

Summer 2022 (For May 2022 Release)

Construction Starts Forecast

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Highlights

- US construction starts grew 4.1% year-on-year (y/y) in Q1 2022. Residential starts increased 7.7% and civil engineering grew 21.9%, but non-residential building fell by 12.5%. However, construction was much weaker in square footage terms, a volume metric, reflecting both the impact of inflation and the relatively strong performance of engineering projects, which do not have an associated area.
- GDP unexpectedly declined in Q1 2022, but this reflects a drag from net trade, inventories, and public spending. Going forward, we believe the economy will prove resilient to rising headwinds from higher inflation and a more aggressive Fed tightening cycle, but the risks are tilted to the downside. We expect the economy to grow 3.1% this year before slowing to 2% next year.
- Total construction starts, in current US dollar terms, are expected to rise 10.9% in 2022 and post a similar pace of growth in 2023. Engineering projects are expected to lead the advance, with solid growth in new residential construction and a slower pace of expansion in the non-residential building segment. Growth in construction in square footage terms, however, is expected to be more modest due to the impact of higher prices.
- Total Canadian construction starts fell 28.3% y/y in Q1 2022 with declines in all three subsectors. Unlike in the US, however, there was not a large gap between construction in value and square footage terms.
- After the weak start to the year, total Canadian constructions starts are expected to slow to 5.5% growth this year, from 12.6% in 2021. Growth will be fully driven by a rise in engineering starts; non-residential building starts are expected to decline, and new residential construction is forecast to broadly stagnate. (Canada recorded its highest annual level of housing starts ever in 2021.)

Sources: ConstructConnect®/Oxford Economics.
Forecast reflects actual starts through Q1 2022.

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Overview

Engineering projects underpinned construction in Q1

Total US construction starts in dollar terms increased 4.1% y/y in Q1 2022, with divergent outcomes across the three headline sectors of residential building, non-residential building, and civil engineering. New homebuilding increased 7.7% on the year, non-residential building declined 12.5%, while civil engineering led the pack, growing by 21.9%. However, new construction in square footage terms, a volume metric, declined 16.5% y/y. One reason is because most engineering projects do not have an associated square footage, but in addition, non-residential building in square feet terms was significantly weaker than in value terms, reflecting the impact of higher prices.

Three sub-sectors in the non-residential building segment posted year-on-year declines of more than 50%: courthouses, military, and hospitals. All posted low levels of activity, with only hospitals having a mega project (projects valued at over \$1 billion) drop out of the annual calculation from a year earlier. New office building continued to disappoint – y/y starts decreased 26%. This is especially stark given how much office building declined during the course of the pandemic – private office starts were 65% lower than their average in 2019. Although several sectors posted growth, in most cases, this comes on the back of an exceptionally weak Q1 2021. The most notable case is in the construction of new transportation terminals, which increased 244% y/y, but this was after a record low level of construction in the same period last year. No mega projects in the non-residential building sector were reported in the first quarter of the year, with the largest project being a \$950 million diesel plant started in Louisiana in January.

Engineering construction, by contrast, increased at its strongest y/y pace since 2019, with growth posted in most engineering sub-sectors. Construction of airports and dams, canals, & marine works posted the two strongest y/y growth rates of 86% and 51% respectively, but both sectors rebounded from an especially weak level a year earlier. Road construction grew 46% y/y to stand at a record high for Q1 construction, and new power infrastructure increased 38% y/y despite a mega project dropping out of the annual calculation. In fact, the only mega project reported in any sector in Q1 was a \$2 billion wind farm in New York, classified under the power sector. Within engineering, only construction in the miscellaneous sector fell from its level a year earlier.

