the dollar value forecasts by an average dollar-per-square-foot value. The underlying dollar-per-square-foot calculation is based on the most relevant of current data. While the projected dollar values are generated through econometric modeling driven by key economic and demographic variables, both the dollar value and square footage forecasts also allow for discretionary overrides when warranted by extraordinary circumstances, such as unique mega project start-ups.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 12: U.S. Type-of-Structure Forecasts

Arranged to match the alphabetical category drop-down menus in INSIGHT (Square Feet Millions)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Summary							
NON-RESIDENTIAL BUILDING	842.1	988.4	792.2	817.9	913.8	1,002.9	1,081.3
RESIDENTIAL	2,706.5	2,623.6	2,069.9	2,147.6	2,430.1	2,828.5	3,167.1
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,548.6	3,612.0	2,862.1	2,965.4	3,344.0	3,831.4	4,248.4
Verticals							
Offices (private)	71.9	83.2	66.6	64.7	75.6	90.0	102.0
Parking Garages	15.0	18.9	16.4	18.2	21.3	24.2	27.1
Transportation Terminals	8.2	6.3	7.3	11.9	13.2	12.9	12.4
Commercial	95.2	108.5	90.4	94.8	110.1	127.0	141.5
(Yr/yr % change)	-2.7%	14.0%	-16.7%	4.8%	16.2%	15.3%	11.4%
Amusement	22.5	22.0	25.7	24.8	25.2	26.5	28.0
Libraries / Museums	6.4	3.1	5.3	3.9	3.8	3.9	4.1
Religious	3.4	3.0	2.5	3.1	3.6	4.3	5.0
Sports Arenas / Convention Centers	14.2	14.9	15.4	18.0	19.0	19.0	17.5
Community	46.4	43.0	48.9	49.8	51.6	53.8	54.6
(Yr/yr % change)	13.1%	-7.5%	13.8%	1.8%	3.8%	4.1%	1.6%
College / University	24.9	30.8	32.0	30.7	33.5	36.6	39.6
Elementary / Pre School	35.2	43.9	45.3	48.5	49.6	51.3	53.7
Jr / Sr High School	56.4	60.6	62.5	60.2	63.0	65.7	68.2
Special / Vocational	5.9	5.3	4.9	4.9	5.2	5.4	5.6
Educational	122.4	140.5	144.8	144.2	151.3	159.0	167.2
(Yr/yr % change)	-16.7%	14.8%	3.0%	-0.4%	4.9%	5.1%	5.1%
Courthouses	4.4	1.9	2.6	2.2	2.5	2.8	3.1
Fire and Police Stations	7.3	8.2	8.9	9.3	9.7	10.1	10.6
Government Offices	16.4	16.8	17.4	16.7	18.3	19.8	21.2
Prisons	1.7	4.2	10.9	5.1	5.6	5.9	6.2
Government	29.7	31.1	39.9	33.3	36.1	38.7	41.1
(Yr/yr % change)	10.5%	4.8%	28.0%	-16.4%	8.3%	7.1%	6.2%
Industrial Labs / Labs / School Labs	5.5	9.6	6.8	7.0	7.9	8.3	8.7
Manufacturing	92.4	210.0	116.6	90.9	89.6	87.4	86.5
Warehouses	267.3	250.8	174.1	191.3	220.5	238.2	249.1
Industrial	365.1	470.4	297.5	289.2	318.0	334.0	344.2
(Yr/yr % change)	19.2%	28.8%	-36.7%	-2.8%	10.0%	5.0%	3.1%
Hospitals / Clinics	23.8	27.3	22.0	30.7	37.9	46.1	54.9
Medical Misc.	15.4	18.9	11.5	14.3	16.8	18.3	19.5
Nursing Homes	23.4	16.5	7.1	11.6	16.2	21.5	27.0
Medical	62.6	62.7	40.6	56.6	70.9	85.9	101.4
(Yr/yr % change)	-3.2%	0.1%	-35.2%	39.4%	25.2%	21.3%	18.0%
Military	20.0	10.8	24.7	21.2	20.1	20.7	21.4
(Yr/yr % change)	-10.1%	-45.7%	128.1%	-14.0%	-5.2%	2.9%	3.4%
Hotels	30.8	43.7	46.3	54.6	63.4	72.4	80.7
Retail Misc.	21.2	22.4	19.0	20.5	21.7	22.8	23.9
Shopping	48.7	55.3	40.3	53.8	70.7	88.6	105.4
Retail	100.6	121.4	105.5	128.8	155.7	183.8	210.0
(Yr/yr % change)	-13.0%	20.6%	-13.1%	22.1%	20.9%	18.0%	14.3%
NON-RESIDENTIAL BUILDING	842.1	988.4	792.2	817.9	913.8	1,002.9	1,081.3
(Yr/yr % change)	2.5%	17.4%	-19.8%	3.2%	11.7%	9.7%	7.8%
Multi-Family	575.7	763.6	450.8	488.3	605.9	725.7	800.9
Single-Family	2,130.8	1,860.1	1,619.1	1,659.3	1,824.2	2,102.8	2,366.2
RESIDENTIAL	2,706.5	2,623.6	2,069.9	2,147.6	2,430.1	2,828.5	3,167.1
(Yr/yr % change)	18.6%	-3.1%	-21.1%	3.8%	13.2%	16.4%	12.0%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,548.6	3,612.0	2,862.1	2,965.4	3,344.0	3,831.4	4,248.4
(Yr/yr % change)	14.3%	1.8%	-20.8%	3.6%	12.8%	14.6%	10.9%

