

Spring 2022 (For January 2022 Release)

Construction Starts Forecast

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Highlights

- US construction starts grew 5.9% in 2021 with mixed results across the three headline sectors. New homebuilding increased 14.5% on the year, non-residential building declined 1.3%, while civil engineering grew by a modest 0.9%. In Q4, however, construction fell 3.4% year-on-year (y/y) with y/y declines in all headline sectors.
- GDP growth accelerated in Q4 2021, taking full-year growth for 2021 to 5.7%. The deteriorating health situation will lead to a lull in economic activity in Q1, but we expect a rebound in the spring led by a return to in-person services, with GDP expected to rise 4% in 2022. Inflation has jumped to nearly a 40-year high, and as a result, we expect the Fed to start raising rates in March.
- The recovery in construction starts is expected to strengthen in 2022, with growth forecast at 12.9%. Following divergent patterns across the subsectors last year, growth is expected to be more broad-based this year. Residential construction starts are forecast to grow by 11.2%, non-residential building starts by 12.9%, and engineering starts by 16.5%.
- Total Canadian construction starts grew 6.5% in 2021, after groundbreaking on a large potash mine in Saskatchewan boosted the industrial sector at the end of the year. A 19.7% increase in residential construction and a 22.5% rise in non-residential building were partially offset by a 17% contraction in engineering starts.
- We forecast Canadian construction starts will accelerate this year, growing 16.3%. Growth this year is expected to be broad based with only the industrial and hospital subsectors posting an annual decline after strong growth in 2021. Robust growth of 13.3% is expected to continue into 2023.

Sources: ConstructConnect®/Oxford Economics.
Forecast reflects actual starts through Q4 2021.

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Overview

New construction returns to growth in 2021

Total US construction starts increased 5.9% in 2021 following a 15% decline in 2020. There were divergent outcomes across the three headline sectors of residential building, non-residential building, and civil engineering. New homebuilding increased 14.5% on the year, non-residential building declined 1.3%, while civil engineering grew by a modest 0.9%. In Q4, however, new construction declined in year-on-year (y/y) terms in all three headline sectors for the first time since the peak of the pandemic in Q2 2020. Total construction was down 3.4% y/y, with annual declines between 1% and 5% in the three headline sectors.

Non-residential building starts fell 2.4% y/y in Q4. There were three mega projects – projects valued at over \$1 billion – during the quarter: a new \$1.2 billion LA Clippers Arena (classified under sports & convention centers), a \$1.3 billion methanol plant in Louisiana (classified in manufacturing), and a \$3.4 billion airport terminal in San Diego (classified in transportation terminals). All three categories with mega projects saw y/y increases, with nearly a 1770% increase in new transport terminals and over a 250% rise in sports & convention center building. Other categories seeing y/y increases of more than 40% include special & vocational education and military construction. However, there were steep contractions of more than 40% y/y in a number of segments, including private office building, religious buildings, industrial labs, nursing homes & assisted living facilities, and miscellaneous medical. The pandemic-related scarring on non-residential building has been stark; sector starts were still some 28% below their 2019 level in 2021, with deeper scarring of over 50% in sectors such as private office building and hotels.

Engineering construction starts fell 1.4% y/y in Q4, with annual declines posted in all sectors except dams, canals & marine work and water, sewage & treatment. Production was also weak in the same period in 2020, so this was not just the result of large projects falling out of the y/y calculation. However, major projects in power infrastructure earlier in the year meant the sector grew over 90%, and ‘roads,’ ‘water, sewage and treatment’ and ‘dams, canals and marine work’ also grew in 2021.

Residential construction fell 4.9% y/y in Q4, the first annual decline since Q2 2020. Both single-family and multi-family starts contracted, by 2.5% and 12% respectively. However, strong growth through most of 2021 underpinned a 14.5% rise in total new residential activity for the year as a whole,

	2020	2021	2022	2023	2024	2025	2026
US							
Macro variables							
GDP	-3.4	5.7	4.0	2.5	1.9	2.0	1.9
Population growth	0.4	0.2	0.4	0.5	0.5	0.5	0.5
Unemployment rate (%)	8.1	5.4	3.8	3.6	3.5	3.5	3.5
Real disposable income	6.2	2.4	-2.4	2.2	1.7	1.6	1.6
Central bank rate (%)	0.4	0.1	0.4	1.2	1.8	2.0	2.0
10-year government yield (%)	0.9	1.4	2.1	2.4	2.6	2.6	2.7
Construction starts (% growth in U.S.\$)							
Total starts	-15.0	5.9	12.9	9.6	7.9	6.5	5.1
Residential	1.2	14.5	11.2	7.7	6.8	6.3	6.2
Non-res bldg	-27.2	-1.3	12.9	10.4	8.3	6.4	4.3
Civil engineering	-18.3	0.9	16.5	12.2	9.3	7.0	4.2
Canada							
Macro variables							
GDP	-5.2	4.6	4.1	3.3	1.6	1.8	1.7
Population growth	1.2	0.7	1.1	1.1	1.0	1.0	1.0
Unemployment rate (%)	9.6	7.4	6.3	6.3	6.0	6.0	6.0
Real disposable income	8.4	0.6	-1.2	2.0	1.5	1.5	1.6
Central bank rate (%)	0.6	0.3	0.4	1.2	1.7	2.0	2.0
10-year government yield (%)	0.8	1.4	2.0	2.6	2.7	2.7	2.8
Exchange rate C\$ per US\$	1.34	1.25	1.27	1.25	1.22	1.19	1.18
Construction starts (% growth in C\$)							
Total starts	-12.5	6.5	16.3	13.3	7.4	5.9	4.6
Residential	-12.9	19.7	5.3	7.5	4.8	3.6	2.9
Non-res bldg	-12.1	22.5	10.7	12.9	7.5	6.3	5.4
Civil engineering	-12.4	-17.0	35.8	19.0	9.5	7.4	5.2

with a 16.9% increase in single-family homebuilding and an 8.1% rise in new apartment construction.

Put-in-place (PIP) construction, a measure of work-in-progress, increased 9.3% y/y in November, driven by a 16.1% increase in residential activity. Non-residential PIP, which includes both non-residential building and infrastructure projects, has started to turn around, posting monthly growth in seasonally adjusted terms since July. PIP construction tends to lag starts by six months to two years, since construction is spread through the lifetime of the project in the former. ConstructConnect, in partnership with Oxford Economics, a world-leading economic forecasting firm, have developed a service covering PIP by type of structure for US states, cities, and counties. The service includes data and forecasts and uses ConstructConnect’s starts data and forecasts to derive the PIP forecasts.

Since the start of 2021, soaring prices of building materials have been an important and worrying development. Construction materials inflation rose to 22% in December, the fastest pace in nearly 50 years. Lumber

prices have eased from their peak in early-2021, but soaring metal prices have more than offset this. In addition, there are signs that labor shortages may be a growing constraint. The JOLTS survey of job openings jumped to a record high in October, and although it eased back in November, it remains at an elevated level. Reflecting this, wage growth has also picked up, creating a further squeeze on construction firms’ margins.

US economy faces a winter chill

GDP increased at an above-consensus pace of 6.9% annualized in Q4 2021, taking full-year growth in 2021 to 5.7%. But looking ahead, the deteriorating health situation will lead to a lull in economic activity in Q1. We expect a rebound in the spring, led by a return of in-person services, with GDP expected to rise 4% this year.

Employment has recouped around 85% of Covid job losses, and wages are now rising rapidly. Although the Omicron wave is expected to weigh on labor demand and constrain supply in the early part of the

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year, record levels of job openings point to solid labor market fundamentals. After a slow start to the year, we foresee the economy adding around 3.5 million – 4.0 million jobs this year. This, combined with high levels of household savings and strong spending on in-person services, should see consumer spending growth of 4% this year.

The passage of the \$1.2 billion bipartisan Infrastructure Investment and Jobs Act in November – which includes about \$550 billion of new federal spending on infrastructure projects such as roads, bridges, public transport, and expanded broadband – should boost construction and investment activity into the medium-term. However, the failure to pass the \$1.8 trillion Build Back Better bill in the Senate poses a downside risk to the economy, although key portions of the bill may be resurrected.

Headline inflation jumped to 7% in December, the highest since 1982, while personal consumption expenditure (PCE) inflation, the Fed's preferred measure, rose to 5.8%. Elevated inflation will remain a headwind in 2022, but easing supply constraints by the second half of the year should support growth and reduce inflationary pressures. We believe that inflation will peak in Q1 2022, but we do not expect core PCE inflation to fall below 3% before the fourth quarter. Against this backdrop, Fed Chairman Powell has signalled that rate lift-off is poised to commence in March and that it will reduce the pace of asset purchases, bringing them to an end in early-March. We expect the Fed to raise rates by 25 basis points (bps) in March, followed by an additional 75bps of rate increases throughout 2022.

Starts buoyed in 2022 by the infrastructure bill and easing of restrictions

We expect the recovery in construction starts to strengthen in 2022, with forecast growth of 12.9%. Following divergent patterns across the subsectors last year, growth is expected to be broad-based with all sectors bar transportation terminals posting an expansion. Growth is set to be buoyed by activity spurred by the Infrastructure Investment and Jobs Act and a movement towards the “new normal” following COVID-19, as individuals return to more social activities.

Residential construction starts are forecast to grow by 11.2% in 2022, slowing from 14.5% last year. We expect multi-family unit housing starts to lead growth this year at 14.3%, with single-family unit housing starts forecast to grow by 10.1%. This represents a rotation in the subsectors from 2021, with multi-family units supported by

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

younger millennials and Gen Z returning to cities, and thus generating demand for multi-family properties after spending much of the pandemic outside of urban centres. Indeed, there are several large multi-family unit projects in the pipeline in cities including New York, Los Angeles, and San Francisco. Single-family starts remain strong, with the pandemic having accelerated demand for housing in more suburban areas with greater space.

Civil engineering starts are forecast to grow by 16.5% in 2022. Growth is broad based across the subsectors with only the water & sewage treatment and dam, canal & marine subsectors failing to reach double digit growth. The civil engineering sector will be supported by the \$1.2 trillion infrastructure bill over the next 5 years, with approximately \$550 billion of this to be spent on tangible projects. As a result, we expect broad based growth to continue over the forecast horizon, with growth of 12.2% and 9.3% forecast in 2023 and 2024 respectively.

The miscellaneous civil engineering subsector, which includes oil & gas, tunnels, and railway projects, is forecast to be the fastest growing subsector within civil engineering from 2022 until 2024. Features of the infrastructure bill such as expansions for passenger and freight rail, funding for tunnelling projects and embracement of renewable energy with accompanying transmission lines will support this subsector. Power infrastructure starts will also be increased by the adoption of electric vehicles which requires upgrades to the power grid and implementation of electric vehicle charging infrastructure.

Non-residential building starts are forecast to expand by 12.9% this year, posting the first year of growth within this segment since 2019. This segment was hard

hit by the pandemic with hybrid working practices, social distancing measures and restrictions on travel limiting demand across the majority of subsectors. With the expected improvement in health conditions and the removal of restrictions in 2022, pent up demand is being released, which should see non-residential starts growth picking up over the forecast period.

The hotel and motel subsector will particularly benefit from the unleashing of pent-up demand. We forecast this to be the fastest growing subsector across 2022, 2023 and 2024 with growth expected of 70.2%, 29.6% and 16.2% in each year respectively. Despite the robust growth, the hotel and motel sector is expected to remain over 22% below its pre pandemic level in 2026 as the pandemic created significant excess supply. Starts in the private office sector are also set to benefit from the movement to the “new normal”, with growth in this sector outpacing total starts over the forecast horizon. However, with the pandemic exacerbating pre-existing shifts towards remote working, private office starts are expected to remain over 36% below their 2019 peak in 2026.

Growth in the industrial sector is expected to slow to 3.4% this year, following an expansion of 41.7% in 2021. Much of this slowdown is a normalisation from the bumper growth seen in the second half of last year spurred on by large projects such as the \$8 billion groundbreaking for a new Intel chip complex in Arizona, Shintech's \$1.3 billion expansion of their plastic and PVC plants in Louisiana, and Geismar's \$1.3 billion methanol plant in Louisiana. That being said, there are some large potential starts in the pipeline for the industrial sector in 2022, including several LNG and fertilizer plants.

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Transportation terminals are the only sector forecast to contract in 2022, with starts falling by 21%. Much of this contraction is caused by the pull-back after the bumper 294.2% growth of 2021, with double digit growth expected to return from 2023 to 2025. Transportation will be a key component of infrastructure spending.