Table 1: Summary forecasts							
(Annual percentage changes unless specified otherwise)							
	2020	2021	2022	2023	2024	2025	2026
US							
Macro variables							
GDP	-3.4	5.7	3.1	2.0	2.0	2.3	2.1
Population growth	0.4	0.1	0.2	0.4	0.5	0.5	0.5
Unemployment rate (%)	8.1	5.4	3.5	3.4	3.5	3.5	3.5
Real disposable income	6.2	2.2	-4.6	2.8	2.6	1.8	1.6
Central bank rate (%)	0.4	0.1	1.1	2.5	2.0	2.0	2.0
10-year government yield (%)	0.9	1.4	2.5	2.8	2.8	2.8	2.8
Construction starts (% growth in U.S.\$)							
Total starts	-15.0	8.1	10.9	11.0	7.9	5.9	5.2
Residential	1.2	17.1	11.3	6.6	5.7	5.6	6.1
Non-res bldg	-27.2	1.5	5.3	16.0	9.5	6.2	4.5
Civil engineering	-18.3	0.9	19.1	13.5	10.2	6.3	4.6
Canada							
Macro variables							
GDP	-5.2	4.6	4.1	2.2	1.8	2.3	2.0
Population growth	1.2	0.5	1.2	1.1	1.0	1.0	1.0
Unemployment rate (%)	9.6	7.4	5.7	6.0	6.1	6.0	6.0
Real disposable income	8.4	0.0	-1.3	2.5	2.0	1.6	1.7
Central bank rate (%)	0.6	0.3	1.0	1.8	2.0	2.0	2.0
10-year government yield (%)	0.8	1.4	2.5	2.8	2.8	2.8	2.8
Exchange rate C\$ per US\$	1.34	1.25	1.27	1.30	1.27	1.22	1.18
Construction starts (% growth in C\$)							
Total starts	-12.4	12.6	5.5	20.3	7.9	5.6	5.0
Residential	-12.6	27.0	0.5	10.1	5.9	4.7	3.7
Non-res bldg	-12.1	31.0	-6.7	21.9	7.8	7.3	6.0
Civil engineering	-12.4	-13.9	26.3	28.5	9.6	5.0	5.2

In the residential sector, new construction grew in both the single-family and multi-family segments, by 10.5% and 0.6% respectively. Single-family homebuilding has outpaced apartment building since the onset of the pandemic, but we expect growth in the two sectors to flip in the coming years.

Put-in-place (PIP) construction, a measure of work-in-progress, increased 11.2% y/y in February, driven by a 16.5% increase in residential activity. Non-residential PIP, which includes both non-residential building and infrastructure projects, initially lagged residential construction, but it has now reported y/y growth every month since September 2021. ConstructConnect and its partner, 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.

Soaring prices for construction and building materials have played a key role in US construction since early-2021. Prices for

construction building materials grew 23.3% y/y in March, a slight deceleration from its record high of 24.3% in February. Material price inflation has shown signs of stabilising or falling in some sectors, but lumber and wood prices, which had fallen into deflationary territory in the middle of last year, are now increasing again. Labor shortages remain another concern, especially since the sector is relatively labor-intensive. The JOLTS survey of job openings remains at an elevated level, and hourly wages were up 5.7% y/y in March.

Inflation to spur aggressive Fed policy tightening

GDP declined at an annual pace of 1.4% in Q1 2022, below expectations, but this mainly reflected a drag from net trade, slower inventory accumulation, and decreased public spending. Going forward, we believe the economy will prove resilient to rising headwinds from higher inflation and a more aggressive Fed tightening cycle, but risks are tilted to the downside. We expect the economy to grow 3.1% this

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year before slowing to 2% in 2023 as the Fed's tightening cycle bites.

The labor market has continued from strength to strength even as the economy faces challenges. 431,000 jobs were added in March, and the unemployment rate fell to a cycle low of 3.6%. We see the economy adding around 4mn jobs this year and the unemployment rate falling toward 3.3%. Although surging prices for non-discretionary items will put pressure on household budgets, the strong job market and high levels of household savings should underpin robust growth in consumer spending.

The Russia-Ukraine war and Covid-related lockdowns in China will only compound surging inflation via higher commodity prices and intensifying supply-chain pressures. We now expect a higher near-term peak in inflation and a slower descent through 2022. We forecast the consumer price index (CPI) to average 8.5% in Q2 2022 and average 7.4% this year and core CPI inflation to rise 6.7% in Q2 and average 6.2% in 2022.