EXPLANATION: Table 11 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 12 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 13: Canada Type-of-Structure Forecasts
(Square Feet Millions)

	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Single-family	154.2	135.4	99.9	106.3	124.8	144.4	160.7
Multi-family	86.6	86.8	74.9	81.2	92.0	102.6	112.8
TOTAL RESIDENTIAL	240.8	222.3	174.8	187.5	216.8	247.0	273.4
<i>(Yr/yr % change)</i>	<i>28.1%</i>	<i>-7.7%</i>	<i>-21.4%</i>	<i>7.3%</i>	<i>15.6%</i>	<i>13.9%</i>	<i>10.7%</i>
Hotels/Motels	0.7	0.5	1.1	1.0	1.7	2.2	2.5
Private Offices	5.4	3.1	0.6	1.5	2.7	4.2	6.0
Governmental Offices	1.2	1.5	1.5	1.5	1.6	1.6	1.7
Shopping/Retail	2.7	3.6	1.0	2.4	4.2	6.0	7.2
Retail Miscellaneous	0.4	0.7	0.3	0.4	0.6	0.7	0.8
Parking Garages	0.5	0.2	0.6	0.6	0.7	0.7	0.8
Amusement	3.7	3.4	3.6	3.4	4.0	4.9	5.8
Warehouses	14.4	15.4	13.6	14.1	15.7	16.7	17.4
TOTAL COMMERCIAL	29.0	28.5	22.3	24.9	31.1	37.2	42.2
<i>(Yr/yr % change)</i>	<i>13.6%</i>	<i>-1.4%</i>	<i>-21.8%</i>	<i>11.5%</i>	<i>24.9%</i>	<i>19.4%</i>	<i>13.6%</i>
TOTAL INDUSTRIAL (manufacturing)	5.6	7.1	5.7	6.4	8.1	8.0	5.7
<i>(Yr/yr % change)</i>	<i>7.9%</i>	<i>26.1%</i>	<i>-19.7%</i>	<i>12.0%</i>	<i>26.6%</i>	<i>-0.9%</i>	<i>-28.4%</i>
Religious	0.4	0.1	0.1	0.1	0.2	0.2	0.3
Hospitals/Clinics	10.2	5.8	14.1	7.4	8.4	9.5	10.3
MED misc	0.2	1.3	0.3	0.5	0.6	0.8	1.0
Transportation Terminals*	0.2	1.1	0.5	1.7	2.2	2.2	1.9
Police/Fire	1.8	1.5	2.6	1.9	2.1	2.3	2.5
Educational Facilities	14.0	10.7	9.8	11.0	12.3	13.3	14.1
TOTAL INSTITUTIONAL	26.8	20.5	27.4	22.5	25.7	28.4	30.1
<i>(Yr/yr % change)</i>	<i>26.7%</i>	<i>-23.6%</i>	<i>33.9%</i>	<i>-17.8%</i>	<i>14.3%</i>	<i>10.2%</i>	<i>5.9%</i>
TOTAL NON-RES BLDG	61.4	56.1	55.4	53.8	64.9	73.5	78.0
<i>(Yr/yr % change)</i>	<i>18.4%</i>	<i>-8.6%</i>	<i>-1.2%</i>	<i>-3.0%</i>	<i>20.7%</i>	<i>13.3%</i>	<i>6.1%</i>
RESIDENTIAL + NON-RES BLDG	302.1	278.4	230.2	241.3	281.7	320.5	351.4
<i>(Yr/yr % change)</i>	<i>26.0%</i>	<i>-7.9%</i>	<i>-17.3%</i>	<i>4.8%</i>	<i>16.7%</i>	<i>13.8%</i>	<i>9.7%</i>