Acceleration in Canadian construction in 2022

Total Canadian construction starts increased 6.5% in 2021, driven by a 19.7% increase in residential and a 22.5% rise in non-residential building, but countered by a 17% contraction in civil engineering. The latest quarter of data showed a 20% y/y rise in construction in Q4 2021 driven by a 130% rise in the non-residential sector, but partially offset by a 14.3% decline in residential starts and a 10.9% decrease in civil engineering starts.

A 3300% y/y rise in the industrial sector in Q4 2021 underpinned the strong increase in non-residential groundbreaking. This was driven by a \$7.5 billion potash mine in Saskatchewan. Outside of this sector, only amusement & recreation posted a y/y increase in Q4. That sector grew nearly 250%, but this was a rebound from a particularly weak level in Q4 2020 rather than the result of a large project. On the downside, a number of sectors posted y/y declines exceeding 60%, including transportation terminals, hospitals, miscellaneous retail, and most notably, hotels, which fell more than 90% y/y.

The decline in engineering starts was driven by a 64.4% y/y fall in the miscellaneous civil sector in Q4, taking the full-year decline in that sector to 55.2% in 2021. The performance was much stronger outside of that sub-sector, with y/y growth in all other sub-sectors and y/y growth exceeding 70% in bridges; water, sewage, & treatment; roads; and power infrastructure. In all cases, this resulted from a rebound from a low level in the same period a year earlier,

rather than a single large project.

In the residential sector, a 30.8% y/y decline in the multi-family segment more than offset 1.7% y/y growth in single-family homebuilding. Although single-family homebuilding continued to grow, it was the slowest pace since Q3 2020, suggesting the sector may be cooling from the heady pace of growth posted over the last year.

Surging Omicron cases have prompted a tightening of public health restrictions that will weigh on the Canadian economy in early-2022. We expect the current wave to fade relatively quickly, with economic activity forecast to rebound rapidly once restrictions ease, supply chains increasingly loosen, and business and consumer confidence improves. We forecast GDP will rise 4.1% in 2022, down from 4.6% growth last year. The labor market ended 2021 on an upswing with the unemployment rate now at 5.9%, the lowest level since the pandemic began. Although the labor market recovery may stall in early-2022, we expect most of these jobs will be quickly recouped once restrictions ease. Inflation hit a 30-year high of 4.8% in December, and we expect it to remain elevated in the short-term, peaking at 5% in April before easing to the mid-2% range early next year as supply bottlenecks clear and energy prices fall. We expect growing inflation concerns and the tight labor market will prompt the Bank of Canada to start raising rates in April and hike twice more by the end of the year.

The recovery in Canadian construction starts is expected to accelerate in 2022, to 16.3%. Growth this year is broad based with only the industrial and hospital subsectors posting an annual decline after strong growth in 2021. Robust growth is expected to continue into 2023, forecast at 13.3%.

Residential construction starts are forecast to slow to 5.3% in 2022 after expanding by 19.7% in 2021. The single-family segment is expected to just outpace the multi-family segment, with growth at 5.6% and 5% respectively. As the recovery from the

COVID-19 pandemic continues, we expect demand for multi-family units to increase as younger millennials and Gen Zs return to urban centres. Looking ahead, we expect growth in multi-family starts to outpace single-family units from 2023 to 2026.

The non-residential building sector is expected to see growth of 10.7% this year, following growth of 22.5% in 2021. This slowdown is driven by the industrial sector where growth is expected to contract by 8.5% in 2022, following a 332.2% expansion last year due to groundbreaking large projects towards the end of the year, especially the C\$7.5 billion potash mine in Saskatchewan. Despite the expected contraction in the industrial sector, there is underlying strength with several large LNG and refinery plants expected to begin construction this year. The commercial sector is expected to grow 31.3% in 2022, driven by growth in the hotel and motel (246.2%), shopping and retail (202.1%) and miscellaneous retail (163.7%) subsectors. The commercial sector is set to reap the benefits from the unwinding of restrictions and the economic reopening. Meanwhile, the institutional sector is expected to grow by 15% this year, with impetus coming from the transportation terminal and miscellaneous medical subsectors, each seeing a triple-digit pace of growth.

Civil engineering starts are also expected to grow in 2022, expanding by 35.8% following a contraction of 17% in 2021. All subsectors are expected to record growth this year, with the miscellaneous civil engineering subsector leading growth with over 125%. This subsector includes oil and gas projects and will be supported by groundbreaking in several energy-related areas this year. Overall, the civil engineering sector is expected to see strong growth into 2023, expanding by 19%. It will outpace overall construction starts until 2025.