The Federal Open Market Committee (FOMC) raised interest rates by 25 basis points (bp) in March, kicking off a tightening cycle. Recent communication has shown policymakers' discomfort with the rapid pace of inflation. Several FOMC members have favored one or more 50bp rate increases in the coming meetings, and we now expect a 50bp rise in each of the May and June FOMC policy meetings. Overall, we forecast another 175bp increase in interest rates this year, and the FOMC is also expected to start shrinking its balance sheet from May.

Engineering projects to lead new construction in 2022

Total construction starts, in current US dollar terms, are expected to rise 10.9% in 2022 and post a similar pace of growth in 2023. Engineering projects are expected to lead growth, rising 19.1% this year and 13.5% in 2023. New residential construction is expected to rise 11.3%, a slowdown from 17.1% growth posted in 2021. Non-residential building is forecast to grow just 5.3% in 2022 after a weak Q1.

Growth in square foot construction, however, is expected to be more modest. Under normal circumstances, construction in both value and square footage terms tend to move broadly in line with one another, but there are a number of factors underpinning divergent outcomes this year. First, construction in value terms includes both the impact of prices and volumes, so are therefore impacted by higher inflation. By contrast, square foot construction is a

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

volume metric, meaning that it does not increase when prices rise. Furthermore, most engineering projects, the key driver of construction growth this year, do not have an associated area. But even on a like-for-like basis, residential and non-residential building is expected to increase 10.6% in value terms this year and considerably less in square foot terms.

Civil engineering construction will be boosted by 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. As a result, we expect new construction to expand at a double-digit pace from 2022-24, with broad-based growth forecast across all subsectors.

Construction of new power infrastructure is expected to lead the advance this year, with double-digit growth expected for most of the forecast period. The sector was boosted by a mega project earlier this year. It will also be key to the adoption of green economic policies which will require upgrades to the power grid and implementation of electric vehicle charging infrastructure. The miscellaneous civil engineering subsector, which includes oil & gas, tunnels, and railway projects, has been slower to recover than other engineering sectors. Nonetheless, new construction activity in the sector is expected to pick up later this year with several pipeline and transportation projects expected to come on stream over the next five years. The sanctions on Russia have highlighted the need for the US to bolster its oil & gas infrastructure and logistics, and high commodity prices provide an incentive for such investment.

Residential construction starts are fore-

cast to grow by 11.3% in 2022, driven by high home prices and the ongoing housing shortage. We expect apartment construction to drive growth over the next couple of years, rising 18.6% this year and 10.8% in 2023. This represents a rotation in the subsectors from 2021, with multi-family units supported by younger millennials and Gen Z returning to cities 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. Construction of single-family homes is expected to slow to 8.6% this year and 4.8% in 2023. Mortgage interest rates have already risen above 5%, from just over 3% at the end of last year in anticipation of an increase in the Federal Funds Rate.

The non-residential building sector has been the slowest to recover from the pandemic, and the peak in growth has now been pushed out until next year. This segment was hard-hit by the pandemic with hybrid working practices, social distancing measures and restrictions on travel and entertainment limiting demand. With health conditions improving and the economy mostly fully opened, there is significant pent-up demand for these facilities. Most of the sub-sectors that are expected to post big declines this year either experienced strong growth through the pandemic (warehouses) or posted bumper growth last year (transportation terminals).

The hotel & motel subsector is forecast to be the fastest growing sector over the next two years, with growth of 48.8% and 54.1% pencilled in for 2022 and 2023 respectively. Groundbreaking on a number of large hotel projects is expected in 2022 and 2023, and there is significant pent-up demand for travel and tourism. However, construction in

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the sector fell sharply during the pandemic, and even with such strong growth, the level of construction is expected to be nearly 24% below its 2017 peak at the end of our forecast period in 2026. Other sectors that should benefit from the gradual normalization of the economy include shopping, parking garages, amusement, and private office building, although a disappointing Q1 outturn in the latter sector has shifted much of the rebound into 2023-24.

Growth in the industrial sector is expected to slow to 5.9% this year, following an expansion of 47.8% 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 in their plastic and PVC plants in Louisiana, and Geismar's \$1.3 billion methanol plant in Louisiana. Going forward, the Biden administration has pledged support for strategic manufacturing sectors such as semiconductors, and rising energy prices are likely to spur investment in new LNG production capacity. We therefore don't expect the large pullback in sector construction typically seen after a bumper growth year.