* With respect to Tables 11 and 13, 'transportation terminals' is the one type-of-structure that is categorized differently in Canada (institutional) than in the U.S. (commercial), for reasons having to do with government statistics.

EXPLANATION: Table 13 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 14 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 14: Canada Type-of-Structure Forecasts

Arranged to match the alphabetical category drop-down menus in INSIGHT (Square Feet Millions)

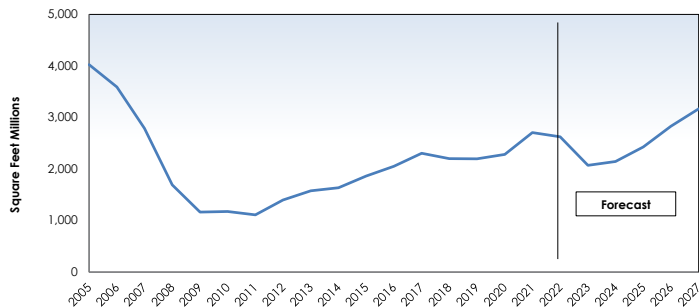
	Actuals		Forecasts				
	2021	2022	2023	2024	2025	2026	2027
Summary							
NON-RESIDENTIAL BUILDING	61.4	56.1	55.4	53.8	64.9	73.5	78.0
RESIDENTIAL	240.8	222.3	174.8	187.5	216.8	247.0	273.4
RESIDENTIAL + NON-RESIDENTIAL BUILDING	302.1	278.4	230.2	241.3	281.7	320.5	351.4
Verticals							
Offices (private)	5.4	3.1	0.6	1.5	2.7	4.2	6.0
Parking Garages	0.5	0.2	0.6	0.6	0.7	0.7	0.8
Transportation Terminals	0.2	1.1	0.5	1.7	2.2	2.2	1.9
Commercial	6.1	4.5	1.7	3.8	5.6	7.1	8.7
(Yr/Yr % change)	-4.7%	-25.8%	-62.7%	126.4%	46.3%	28.1%	21.4%
Amusement	3.7	3.4	3.6	3.4	4.0	4.9	5.8
Religious	0.4	0.1	0.1	0.1	0.2	0.2	0.3
Community	4.1	3.5	3.6	3.5	4.2	5.1	6.1
(Yr/Yr % change)	135.2%	-14.3%	3.8%	-3.7%	19.1%	23.2%	18.3%
Educational	14.0	10.7	9.8	11.0	12.3	13.3	14.1
(Yr/Yr % change)	34.0%	-23.3%	-9.1%	12.5%	11.6%	8.4%	6.2%
Fire and Police Stations	1.8	1.5	2.6	1.9	2.1	2.3	2.5
Government Offices	1.2	1.5	1.5	1.5	1.6	1.6	1.7
Government	3.0	2.9	4.2	3.4	3.7	4.0	4.2
(Yr/Yr % change)	-15.8%	-1.1%	40.9%	-19.1%	8.6%	8.6%	6.0%
Manufacturing	5.6	7.1	5.7	6.4	8.1	8.0	5.7
Warehouses	14.4	15.4	13.6	14.1	15.7	16.7	17.4
Industrial	20.0	22.5	19.3	20.5	23.8	24.7	23.1
(Yr/Yr % change)	19.6%	12.3%	-14.0%	5.8%	16.2%	4.0%	-6.6%
Hospitals / Clinics	10.2	5.8	14.1	7.4	8.4	9.5	10.3
Medical Misc.	0.2	1.3	0.3	0.5	0.6	0.8	1.0
Medical	10.5	7.1	14.5	7.8	9.0	10.3	11.2
(Yr/Yr % change)	25.7%	-32.5%	104.9%	-45.8%	15.1%	14.5%	8.7%
Hotels	0.7	0.5	1.1	1.0	1.7	2.2	2.5
Retail Misc.	0.4	0.7	0.3	0.4	0.6	0.7	0.8
Shopping	2.7	3.6	1.0	2.4	4.2	6.0	7.2
Retail	3.7	4.8	2.4	3.8	6.5	8.9	10.6
(Yr/Yr % change)	-19.7%	29.6%	-50.4%	60.0%	68.6%	37.9%	18.5%
NON-RESIDENTIAL BUILDING	61.4	56.1	55.4	53.8	64.9	73.5	78.0
(Yr/Yr % change)	18.4%	-8.6%	-1.2%	-3.0%	20.7%	13.3%	6.1%
Multi-Family	86.6	86.8	74.9	81.2	92.0	102.6	112.8
Single-Family	154.2	135.4	99.9	106.3	124.8	144.4	160.7
RESIDENTIAL	240.8	222.3	174.8	187.5	216.8	247.0	273.4
(Yr/Yr % change)	28.1%	-7.7%	-21.4%	7.3%	15.6%	13.9%	10.7%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	302.1	278.4	230.2	241.3	281.7	320.5	351.4
(Yr/Yr % change)	26.0%	-7.9%	-17.3%	4.8%	16.7%	13.8%	9.7%