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

	Actuals		Forecasts				
	2020	2021	2022	2023	2024	2025	2026
Single-family	219.290	256.280	282.103	304.270	325.140	345.328	366.089
Multi-family	82.135	88.747	101.459	108.836	116.250	124.005	132.197
TOTAL RESIDENTIAL	301.425	345.027	383.562	413.106	441.390	469.333	498.286
<i>(Yr/yr % change)</i>	<i>1.2%</i>	<i>14.5%</i>	<i>11.2%</i>	<i>7.7%</i>	<i>6.8%</i>	<i>6.3%</i>	<i>6.2%</i>
Hotels/Motels	10.194	6.533	11.121	14.414	16.750	18.321	19.258
Shopping/Retail	12.279	12.572	15.092	17.311	19.649	21.239	22.324
Parking Garages	1.740	1.653	2.073	2.442	2.649	2.852	2.984
Amusement	6.300	6.428	6.768	7.273	8.161	8.818	9.188
Private Offices	25.893	18.115	20.639	23.431	26.140	28.574	30.123
Governmental Offices	10.663	12.131	12.793	13.298	13.814	14.250	14.614
Laboratories (Schools & Industrial)	2.351	2.189	2.622	2.858	3.012	3.141	3.264
Warehouses	26.219	25.605	28.141	30.317	31.916	33.218	34.267
Sports Stadium/Convention Center	4.516	5.445	6.578	7.489	8.251	8.893	9.322
Transportation Terminals	2.361	9.308	7.351	8.642	9.852	10.857	11.638
TOTAL COMMERCIAL	102.516	99.978	113.178	127.474	140.195	150.164	156.983
<i>(Yr/yr % change)</i>	<i>-29.2%</i>	<i>-2.5%</i>	<i>13.2%</i>	<i>12.6%</i>	<i>10.0%</i>	<i>7.1%</i>	<i>4.5%</i>
TOTAL INDUSTRIAL (manufacturing)	21.741	30.799	31.836	34.633	37.507	40.270	42.422
<i>(Yr/yr % change)</i>	<i>-61.0%</i>	<i>41.7%</i>	<i>3.4%</i>	<i>8.8%</i>	<i>8.3%</i>	<i>7.4%</i>	<i>5.3%</i>
Religious	1.623	0.957	1.383	1.501	1.581	1.649	1.690
Hospitals/Clinics	13.352	16.593	20.142	22.295	23.851	25.397	26.481
Nursing Homes/Assisted Living	7.485	5.670	7.020	7.997	9.051	9.812	10.415
Libraries/Museums	3.807	2.571	3.204	3.839	4.230	4.377	4.468
Courthouse	2.376	2.485	2.730	2.891	3.051	3.189	3.303
Police/Fire	3.313	3.008	3.195	3.406	3.589	3.757	3.905
Prisons	2.389	2.260	2.519	2.742	2.930	3.079	3.185
Military	9.207	10.251	11.160	11.988	12.678	13.152	13.514
Educational Facilities	67.540	58.795	66.840	71.971	76.589	81.035	84.145
MED misc	8.212	6.628	8.240	9.463	10.180	10.711	11.234
TOTAL INSTITUTIONAL	119.305	109.218	126.433	138.094	147.730	156.159	162.340
<i>(Yr/yr % change)</i>	<i>-11.3%</i>	<i>-8.5%</i>	<i>15.8%</i>	<i>9.2%</i>	<i>7.0%</i>	<i>5.7%</i>	<i>4.0%</i>
Miscellaneous Non-Res Building	5.794	6.115	6.393	6.629	6.842	7.015	7.161
TOTAL NON-RES BLDG	249.356	246.109	277.840	306.830	332.274	353.608	368.907
<i>(Yr/yr % change)</i>	<i>-27.2%</i>	<i>-1.3%</i>	<i>12.9%</i>	<i>10.4%</i>	<i>8.3%</i>	<i>6.4%</i>	<i>4.3%</i>
Airport	6.028	5.175	6.369	7.294	8.066	8.748	9.216
Roads	63.653	67.464	75.592	83.128	90.376	95.850	99.474
Bridges	22.761	18.037	22.210	24.581	27.230	29.907	31.378
Dams/Canal/Marine	8.283	8.561	9.305	9.990	10.719	11.316	11.740
Water & Sewage Treatment	31.247	34.105	37.456	41.194	43.692	46.235	47.447
Misc Civil (Power, etc.)	22.727	22.758	30.988	37.890	42.970	46.645	49.418
TOTAL ENGINEERING	154.699	156.099	181.922	204.076	223.053	238.701	248.674
<i>(Yr/yr % change)</i>	<i>-18.3%</i>	<i>0.9%</i>	<i>16.5%</i>	<i>12.2%</i>	<i>9.3%</i>	<i>7.0%</i>	<i>4.2%</i>
TOTAL NON-RESIDENTIAL	404.055	402.208	459.761	510.906	555.327	592.309	617.581
<i>(Yr/yr % change)</i>	<i>-24.0%</i>	<i>-0.5%</i>	<i>14.3%</i>	<i>11.1%</i>	<i>8.7%</i>	<i>6.7%</i>	<i>4.3%</i>
GRAND TOTAL	705.480	747.235	843.323	924.013	996.716	1,061.642	1,115.867
<i>(Yr/yr % change)</i>	<i>-15.0%</i>	<i>5.9%</i>	<i>12.9%</i>	<i>9.6%</i>	<i>7.9%</i>	<i>6.5%</i>	<i>5.1%</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				
	2020	2021	2022	2023	2024	2025	2026
Summary							
CIVIL	154.699	156.099	181.922	204.076	223.053	238.701	248.674
NON-RESIDENTIAL BUILDING	249.356	246.109	277.840	306.830	332.274	353.608	368.907
RESIDENTIAL	301.425	345.027	383.562	413.106	441.390	469.333	498.286
GRAND TOTAL	705.480	747.235	843.323	924.013	996.716	1,061.642	1,115.867
Verticals							
Airport	6.028	5.175	6.369	7.294	8.066	8.748	9.216
All Other Civil	18.166	14.008	19.231	22.891	25.831	27.818	29.734
Bridges	22.761	18.037	22.210	24.581	27.230	29.907	31.378
Dams / Canals / Marine Work	8.283	8.561	9.305	9.990	10.719	11.316	11.740
Power Infrastructure	4.560	8.749	11.758	14.999	17.139	18.827	19.684
Roads	63.653	67.464	75.592	83.128	90.376	95.850	99.474
Water and Sewage Treatment	31.247	34.105	37.456	41.194	43.692	46.235	47.447
CIVIL	154.699	156.099	181.922	204.076	223.053	238.701	248.674
<i>(Yr/Yr % change)</i>	<i>-18.3%</i>	<i>0.9%</i>	<i>16.5%</i>	<i>12.2%</i>	<i>9.3%</i>	<i>7.0%</i>	<i>4.2%</i>
Offices (private)	25.893	18.115	20.639	23.431	26.140	28.574	30.123
Parking Garages	1.740	1.653	2.073	2.442	2.649	2.852	2.984
Transportation Terminals	2.361	9.308	7.351	8.642	9.852	10.857	11.638
Commercial	29.994	29.075	30.063	34.515	38.641	42.284	44.745
<i>(Yr/Yr % change)</i>	<i>-40.6%</i>	<i>-3.1%</i>	<i>3.4%</i>	<i>14.8%</i>	<i>12.0%</i>	<i>9.4%</i>	<i>5.8%</i>
Amusement	6.300	6.428	6.768	7.273	8.161	8.818	9.188
Libraries / Museums	3.807	2.571	3.204	3.839	4.230	4.377	4.468
Religious	1.623	0.957	1.383	1.501	1.581	1.649	1.690
Sports Arenas / Convention Centers	4.516	5.445	6.578	7.489	8.251	8.893	9.322
Community	16.246	15.401	17.934	20.102	22.223	23.737	24.669
<i>(Yr/Yr % change)</i>	<i>-30.5%</i>	<i>-5.2%</i>	<i>16.4%</i>	<i>12.1%</i>	<i>10.5%</i>	<i>6.8%</i>	<i>3.9%</i>
College / University	17.920	14.467	17.406	18.661	19.746	20.684	21.267
Elementary / Pre School	19.834	15.429	18.404	20.142	21.634	23.052	24.090
Jr / Sr High School	27.830	26.926	28.900	30.875	32.807	34.811	36.247
Special / Vocational	1.955	1.973	2.129	2.293	2.403	2.488	2.541
Educational	67.540	58.795	66.840	71.971	76.589	81.035	84.145
<i>(Yr/Yr % change)</i>	<i>-11.0%</i>	<i>-12.9%</i>	<i>13.7%</i>	<i>7.7%</i>	<i>6.4%</i>	<i>5.8%</i>	<i>3.8%</i>
Courthouses	2.376	2.485	2.730	2.891	3.051	3.189	3.303
Fire and Police Stations	3.313	3.008	3.195	3.406	3.589	3.757	3.905
Government Offices	10.663	12.131	12.793	13.298	13.814	14.250	14.614
Prisons	2.389	2.260	2.519	2.742	2.930	3.079	3.185
Government	18.742	19.883	21.237	22.336	23.384	24.275	25.007
<i>(Yr/Yr % change)</i>	<i>0.3%</i>	<i>6.1%</i>	<i>6.8%</i>	<i>5.2%</i>	<i>4.7%</i>	<i>3.8%</i>	<i>3.0%</i>
Industrial Labs / Labs / School Labs	2.351	2.189	2.622	2.858	3.012	3.141	3.264
Manufacturing	21.741	30.799	31.836	34.633	37.507	40.270	42.422
Warehouses	26.219	25.605	28.141	30.317	31.916	33.218	34.267
Industrial	50.312	58.593	62.598	67.808	72.435	76.628	79.954
<i>(Yr/Yr % change)</i>	<i>-37.7%</i>	<i>16.5%</i>	<i>6.8%</i>	<i>8.3%</i>	<i>6.8%</i>	<i>5.8%</i>	<i>4.3%</i>
Hospitals / Clinics	13.352	16.593	20.142	22.295	23.851	25.397	26.481
Medical Misc.	8.212	6.628	8.240	9.463	10.180	10.711	11.234
Nursing Homes	7.485	5.670	7.020	7.997	9.051	9.812	10.415
Medical	29.048	28.891	35.402	39.755	43.082	45.920	48.130
<i>(Yr/Yr % change)</i>	<i>-28.7%</i>	<i>-0.5%</i>	<i>22.5%</i>	<i>12.3%</i>	<i>8.4%</i>	<i>6.6%</i>	<i>4.8%</i>
Military	9.207	10.251	11.160	11.988	12.678	13.152	13.514
<i>(Yr/Yr % change)</i>	<i>82.4%</i>	<i>11.3%</i>	<i>8.9%</i>	<i>7.4%</i>	<i>5.7%</i>	<i>3.7%</i>	<i>2.8%</i>
Hotels	10.194	6.533	11.121	14.414	16.750	18.321	19.258
Retail Misc.	5.794	6.115	6.393	6.629	6.842	7.015	7.161
Shopping	12.279	12.572	15.092	17.311	19.649	21.239	22.324
Retail	28.267	25.219	32.606	38.353	43.242	46.576	48.743
<i>(Yr/Yr % change)</i>	<i>-40.8%</i>	<i>-10.8%</i>	<i>29.3%</i>	<i>17.6%</i>	<i>12.7%</i>	<i>7.7%</i>	<i>4.7%</i>
NON-RESIDENTIAL BUILDING	249.356	246.109	277.840	306.830	332.274	353.608	368.907
<i>(Yr/Yr % change)</i>	<i>-27.2%</i>	<i>-1.3%</i>	<i>12.9%</i>	<i>10.4%</i>	<i>8.3%</i>	<i>6.4%</i>	<i>4.3%</i>
Multi-Family	82.135	88.747	101.459	108.836	116.250	124.005	132.197
Single-Family	219.290	256.280	282.103	304.270	325.140	345.328	366.089
RESIDENTIAL	301.425	345.027	383.562	413.106	441.390	469.333	498.286
<i>(Yr/Yr % change)</i>	<i>1.2%</i>	<i>14.5%</i>	<i>11.2%</i>	<i>7.7%</i>	<i>6.8%</i>	<i>6.3%</i>	<i>6.2%</i>
GRAND TOTAL	705.480	747.235	843.323	924.013	996.716	1,061.642	1,115.867
<i>(Yr/Yr % change)</i>	<i>-15.0%</i>	<i>5.9%</i>	<i>12.9%</i>	<i>9.6%</i>	<i>7.9%</i>	<i>6.5%</i>	<i>5.1%</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)	2022	2023	2024	2025	2026
	2021					
Alaska - AK	\$1,808	7.4%	16.2%	7.8%	6.8%	5.5%
Alabama - AL	\$12,408	8.1%	12.4%	9.7%	7.0%	5.0%
Arkansas - AR	\$6,411	25.5%	12.3%	8.7%	6.6%	4.8%
Arizona - AZ	\$30,257	-20.8%	16.3%	11.9%	7.4%	6.1%
California - CA*	\$62,108	12.4%	11.5%	9.3%	7.7%	6.9%
Colorado - CO	\$18,597	23.8%	10.2%	8.8%	7.6%	5.6%
Connecticut - CT	\$4,147	37.1%	19.7%	7.9%	5.7%	3.7%
District Of Columbia - DC	\$2,297	33.2%	14.9%	3.3%	5.3%	4.1%
Delaware - DE	\$2,654	1.5%	4.9%	6.3%	5.7%	4.0%
Florida - FL*	\$59,917	23.5%	5.7%	7.1%	6.7%	5.2%
Georgia - GA	\$24,833	23.4%	9.6%	8.5%	6.8%	5.2%
Hawaii - HI	\$3,692	-9.9%	16.2%	1.6%	7.1%	5.5%
Iowa - IA	\$7,516	-3.8%	9.8%	9.2%	6.6%	4.5%
Idaho - ID	\$5,324	38.5%	8.2%	5.0%	5.9%	2.9%
Illinois - IL	\$17,090	30.8%	7.0%	8.3%	6.5%	4.1%
Indiana - IN	\$15,076	9.8%	7.6%	8.6%	6.6%	3.9%
Kansas - KS	\$5,742	12.8%	7.7%	7.9%	6.7%	4.7%
Kentucky - KY	\$8,260	1.3%	15.1%	8.9%	6.4%	4.4%
Louisiana - LA	\$12,938	11.0%	14.0%	7.6%	6.1%	4.2%
Massachusetts - MA	\$15,635	4.3%	7.5%	7.0%	7.3%	5.1%
Maryland - MD	\$10,162	-10.0%	6.3%	8.2%	6.8%	5.5%
Maine - ME	\$4,362	-25.3%	9.9%	5.4%	8.2%	3.8%
Michigan - MI	\$13,328	24.2%	10.4%	7.6%	6.3%	4.3%
Minnesota - MN	\$16,855	2.3%	9.3%	7.9%	6.7%	4.8%
Missouri - MO	\$13,668	-9.9%	5.3%	8.4%	6.2%	4.1%
Mississippi - MS	\$4,883	-4.4%	7.6%	9.3%	6.7%	4.5%
Montana - MT	\$2,261	15.0%	7.3%	7.3%	6.1%	4.5%
North Carolina - NC	\$33,212	-3.0%	8.2%	6.8%	4.1%	5.3%
North Dakota - ND	\$2,631	24.0%	19.8%	8.8%	7.4%	5.2%
Nebraska - NE	\$5,487	-5.2%	12.0%	8.5%	6.7%	4.6%
New Hampshire - NH	\$2,612	10.0%	9.5%	8.0%	6.3%	4.7%
New Jersey - NJ	\$10,944	44.8%	7.4%	-5.3%	6.7%	4.2%
New Mexico - NM	\$3,170	10.6%	9.9%	8.0%	6.1%	4.1%
Nevada - NV	\$8,986	-7.9%	5.6%	6.0%	6.7%	5.7%
New York - NY*	\$31,796	23.1%	13.6%	6.4%	0.3%	4.4%
Ohio - OH	\$21,353	2.0%	9.9%	8.1%	6.5%	4.3%
Oklahoma - OK	\$9,126	11.9%	9.5%	9.0%	6.8%	4.8%
Oregon - OR	\$9,829	7.9%	10.0%	8.0%	7.5%	5.7%
Pennsylvania - PA	\$20,843	13.7%	10.0%	7.1%	6.6%	4.3%
Rhode Island - RI	\$1,182	10.7%	9.3%	6.6%	5.9%	4.0%
South Carolina - SC	\$15,605	2.4%	7.3%	8.8%	6.5%	5.0%
South Dakota - SD	\$3,008	3.2%	6.4%	7.7%	6.7%	4.9%
Tennessee - TN	\$21,828	-3.2%	8.5%	8.6%	6.3%	4.8%
Texas - TX*	\$99,914	23.0%	8.1%	8.1%	7.3%	5.4%
Utah - UT	\$12,667	31.4%	8.1%	8.2%	7.8%	5.8%
Virginia - VA	\$18,219	19.8%	10.9%	8.3%	6.5%	4.6%
Vermont - VT	\$798	9.9%	1.8%	8.3%	6.4%	4.8%
Washington - WA	\$16,474	26.4%	11.7%	8.8%	8.4%	6.3%
Wisconsin - WI	\$11,974	8.1%	10.4%	8.9%	6.0%	3.8%
West Virginia - WV	\$1,885	47.3%	9.6%	9.2%	6.5%	3.7%
Wyoming - WY	\$1,463	31.0%	21.3%	9.4%	7.2%	4.9%
United States	\$747,235	12.9%	9.6%	7.9%	6.5%	5.1%

*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				
		2020	2021	2022	2023	2024	2025	2026
New York	Residential	8.434	10.321	11.531	12.756	14.442	14.514	15.200
	Non-res Building	14.357	13.406	14.458	16.914	17.615	17.464	18.216
	Engineering/Civil	5.280	8.068	13.150	14.807	15.288	15.514	16.160
	Total	28.071	31.796	39.139	44.477	47.346	47.492	49.576
	<i>(Yr vs previous yr % Change)</i>	-29.2%	13.3%	23.1%	13.6%	6.4%	0.3%	4.4%
Florida	Residential	29.176	35.902	43.601	45.314	48.007	51.246	54.427
	Non-res Building	15.329	15.389	18.474	19.640	21.281	22.675	23.582
	Engineering/Civil	8.806	8.627	11.908	13.242	14.484	15.502	16.096
	Total	53.311	59.917	73.984	78.196	83.772	89.423	94.105
	<i>(Yr vs previous yr % Change)</i>	-14.3%	12.4%	23.5%	5.7%	7.1%	6.7%	5.2%
Texas	Residential	45.589	53.007	57.424	60.804	63.814	68.348	73.061
	Non-res Building	32.705	26.935	41.890	45.938	50.314	53.984	56.119
	Engineering/Civil	19.360	19.971	23.572	26.062	29.437	31.661	33.082
	Total	97.653	99.914	122.887	132.804	143.565	153.993	162.261
	<i>(Yr vs previous yr % Change)</i>	-25.7%	2.3%	23.0%	8.1%	8.1%	7.3%	5.4%
California	Residential	23.597	22.544	27.181	29.909	32.554	35.123	38.255
	Non-res Building	21.696	25.192	25.859	28.661	31.048	33.289	35.459
	Engineering/Civil	18.305	14.372	16.771	19.250	21.469	23.178	24.242
	Total	63.599	62.108	69.811	77.820	85.071	91.590	97.956
	<i>(Yr vs previous yr % Change)</i>	-3.4%	-2.3%	12.4%	11.5%	9.3%	7.7%	6.9%

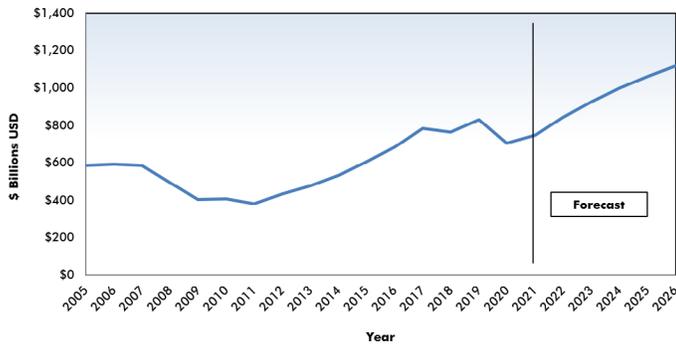
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