Canadian construction expected to slow in 2022

Total Canadian construction starts fell 28.3% y/y in Q1 2022. All three subsectors decreased – residential building by 13.7%, non-residential building by 52.7%, and civil engineering by 15.6%. Unlike in the US, there was not as large a gap between construction in value and square footage terms.

In the non-residential sector, there were significant divergences in the outcomes across the sub-sectors. Several sectors posted declines of more than 75%, including hotels & motels, private offices, manufacturing, religious, and transportation terminals. In contrast, new construction of both parking garages and miscellaneous retail posted y/y growth above 1000%, while medical miscellaneous grew more than 150% y/y. However, all three sectors are quite small, so minor changes in construction activity can lead to large swings in growth.

The steepest decline in the engineering segment was in the power infrastructure sub-sector, which declined nearly 90% y/y. However, there were decreases across a number of other sub-sectors, including dams, canals & marine works, water, sewage, & treatment, and roads. These declines were only partially offset by growth in the bridges and the miscellaneous civil engineering segments.

In the residential sector, both single-family and multi-family starts fell at a similar pace, of 16.9% and 10.3% y/y respectively. In the case of single-family construction, this represents the first decline since Q3 2020. Apartment building has been significantly more volatile during the post-pandemic recovery.

While the Canadian economy proved resilient in Q1 2022 amid Omicron and tighter restrictions, a more hawkish Bank of Canada, spill over effects from the Russia-Ukraine war, and a correction in house prices are expected to slow growth later in the year and through 2023. We forecast GDP growth of 4.1% in 2022 before weakening to 2.2% in 2023. The labor market remains strong, with another solid 72,500 jobs added in March, and the unemployment rate falling to a historic low of 5.3%.

Going forward, job growth should slow to a more modest pace as the bounce from the reopening of the economy fades. Inflation forecast to peak at 6.7% in Q2 2022 as energy and food prices surge. However, disinflationary forces from gradually improving supply chains, falling global energy and commodity prices, and more aggressive rate hikes by the Bank of Canada are expected to bring inflation down sharply next year. The Bank of Canada raised the overnight rate by 50bps in April to 1% and announced the beginning of the process of shrinking its balance sheet. We expect the Bank will continue to tighten monetary policy in the near term and raise the overnight interest rate to 1.5% by July. But thereafter, we believe the Bank will take a cautious approach to raising rates to avoid aggravating Canada's underlying household debt and house price vulnerabilities. We expect the policy rate to settle at 2% by mid-2023.

After the weak start to the year, total

Canadian constructions starts are expected to slow to 5.5% growth this year, from 12.6% in 2021. Growth will be fully driven by a rise in engineering starts; non-residential building starts are expected to decline, and new residential construction is forecast to stagnate.

New engineering projects are expected to grow 26.3% this year and post a similar pace of growth in 2023 (+28.5%). The miscellaneous civil engineering subsector is expected to lead growth this year, rising over 130% in 2022. This subsector includes oil and gas projects, and as in the US, higher oil prices should encourage investment in the sector and related infrastructure. Growth is also expected in bridges and dams, canals & marine works. Like in the US, investment in power infrastructure is key to the green economy, but the weak Q1 now means we expect a small decline this year. Sector construction is expected to pick up robustly next year, rising 55%.

The non-residential building sector is expected to decline 6.7% this year, but this follows a strong expansion in 2021. Many of the sectors expected to shrink this year posted strong growth in 2021. This is most notable in manufacturing construction, with a large potash mine in Saskatchewan expected to drop out of the annual calculations. Despite the expected contraction, the sector has underlying strength with several large LNG and refinery plants expected to begin construction over the next two years. Outside of manufacturing, commercial sectors hit hard by the pandemic, such as hotels, retail, parking garages, and private office building are expected to return to growth as the economy reopens, with growth accelerating next year in many of these sectors.

Residential construction starts are forecast to slow to just 0.5% growth in 2022, with growth in apartment building more than offsetting a decline in single-family homebuilding. As the recovery from the 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 average growth in multi-family starts to outpace single-family units going into the medium-term.