EXPLANATION: Table 13 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 14 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

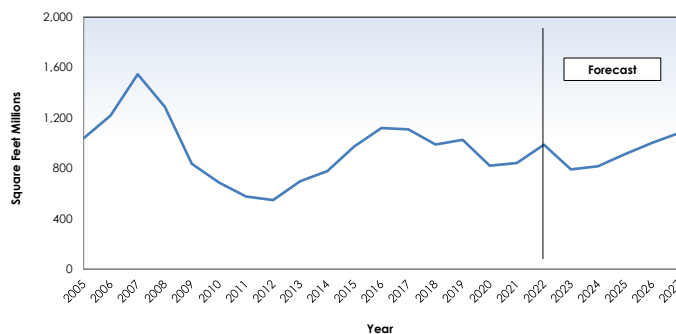
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Graph 37: U.S. Residential Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 38: U.S. Non-Residential Building Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 39: U.S. Residential + Non-Residential Building Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 40: Canada Residential + Non-Residential Building Construction Starts — ConstructConnect



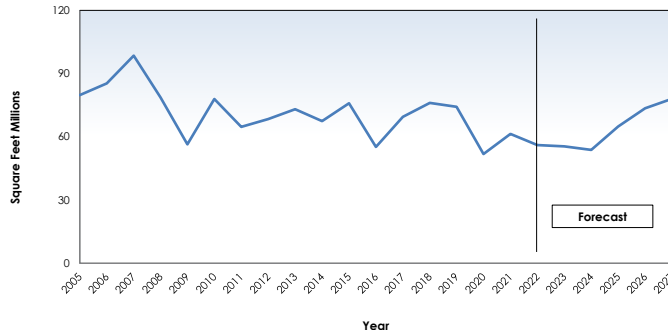
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 41: Canada Residential Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 42: Canada Non-Residential Building Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

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