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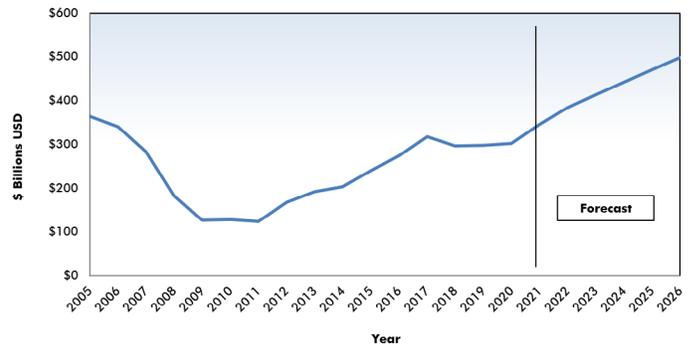
Link to article here: <https://bit.ly/34iE52q>

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



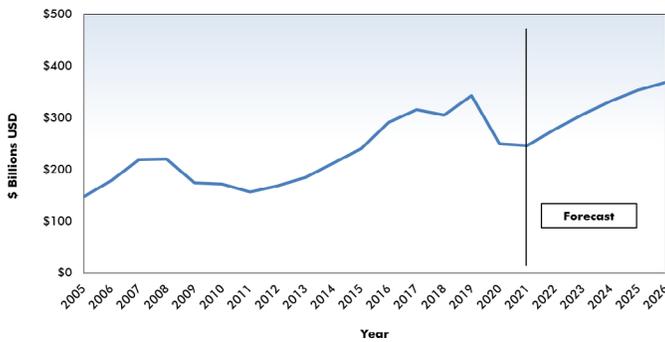
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



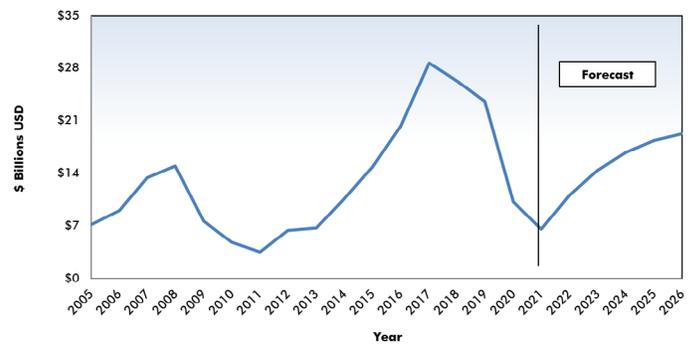
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



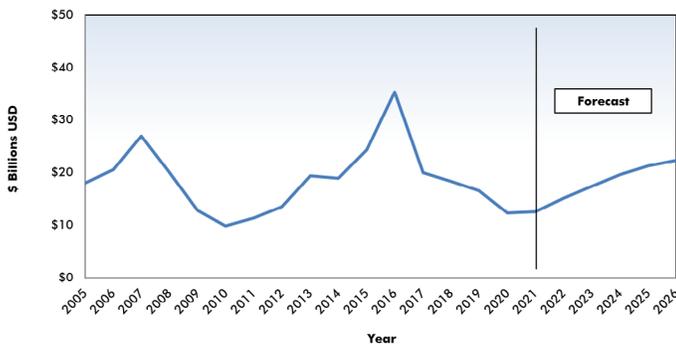
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



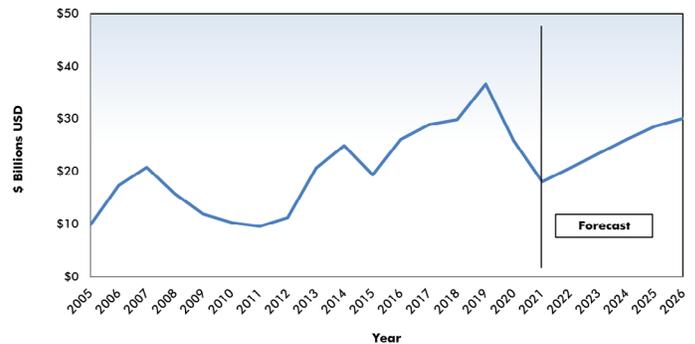
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



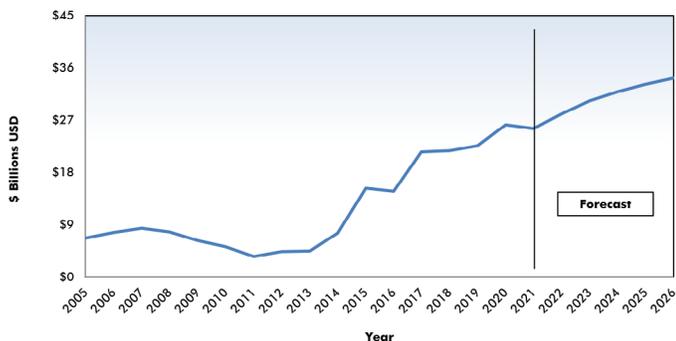
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



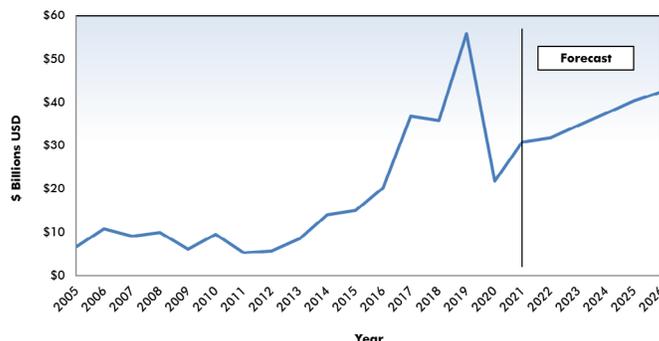
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



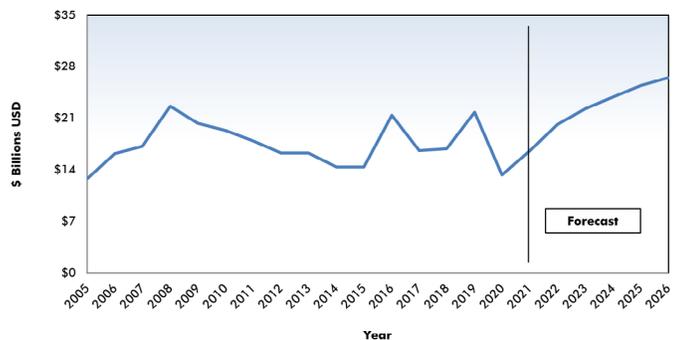
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



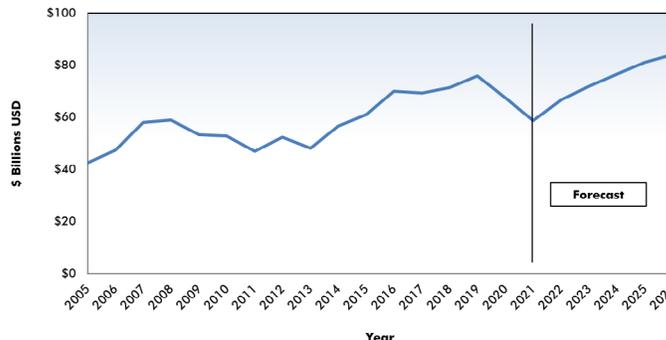
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



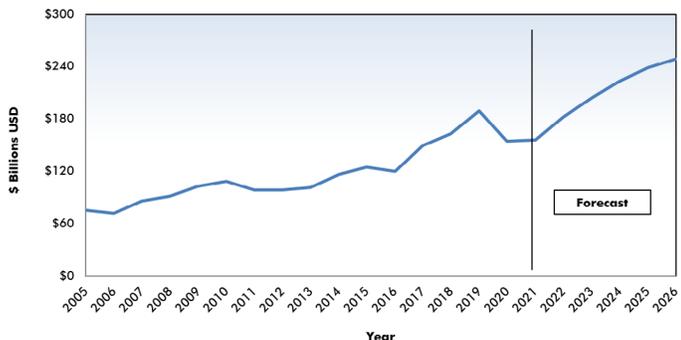
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



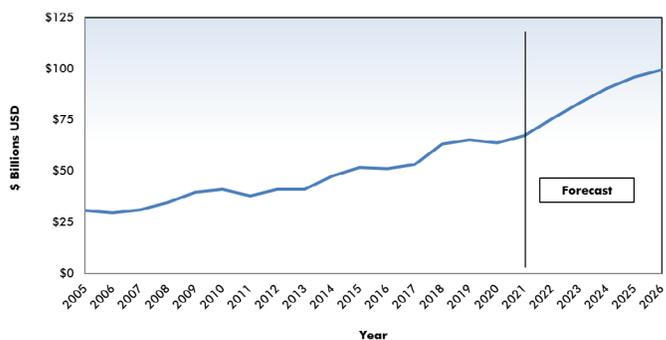
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



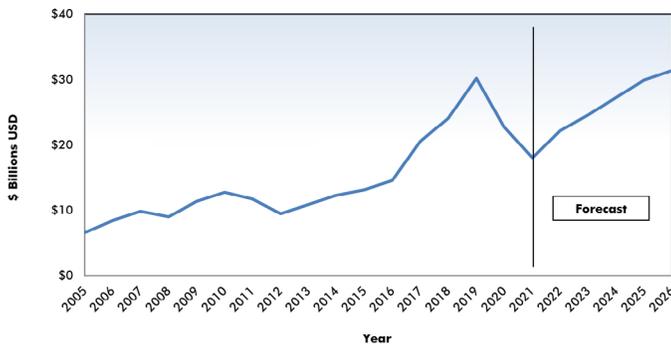
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



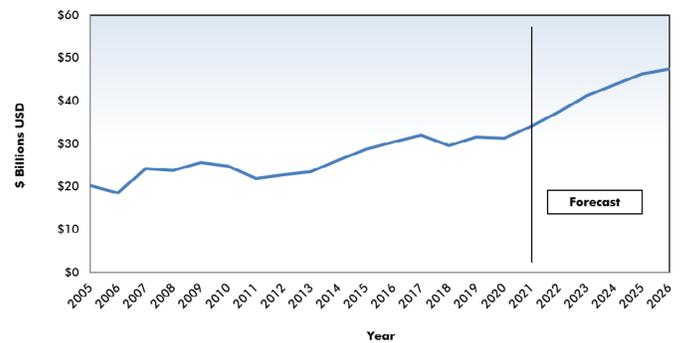
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



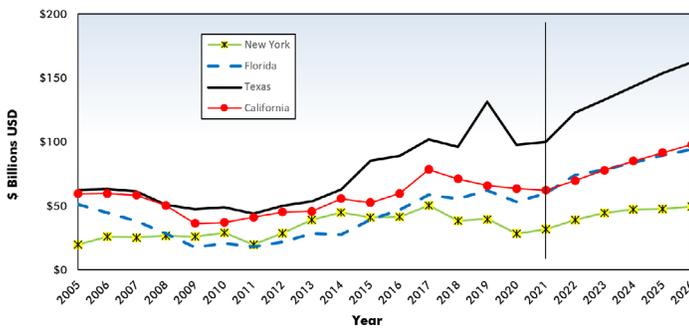
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



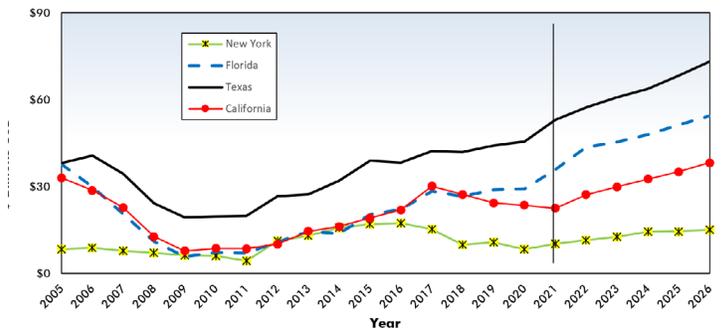
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



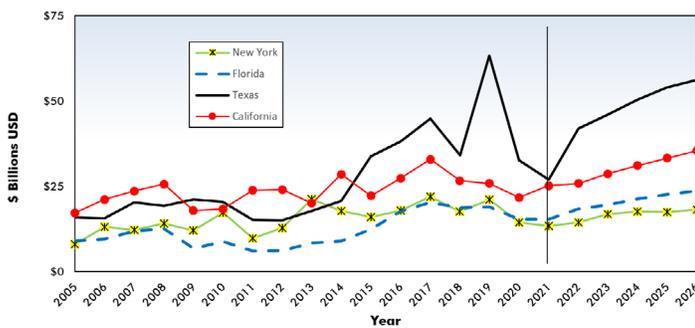
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



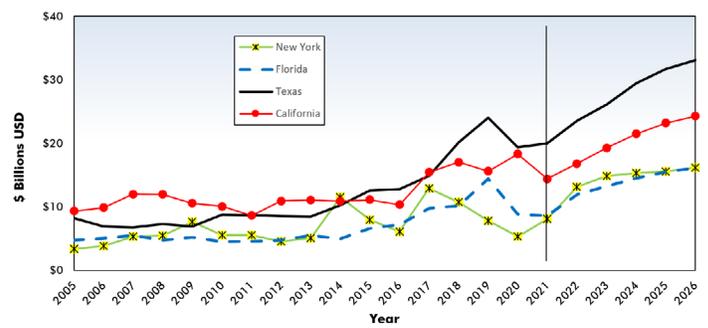
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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				
	2020	2021	2022	2023	2024	2025	2026
Single-family	13.301	17.868	18.864	20.083	20.675	21.195	21.649
Multi-family	13.631	14.369	15.091	16.403	17.558	18.410	19.090
TOTAL RESIDENTIAL	26.932	32.237	33.955	36.486	38.233	39.605	40.740
<i>(Yr/yr % change)</i>	<i>-12.9%</i>	<i>19.7%</i>	<i>5.3%</i>	<i>7.5%</i>	<i>4.8%</i>	<i>3.6%</i>	<i>2.9%</i>
Hotels/Motels	0.385	0.138	0.478	0.755	0.872	0.940	1.001
Private Offices	2.117	0.984	1.427	1.830	2.162	2.372	2.535
Governmental Offices	1.504	1.062	1.311	1.488	1.581	1.647	1.715
Shopping/Retail	0.359	0.237	0.717	1.036	1.220	1.351	1.449
Retail Miscellaneous	0.099	0.061	0.160	0.213	0.259	0.289	0.308
Parking Garages	0.144	0.103	0.151	0.185	0.212	0.238	0.262
Amusement	1.103	2.317	2.450	2.650	2.850	3.050	3.250
Warehouses	2.007	1.545	1.768	1.930	2.070	2.200	2.300
TOTAL COMMERCIAL	7.718	6.446	8.461	10.086	11.226	12.087	12.818
<i>(Yr/yr % change)</i>	<i>-47.4%</i>	<i>-16.5%</i>	<i>31.3%</i>	<i>19.2%</i>	<i>11.3%</i>	<i>7.7%</i>	<i>6.0%</i>
TOTAL INDUSTRIAL (manufacturing)	2.403	10.388	9.506	10.248	10.867	11.457	11.995
<i>(Yr/yr % change)</i>	<i>-30.6%</i>	<i>332.2%</i>	<i>-8.5%</i>	<i>7.8%</i>	<i>6.0%</i>	<i>5.4%</i>	<i>4.7%</i>
Religious	0.040	0.094	0.099	0.104	0.109	0.113	0.116
Hospitals/Clinics	4.054	7.329	6.899	7.500	8.000	8.500	9.000
MED misc	0.153	0.097	0.276	0.335	0.392	0.449	0.492
Transportation Terminals*	5.566	0.296	2.564	3.710	4.061	4.433	4.801
Police/Fire	1.047	1.337	1.447	1.570	1.684	1.796	1.859
Educational Facilities	5.356	6.278	6.453	6.747	6.979	7.208	7.427
TOTAL INSTITUTIONAL	16.216	15.430	17.738	19.967	21.224	22.498	23.694
<i>(Yr/yr % change)</i>	<i>37.0%</i>	<i>-4.8%</i>	<i>15.0%</i>	<i>12.6%</i>	<i>6.3%</i>	<i>6.0%</i>	<i>5.3%</i>
TOTAL NON-RES BUILDING	26.338	32.265	35.705	40.301	43.317	46.041	48.507
<i>(Yr/yr % change)</i>	<i>-12.1%</i>	<i>22.5%</i>	<i>10.7%</i>	<i>12.9%</i>	<i>7.5%</i>	<i>6.3%</i>	<i>5.4%</i>
Bridges	3.675	2.210	3.100	3.658	3.881	4.007	4.072
Dams/Canal/Marine	0.691	0.516	0.706	0.766	0.823	0.866	0.908
Water & Sewage Treatment	3.062	4.471	4.563	4.955	5.324	5.656	5.924
Roads	10.296	10.330	11.069	11.761	12.478	13.135	13.794
Power Infrastructure	2.893	4.281	5.153	6.136	6.834	7.582	8.202
All Other Civil (Oil & Gas etc.)	12.293	5.513	12.523	16.874	18.992	20.659	21.696
TOTAL ENGINEERING	32.909	27.321	37.114	44.150	48.331	51.904	54.595
<i>(Yr/yr % change)</i>	<i>-12.4%</i>	<i>-17.0%</i>	<i>35.8%</i>	<i>19.0%</i>	<i>9.5%</i>	<i>7.4%</i>	<i>5.2%</i>
TOTAL NON-RESIDENTIAL	59.247	59.586	72.819	84.451	91.649	97.946	103.103
<i>(Yr/yr % change)</i>	<i>-12.3%</i>	<i>0.6%</i>	<i>22.2%</i>	<i>16.0%</i>	<i>8.5%</i>	<i>6.9%</i>	<i>5.3%</i>
GRAND TOTAL	86.179	91.823	106.774	120.937	129.881	137.551	143.842
<i>(Yr/yr % change)</i>	<i>-12.5%</i>	<i>6.5%</i>	<i>16.3%</i>	<i>13.3%</i>	<i>7.4%</i>	<i>5.9%</i>	<i>4.6%</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				
	2020	2021	2022	2023	2024	2025	2026
Summary							
CIVIL	32.909	27.321	37.114	44.150	48.331	51.904	54.595
NON-RESIDENTIAL BUILDING	26.338	32.265	35.705	40.301	43.317	46.041	48.507
RESIDENTIAL	26.932	32.237	33.955	36.486	38.233	39.605	40.740
GRAND TOTAL	86.179	91.823	106.774	120.937	129.881	137.551	143.842
Verticals							
All Other Civil	12.293	5.513	12.523	16.874	18.992	20.659	21.696
Bridges	3.675	2.210	3.100	3.658	3.881	4.007	4.072
Dams / Canals / Marine Work	0.691	0.516	0.706	0.766	0.823	0.866	0.908
Power Infrastructure	2.893	4.281	5.153	6.136	6.834	7.582	8.202
Roads	10.296	10.330	11.069	11.761	12.478	13.135	13.794
Water and Sewage Treatment	3.062	4.471	4.563	4.955	5.324	5.656	5.924
CIVIL	32.909	27.321	37.114	44.150	48.331	51.904	54.595
(Yr/yr % change)	-12.4%	-17.0%	35.8%	19.0%	9.5%	7.4%	5.2%
Offices (private)	2.117	0.984	1.427	1.830	2.162	2.372	2.535
Parking Garages	0.144	0.103	0.151	0.185	0.212	0.238	0.262
Transportation Terminals	5.566	0.296	2.564	3.710	4.061	4.433	4.801
Commercial	7.827	1.383	4.142	5.725	6.435	7.044	7.597
(Yr/yr % change)	37.7%	-82.3%	199.5%	38.2%	12.4%	9.5%	7.9%
Amusement	1.103	2.317	2.450	2.650	2.850	3.050	3.250
Religious	0.040	0.094	0.099	0.104	0.109	0.113	0.116
Community	1.143	2.411	2.549	2.754	2.959	3.163	3.366
(Yr/yr % change)	-53.1%	110.9%	5.7%	8.1%	7.4%	6.9%	6.4%
Educational	5.356	6.278	6.453	6.747	6.979	7.208	7.427
(Yr/yr % change)	1.4%	17.2%	2.8%	4.6%	3.4%	3.3%	3.0%
Fire and Police Stations	1.047	1.337	1.447	1.570	1.684	1.796	1.859
Government Offices	1.504	1.062	1.311	1.488	1.581	1.647	1.715
Government	2.551	2.398	2.758	3.058	3.265	3.443	3.573
(Yr/yr % change)	-40.0%	-6.0%	15.0%	10.9%	6.8%	5.5%	3.8%
Manufacturing	2.403	10.388	9.506	10.248	10.867	11.457	11.995
Warehouses	2.007	1.545	1.768	1.930	2.070	2.200	2.300
Industrial	4.411	11.933	11.274	12.178	12.937	13.657	14.295
(Yr/yr % change)	-12.3%	170.5%	-5.5%	8.0%	6.2%	5.6%	4.7%
Hospitals / Clinics	4.054	7.329	6.899	7.500	8.000	8.500	9.000
Medical Misc.	0.153	0.097	0.276	0.335	0.392	0.449	0.492
Medical	4.207	7.426	7.175	7.835	8.392	8.948	9.492
(Yr/yr % change)	6.0%	76.5%	-3.4%	9.2%	7.1%	6.6%	6.1%
Hotels	0.385	0.138	0.478	0.755	0.872	0.940	1.001
Retail Misc.	0.099	0.061	0.160	0.213	0.259	0.289	0.308
Shopping	0.359	0.237	0.717	1.036	1.220	1.351	1.449
Retail	0.843	0.436	1.355	2.004	2.351	2.579	2.757
(Yr/yr % change)	-74.6%	-48.3%	210.7%	47.9%	17.4%	9.7%	6.9%
NON-RESIDENTIAL BUILDING	26.338	32.265	35.705	40.301	43.317	46.041	48.507
(Yr/yr % change)	-12.1%	22.5%	10.7%	12.9%	7.5%	6.3%	5.4%
Multi-Family	13.631	14.369	15.091	16.403	17.558	18.410	19.090
Single-Family	13.301	17.868	18.864	20.083	20.675	21.195	21.649
RESIDENTIAL	26.932	32.237	33.955	36.486	38.233	39.605	40.740
(Yr/yr % change)	-12.9%	19.7%	5.3%	7.5%	4.8%	3.6%	2.9%
TOTAL NON-RESIDENTIAL	59.247	59.586	72.819	84.451	91.649	97.946	103.103
(Yr/yr % change)	-12.3%	0.6%	22.2%	16.0%	8.5%	6.9%	5.3%
GRAND TOTAL	86.179	91.823	106.774	120.937	129.881	137.551	143.842
(Yr/yr % change)	-12.5%	6.5%	16.3%	13.3%	7.4%	5.9%	4.6%

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)				
	2021	2022	2023	2024	2025	2026
Atlantic region	\$3,702	51.8%	16.8%	8.5%	4.0%	3.5%
Quebec	\$18,969	11.5%	4.1%	8.4%	7.4%	4.7%
Ontario	\$28,389	17.6%	8.1%	6.3%	4.7%	4.5%
Manitoba	\$2,402	46.4%	5.0%	4.3%	7.3%	4.6%
Saskatchewan	\$10,055	-72.1%	14.6%	6.2%	5.0%	4.3%
Alberta	\$15,251	23.4%	17.4%	7.9%	6.3%	5.0%
British Columbia	\$13,054	64.5%	26.9%	7.9%	6.3%	4.5%
Canada	\$91,823	16.3%	13.3%	7.4%	5.9%	4.6%

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

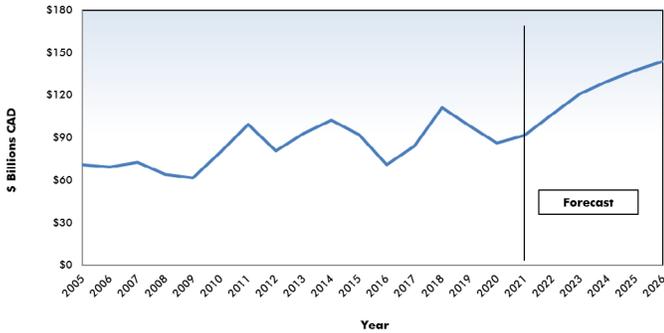
Table 10: Canada Four Largest Provinces: Type-of-Structure Forecasts

(\$ Billions CAD)

		Actuals		Forecasts				
		2020	2021	2022	2023	2024	2025	2026
Quebec	Residential	4.199	5.963	6.100	6.009	6.104	6.357	6.535
	Non-res Building	5.243	7.750	8.105	8.592	9.712	10.608	11.241
	Engineering/Civil	7.380	5.256	6.944	7.407	8.051	8.674	9.079
	Total	16.822	18.969	21.148	22.008	23.867	25.638	26.855
	(Yr vs previous yr % Change)	-20.4%	12.8%	11.5%	4.1%	8.4%	7.4%	4.7%
Ontario	Residential	13.071	14.442	14.366	15.084	15.976	16.548	17.153
	Non-res Building	14.009	6.169	10.632	11.788	12.307	12.879	13.519
	Engineering/Civil	7.326	7.778	8.389	9.233	10.089	10.737	11.301
	Total	34.406	28.389	33.386	36.105	38.372	40.164	41.973
	(Yr vs previous yr % Change)	9.6%	-17.5%	17.6%	8.1%	6.3%	4.7%	4.5%
Alberta	Residential	3.157	4.486	4.553	5.352	5.594	5.725	5.861
	Non-res Building	2.004	2.274	4.968	5.941	6.391	6.742	7.163
	Engineering/Civil	7.578	8.491	9.301	10.803	11.853	12.873	13.583
	Total	12.739	15.251	18.822	22.097	23.838	25.340	26.607
	(Yr vs previous yr % Change)	-29.5%	19.7%	23.4%	17.4%	7.9%	6.3%	5.0%
British Columbia	Residential	4.738	4.838	6.661	7.517	7.889	8.188	8.343
	Non-res Building	2.761	6.598	7.064	7.956	8.506	9.103	9.585
	Engineering/Civil	7.502	1.618	7.752	11.783	13.022	13.992	14.750
	Total	15.001	13.054	21.477	27.256	29.417	31.282	32.678
	(Yr vs previous yr % Change)	-21.9%	-13.0%	64.5%	26.9%	7.9%	6.3%	4.5%

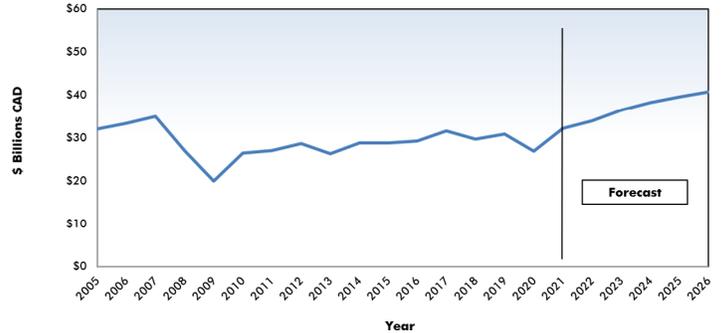
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Graph 19: Canadian Grand Total Construction Starts — ConstructConnect



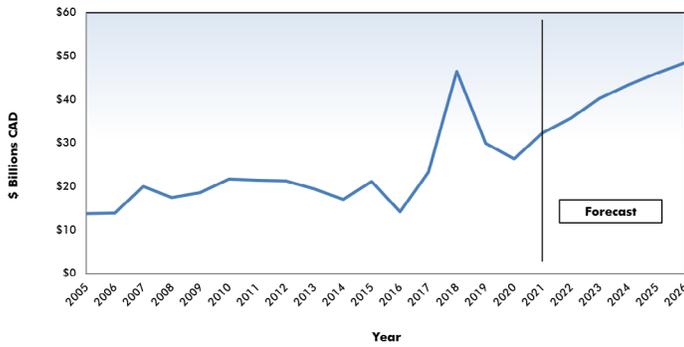
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 20: Canadian Residential Construction Starts — ConstructConnect



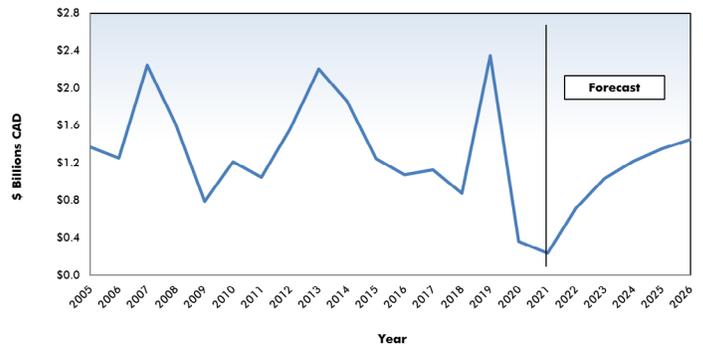
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 21: Canadian Non-Residential Building Starts — ConstructConnect



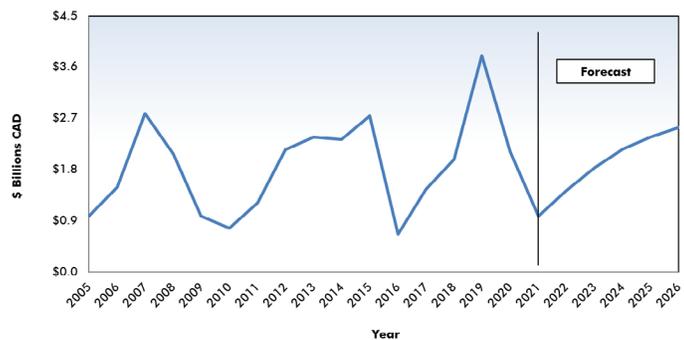
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 22: Canadian Shopping/Retail Construction Starts — ConstructConnect



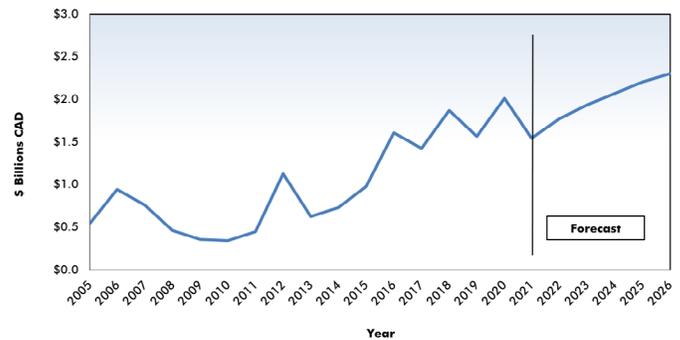
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 23: Canadian Private Offices Construction Starts — ConstructConnect



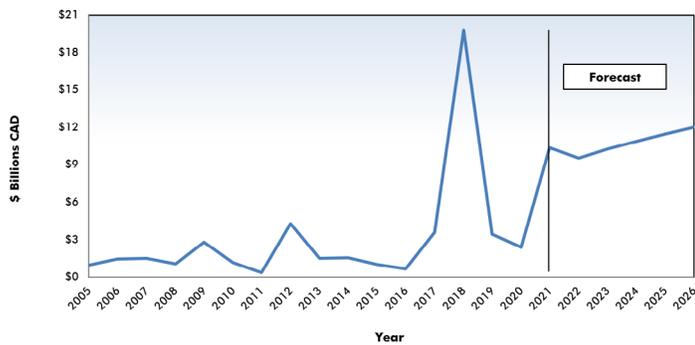
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 24: Canadian Warehouse Construction Starts — ConstructConnect



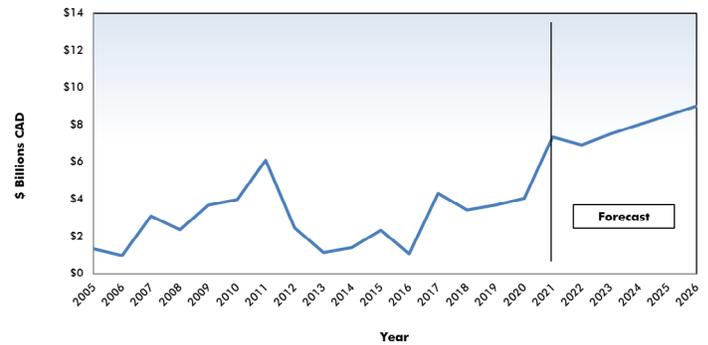
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 25: Canadian Industrial/Manufacturing Construction Starts — ConstructConnect



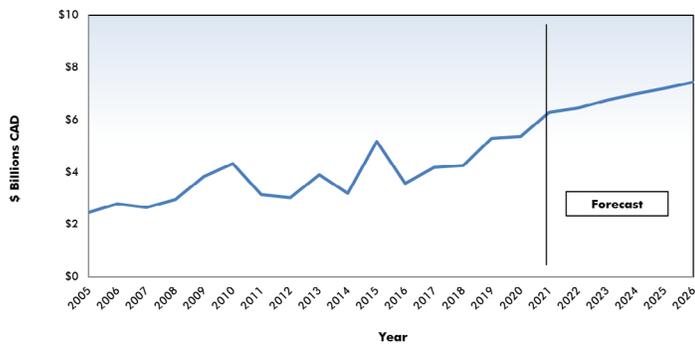
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 26: Canadian Hospital/Clinic Construction Starts — ConstructConnect



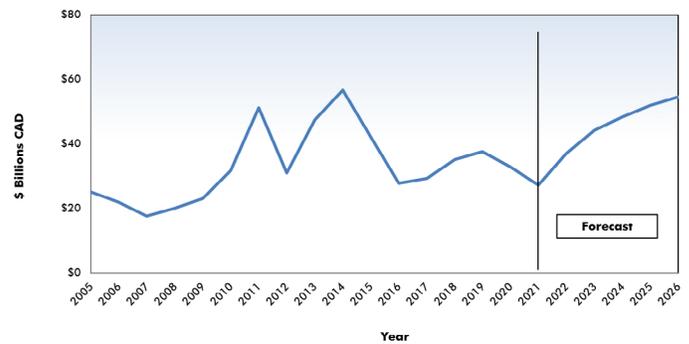
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 27: Canadian Education Construction Starts — ConstructConnect



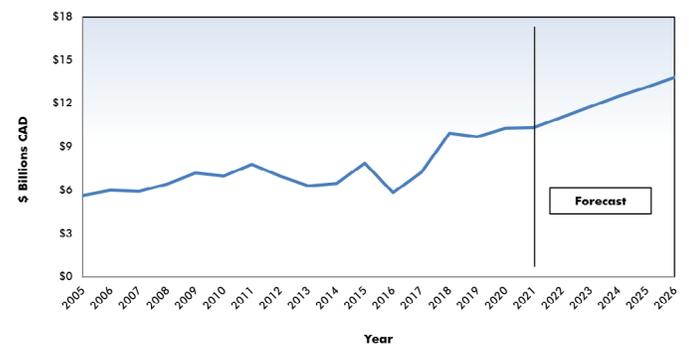
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 28: Canadian Engineering Construction Starts — ConstructConnect



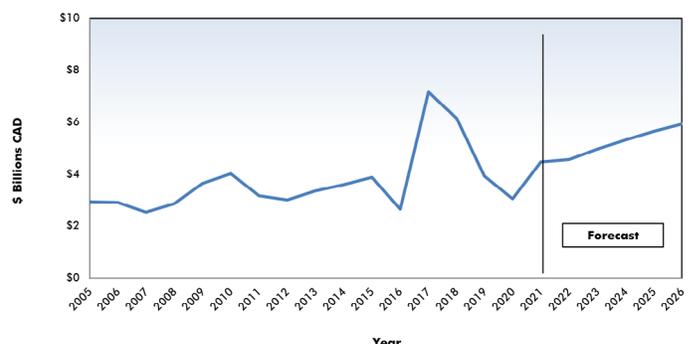
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 29: Canadian Roadwork Construction Starts — ConstructConnect



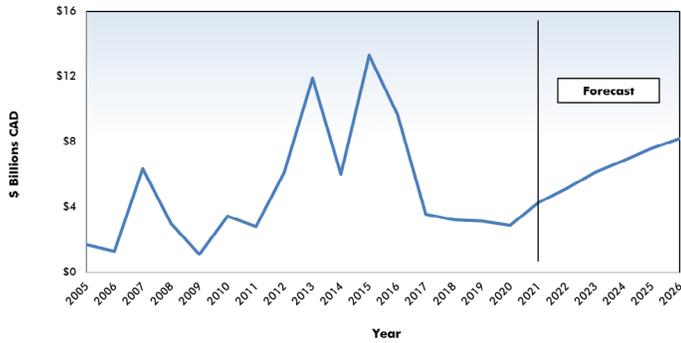
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 30: Canadian Water and Sewage Construction Starts — ConstructConnect



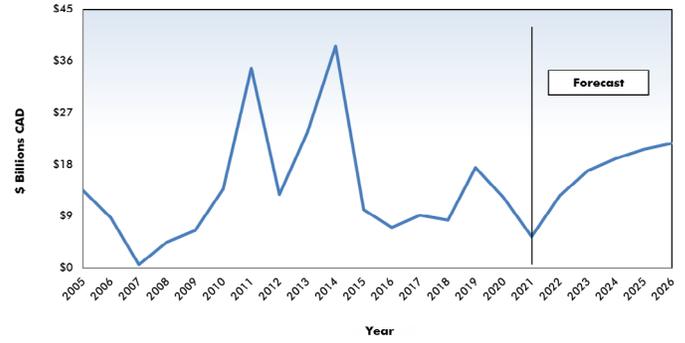
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 31: Canadian Power Infrastructure Construction Starts — ConstructConnect



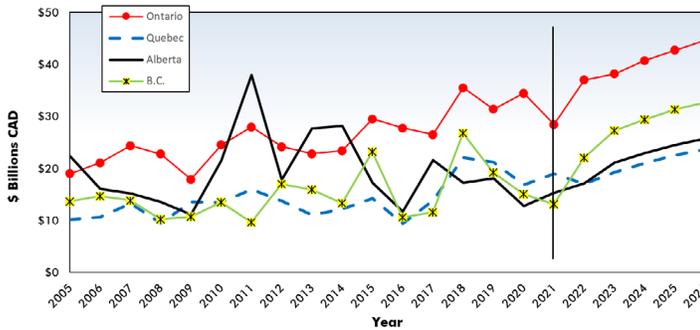
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



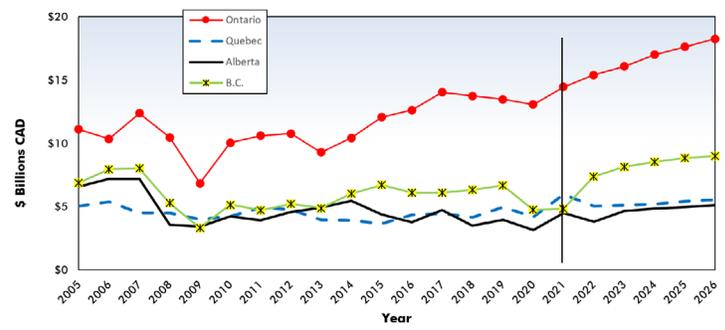
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



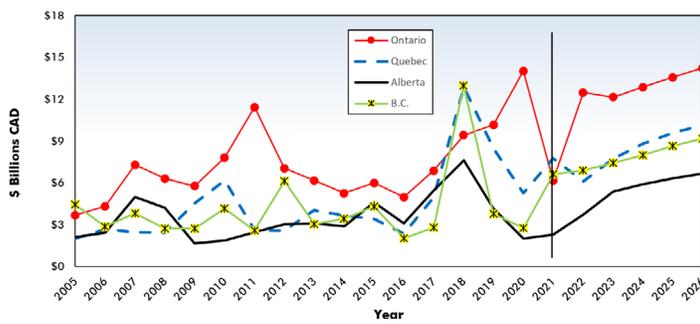
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



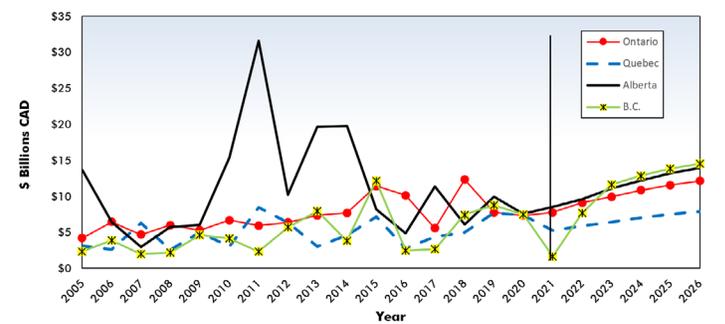
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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				
	2020	2021	2022	2023	2024	2025	2026
Single-family	1,813.2	2,119.0	2,332.5	2,515.8	2,688.4	2,855.3	3,027.0
Multi-family	475.0	495.5	563.2	605.0	646.5	689.6	735.2
TOTAL RESIDENTIAL	2,288.2	2,614.5	2,895.7	3,120.8	3,334.8	3,544.9	3,762.2
<i>(Yr/yr % change)</i>	<i>4.1%</i>	<i>14.3%</i>	<i>10.8%</i>	<i>7.8%</i>	<i>6.9%</i>	<i>6.3%</i>	<i>6.1%</i>
Hotels/Motels	45.1	28.5	46.6	64.6	79.6	87.9	95.0
Shopping/Retail	51.0	47.6	59.3	71.2	85.5	93.0	102.0
Parking Garages	17.1	13.8	17.4	20.0	21.6	23.2	24.3
Amusement	21.6	23.0	23.1	25.0	28.1	30.4	31.6
Private Offices	76.4	61.5	67.8	79.7	90.2	96.4	102.0
Governmental Offices	13.3	16.9	18.0	18.7	19.4	20.0	20.5
Laboratories (Schools & Industrial)	3.1	4.0	4.6	5.2	5.5	5.8	6.1
Warehouses	232.1	239.4	264.9	284.7	299.5	311.7	321.5
Sports Stadium/Convention Center	12.7	13.6	14.8	16.3	17.9	19.0	20.0
Transportation Terminals	4.9	8.1	6.9	10.5	12.7	14.3	15.1
TOTAL COMMERCIAL	477.1	456.4	523.4	595.9	660.0	701.6	738.1
<i>(Yr/yr % change)</i>	<i>-20.5%</i>	<i>-4.3%</i>	<i>14.7%</i>	<i>13.8%</i>	<i>10.8%</i>	<i>6.3%</i>	<i>5.2%</i>
TOTAL INDUSTRIAL (manufacturing)	72.1	73.2	81.2	86.5	93.2	100.0	105.3
<i>(Yr/yr % change)</i>	<i>-32.3%</i>	<i>1.5%</i>	<i>10.9%</i>	<i>6.6%</i>	<i>7.8%</i>	<i>7.2%</i>	<i>5.3%</i>
Religious	3.8	2.6	4.3	5.4	6.6	7.9	9.1
Hospitals/Clinics	17.1	21.2	29.0	35.0	40.0	46.2	50.0
Nursing Homes/Assisted Living	32.4	22.2	27.4	31.3	35.5	38.5	40.8
Libraries/Museums	3.4	2.6	3.3	3.9	4.3	4.4	4.5
Courthouse	3.0	4.0	4.3	4.5	4.8	5.0	5.2
Police/Fire	8.3	7.3	7.6	8.1	8.6	9.0	9.4
Prisons	2.6	1.8	2.3	2.7	2.9	3.1	3.3
Military	22.5	20.7	20.5	22.1	23.7	24.7	25.4
Educational Facilities	148.7	122.8	139.2	149.9	159.6	169.0	175.6
MED misc	15.7	12.8	15.9	18.3	19.6	20.7	21.7
TOTAL INSTITUTIONAL	257.4	218.2	253.7	281.4	305.7	328.5	344.9
<i>(Yr/yr % change)</i>	<i>-12.3%</i>	<i>-15.2%</i>	<i>16.3%</i>	<i>10.9%</i>	<i>8.6%</i>	<i>7.5%</i>	<i>5.0%</i>
Miscellaneous Non-Res Building	20.4	21.5	22.5	23.3	24.0	24.6	25.1
TOTAL NON-RES BLDG	827.0	769.2	880.8	987.0	1,083.0	1,154.7	1,213.5
<i>(Yr/yr % change)</i>	<i>-19.4%</i>	<i>-7.0%</i>	<i>14.5%</i>	<i>12.1%</i>	<i>9.7%</i>	<i>6.6%</i>	<i>5.1%</i>
RESIDENTIAL + NON-RES BLDG	3,115.1	3,383.7	3,776.5	4,107.9	4,417.8	4,699.7	4,975.7
<i>(Yr/yr % change)</i>	<i>-3.4%</i>	<i>8.6%</i>	<i>11.6%</i>	<i>8.8%</i>	<i>7.5%</i>	<i>6.4%</i>	<i>5.9%</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				
	2020	2021	2022	2023	2024	2025	2026
Summary							
NON-RESIDENTIAL BUILDING	827.0	769.2	880.8	987.0	1,083.0	1,154.7	1,213.5
RESIDENTIAL	2,288.2	2,614.5	2,895.7	3,120.8	3,334.8	3,544.9	3,762.2
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,115.1	3,383.7	3,776.5	4,107.9	4,417.8	4,699.7	4,975.7
Verticals							
Offices (private)	76.4	61.5	67.8	79.7	90.2	96.4	102.0
Parking Garages	17.1	13.8	17.4	20.0	21.6	23.2	24.3
Transportation Terminals	4.9	8.1	6.9	10.5	12.7	14.3	15.1
Commercial	98.3	83.5	92.1	110.2	124.5	133.9	141.3
(Yr/Yr % change)	-35.2%	-15.1%	10.4%	19.6%	12.9%	7.6%	5.6%
Amusement	21.6	23.0	23.1	25.0	28.1	30.4	31.6
Libraries / Museums	3.4	2.6	3.3	3.9	4.3	4.4	4.5
Religious	3.8	2.6	4.3	5.4	6.6	7.9	9.1
Sports Arenas / Convention Centers	12.7	13.6	14.8	16.3	17.9	19.0	20.0
Community	41.5	41.9	45.4	50.6	56.9	61.7	65.3
(Yr/Yr % change)	-22.0%	0.8%	8.6%	11.3%	12.5%	8.4%	5.8%
College / University	32.8	24.2	27.6	30.4	32.3	33.9	34.9
Elementary / Pre School	48.1	34.8	41.5	45.7	49.2	52.4	54.8
Jr / Sr High School	62.3	58.3	64.5	67.8	71.8	76.1	79.2
Special / Vocational	5.4	5.5	5.6	6.0	6.3	6.6	6.7
Educational	148.7	122.8	139.2	149.9	159.6	169.0	175.6
(Yr/Yr % change)	-11.5%	-17.4%	13.3%	7.7%	6.5%	5.9%	3.9%
Courthouses	3.0	4.0	4.3	4.5	4.8	5.0	5.2
Fire and Police Stations	8.3	7.3	7.6	8.1	8.6	9.0	9.4
Government Offices	13.3	16.9	18.0	18.7	19.4	20.0	20.5
Prisons	2.6	1.8	2.3	2.7	2.9	3.1	3.3
Government	27.2	30.0	32.2	34.1	35.7	37.1	38.3
(Yr/Yr % change)	-5.5%	10.4%	7.3%	6.0%	4.7%	4.0%	3.3%
Industrial Labs / Labs / School Labs	3.1	4.0	4.6	5.2	5.5	5.8	6.1
Manufacturing	72.1	73.2	81.2	86.5	93.2	100.0	105.3
Warehouses	232.1	239.4	264.9	284.7	299.5	311.7	321.5
Industrial	307.2	316.5	350.6	376.4	398.3	417.5	432.9
(Yr/Yr % change)	-3.2%	3.0%	10.8%	7.3%	5.8%	4.8%	3.7%
Hospitals / Clinics	17.1	21.2	29.0	35.0	40.0	46.2	50.0
Medical Misc.	15.7	12.8	15.9	18.3	19.6	20.7	21.7
Nursing Homes	32.4	22.2	27.4	31.3	35.5	38.5	40.8
Medical	65.1	56.3	72.3	84.6	95.1	105.3	112.5
(Yr/Yr % change)	-30.5%	-13.5%	28.4%	17.0%	12.4%	10.7%	6.8%
Military	22.5	20.7	20.5	22.1	23.7	24.7	25.4
(Yr/Yr % change)	92.9%	-8.2%	-0.8%	7.9%	7.2%	4.1%	2.8%
Hotels	45.1	28.5	46.6	64.6	79.6	87.9	95.0
Retail Misc.	20.4	21.5	22.5	23.3	24.0	24.6	25.1
Shopping	51.0	47.6	59.3	71.2	85.5	93.0	102.0
Retail	116.4	97.6	128.4	159.1	189.1	205.5	222.1
(Yr/Yr % change)	-42.3%	-16.1%	31.5%	23.9%	18.9%	8.7%	8.1%
NON-RESIDENTIAL BUILDING	827.0	769.2	880.8	987.0	1,083.0	1,154.7	1,213.5
(Yr/Yr % change)	-19.4%	-7.0%	14.5%	12.1%	9.7%	6.6%	5.1%
Multi-Family	475.0	495.5	563.2	605.0	646.5	689.6	735.2
Single-Family	1,813.2	2,119.0	2,332.5	2,515.8	2,688.4	2,855.3	3,027.0
RESIDENTIAL	2,288.2	2,614.5	2,895.7	3,120.8	3,334.8	3,544.9	3,762.2
(Yr/Yr % change)	4.1%	14.3%	10.8%	7.8%	6.9%	6.3%	6.1%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,115.1	3,383.7	3,776.5	4,107.9	4,417.8	4,699.7	4,975.7
(Yr/Yr % change)	-3.4%	8.6%	11.6%	8.8%	7.5%	6.4%	5.9%

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				
	2020	2021	2022	2023	2024	2025	2026
Single-family	114.9	154.2	162.8	173.3	178.4	182.8	186.8
Multi-family	67.1	66.4	70.3	76.2	81.5	85.5	88.6
TOTAL RESIDENTIAL	182.0	220.6	233.1	249.5	259.9	268.3	275.4
<i>(Yr/yr % change)</i>	<i>-9.3%</i>	<i>21.2%</i>	<i>5.7%</i>	<i>7.0%</i>	<i>4.2%</i>	<i>3.2%</i>	<i>2.6%</i>
Hotels/Motels	0.9	0.7	1.8	3.0	3.4	3.5	3.6
Private Offices	5.5	4.1	5.7	7.4	8.8	9.6	10.3
Governmental Offices	1.8	1.1	1.4	1.7	2.0	2.2	2.3
Shopping/Retail	3.4	2.1	5.6	8.6	10.3	11.5	12.3
Retail Miscellaneous	0.4	0.3	0.5	0.8	1.0	1.1	1.2
Parking Garages	0.2	0.1	0.3	0.4	0.5	0.7	0.8
Amusement	1.6	3.5	3.7	4.2	4.7	5.2	5.7
Warehouses	10.9	11.4	12.6	13.7	14.9	16.0	16.9
TOTAL COMMERCIAL	24.6	23.3	31.7	39.8	45.5	49.8	53.1
<i>(Yr/yr % change)</i>	<i>-43.6%</i>	<i>-5.6%</i>	<i>36.3%</i>	<i>25.3%</i>	<i>14.4%</i>	<i>9.6%</i>	<i>6.5%</i>
TOTAL INDUSTRIAL (manufacturing)	5.1	2.3	2.9	3.5	4.2	4.7	5.2
<i>(Yr/yr % change)</i>	<i>-20.4%</i>	<i>-55.6%</i>	<i>26.0%</i>	<i>22.6%</i>	<i>19.4%</i>	<i>11.7%</i>	<i>12.0%</i>
Religious	0.1	0.3	0.3	0.3	0.4	0.4	0.4
Hospitals/Clinics	9.4	9.2	9.6	10.5	11.2	11.9	12.6
MED misc	0.2	0.2	0.5	0.7	0.9	1.0	1.1
Transportation Terminals*	0.5	0.2	1.0	1.5	1.7	1.9	2.2
Police/Fire	1.7	1.6	1.6	1.8	1.9	2.0	2.1
Educational Facilities	10.6	12.1	12.5	13.2	13.8	14.3	14.8
TOTAL INSTITUTIONAL	22.5	23.8	25.5	28.0	29.9	31.6	33.2
<i>(Yr/yr % change)</i>	<i>-3.1%</i>	<i>5.5%</i>	<i>7.4%</i>	<i>9.6%</i>	<i>6.7%</i>	<i>5.8%</i>	<i>5.1%</i>
TOTAL NON-RES BLDG	52.3	49.3	60.1	71.2	79.5	86.1	91.5
<i>(Yr/yr % change)</i>	<i>-28.7%</i>	<i>-5.7%</i>	<i>21.9%</i>	<i>18.5%</i>	<i>11.6%</i>	<i>8.3%</i>	<i>6.3%</i>
RESIDENTIAL + NON-RES BLDG	234.2	269.9	293.2	320.7	339.4	354.4	366.9
<i>(Yr/yr % change)</i>	<i>-14.5%</i>	<i>15.2%</i>	<i>8.6%</i>	<i>9.4%</i>	<i>5.8%</i>	<i>4.4%</i>	<i>3.5%</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)

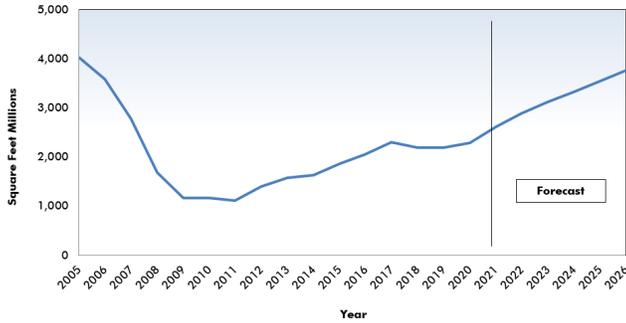
	Actuals		Forecasts				
	2020	2021	2022	2023	2024	2025	2026
Summary							
NON-RESIDENTIAL BUILDING	52.3	49.3	60.1	71.2	79.5	86.1	91.5
RESIDENTIAL	182.0	220.6	233.1	249.5	259.9	268.3	275.4
RESIDENTIAL + NON-RESIDENTIAL BUILDING	234.2	269.9	293.2	320.7	339.4	354.4	366.9
Verticals							
Offices (private)	5.5	4.1	5.7	7.4	8.8	9.6	10.3
Parking Garages	0.2	0.1	0.3	0.4	0.5	0.7	0.8
Transportation Terminals	0.5	0.2	1.0	1.5	1.7	1.9	2.2
Commercial	6.1	4.4	7.0	9.3	11.0	12.2	13.3
(Yr/yr % change)	-52.3%	-28.2%	57.8%	34.0%	18.4%	10.8%	8.6%
Amusement	1.6	3.5	3.7	4.2	4.7	5.2	5.7
Religious	0.1	0.3	0.3	0.3	0.4	0.4	0.4
Community	1.7	3.8	4.0	4.5	5.1	5.6	6.1
(Yr/yr % change)	-59.1%	124.6%	4.3%	13.7%	11.7%	10.5%	9.4%
Educational	10.6	12.1	12.5	13.2	13.8	14.3	14.8
(Yr/yr % change)	-14.5%	14.7%	3.3%	5.5%	4.2%	4.0%	3.7%
Fire and Police Stations	1.7	1.6	1.6	1.8	1.9	2.0	2.1
Government Offices	1.8	1.1	1.4	1.7	2.0	2.2	2.3
Government	3.5	2.7	3.1	3.5	3.9	4.2	4.4
(Yr/yr % change)	-12.6%	-22.2%	11.4%	14.1%	11.5%	8.1%	5.4%
Manufacturing	5.1	2.3	2.9	3.5	4.2	4.7	5.2
Warehouses	10.9	11.4	12.6	13.7	14.9	16.0	16.9
Industrial	16.0	13.7	15.5	17.2	19.1	20.7	22.1
(Yr/yr % change)	-5.0%	-14.5%	13.0%	10.9%	11.0%	8.6%	6.7%
Hospitals / Clinics	9.4	9.2	9.6	10.5	11.2	11.9	12.6
Medical Misc.	0.2	0.2	0.5	0.7	0.9	1.0	1.1
Medical	9.6	9.5	10.1	11.2	12.1	12.9	13.7
(Yr/yr % change)	9.0%	-1.5%	6.8%	10.4%	8.3%	6.9%	5.7%
Hotels	0.9	0.7	1.8	3.0	3.4	3.5	3.6
Retail Misc.	0.4	0.3	0.5	0.8	1.0	1.1	1.2
Shopping	3.4	2.1	5.6	8.6	10.3	11.5	12.3
Retail	4.6	3.0	8.0	12.3	14.6	16.1	17.1
(Yr/yr % change)	-67.2%	-35.3%	164.6%	54.9%	18.3%	10.5%	5.9%
NON-RESIDENTIAL BUILDING	52.3	49.3	60.1	71.2	79.5	86.1	91.5
(Yr/yr % change)	-28.7%	-5.7%	21.9%	18.5%	11.6%	8.3%	6.3%
Multi-Family	67.1	66.4	70.3	76.2	81.5	85.5	88.6
Single-Family	114.9	154.2	162.8	173.3	178.4	182.8	186.8
RESIDENTIAL	182.0	220.6	233.1	249.5	259.9	268.3	275.4
(Yr/yr % change)	-9.3%	21.2%	5.7%	7.0%	4.2%	3.2%	2.6%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	234.2	269.9	293.2	320.7	339.4	354.4	366.9
(Yr/yr % change)	-14.5%	15.2%	8.6%	9.4%	5.8%	4.4%	3.5%

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'.

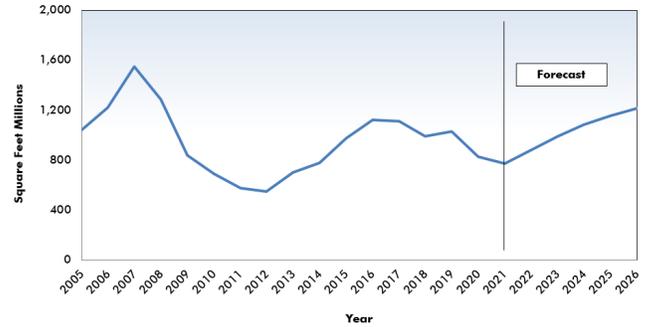
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

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



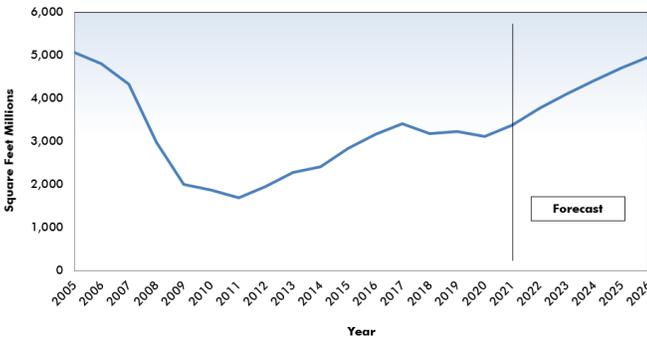
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



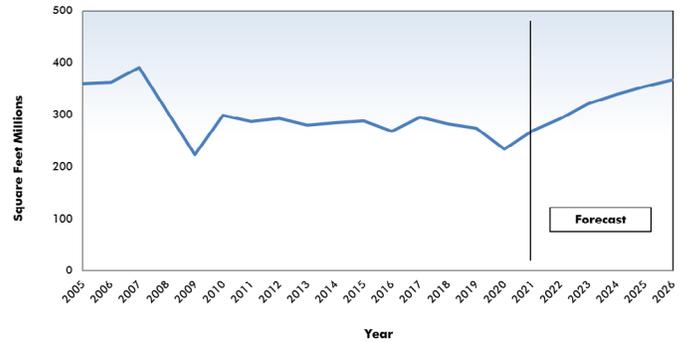
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



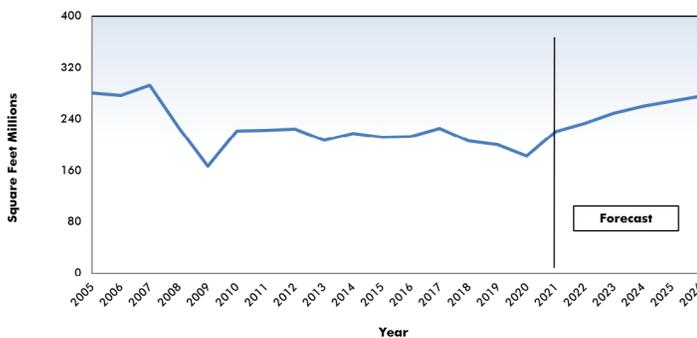
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



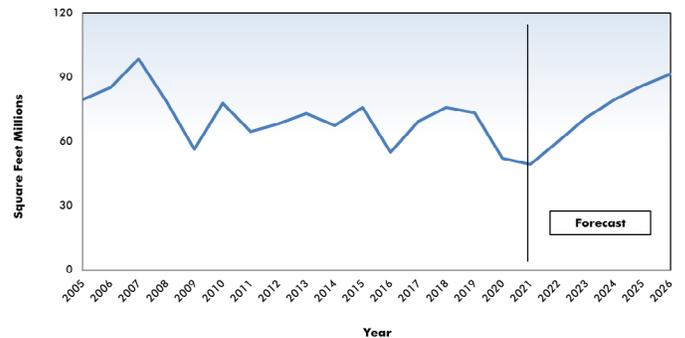
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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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