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

	Actuals		Forecasts				
	2020	2021	2022	2023	2024	2025	2026
Single-family	219.284	257.584	279.722	293.271	310.441	333.148	353.527
Multi-family	82.135	95.511	113.269	125.507	132.012	134.002	142.007
TOTAL RESIDENTIAL	301.419	353.096	392.991	418.778	442.453	467.149	495.533
<i>(Yr/yr % change)</i>	<i>1.2%</i>	<i>17.1%</i>	<i>11.3%</i>	<i>6.6%</i>	<i>5.7%</i>	<i>5.6%</i>	<i>6.1%</i>
Hotels/Motels	10.194	7.005	10.423	16.066	18.853	20.682	21.789
Shopping/Retail	12.279	12.740	15.391	17.230	19.562	21.707	23.196
Parking Garages	1.740	1.715	1.889	2.395	2.624	2.845	2.986
Amusement	6.300	6.520	7.148	7.671	8.523	9.115	9.513
Private Offices	25.893	19.181	19.461	24.561	27.810	30.744	32.904
Governmental Offices	10.663	11.783	12.048	12.818	13.660	14.317	14.674
Laboratories (Schools & Industrial)	2.351	2.378	2.706	2.930	3.104	3.235	3.377
Warehouses	26.219	26.911	24.006	27.986	28.996	30.010	32.030
Sports Stadium/Convention Center	4.516	5.663	5.550	7.428	8.273	8.903	9.271
Transportation Terminals	2.361	9.158	8.500	9.599	10.499	11.101	11.496
TOTAL COMMERCIAL	102.516	103.053	107.122	128.685	141.903	152.658	161.237
<i>(Yr/yr % change)</i>	<i>-29.2%</i>	<i>0.5%</i>	<i>3.9%</i>	<i>20.1%</i>	<i>10.3%</i>	<i>7.6%</i>	<i>5.6%</i>
TOTAL INDUSTRIAL (manufacturing)	21.741	32.123	34.003	39.003	42.016	43.015	44.001
<i>(Yr/yr % change)</i>	<i>-61.0%</i>	<i>47.8%</i>	<i>5.9%</i>	<i>14.7%</i>	<i>7.7%</i>	<i>2.4%</i>	<i>2.3%</i>
Religious	1.623	1.025	1.232	1.431	1.511	1.579	1.612
Hospitals/Clinics	13.352	17.568	18.198	20.500	22.500	24.004	25.001
Nursing Homes/Assisted Living	7.485	5.814	6.287	7.394	8.389	9.004	9.544
Libraries/Museums	3.807	3.571	3.768	4.161	4.572	4.788	4.972
Courthouse	2.376	2.484	2.194	2.790	2.954	3.108	3.247
Police/Fire	3.313	3.032	3.178	3.455	3.616	3.775	3.926
Prisons	2.389	2.243	2.364	2.618	2.835	2.977	3.088
Military	9.207	9.388	9.608	12.001	13.475	13.736	13.928
Educational Facilities	67.540	59.576	64.194	70.853	76.347	81.102	84.344
MED misc	8.212	7.164	8.126	9.707	11.538	12.453	13.004
TOTAL INSTITUTIONAL	119.305	111.864	119.150	134.909	147.738	156.525	162.666
<i>(Yr/yr % change)</i>	<i>-11.3%</i>	<i>-6.2%</i>	<i>6.5%</i>	<i>13.2%</i>	<i>9.5%</i>	<i>5.9%</i>	<i>3.9%</i>
Miscellaneous Non-Res Building	5.794	6.145	6.375	6.651	6.923	7.220	7.538
TOTAL NON-RES BLDG	249.356	253.186	266.650	309.249	338.580	359.418	375.442
<i>(Yr/yr % change)</i>	<i>-27.2%</i>	<i>1.5%</i>	<i>5.3%</i>	<i>16.0%</i>	<i>9.5%</i>	<i>6.2%</i>	<i>4.5%</i>
Airport	6.028	5.209	5.777	6.628	7.406	8.064	8.488
Roads	63.653	67.488	80.382	87.936	95.703	100.556	105.435
Bridges	22.761	18.004	22.455	25.502	27.495	29.303	30.501
Dams/Canal/Marine	8.283	8.503	10.500	11.503	12.101	12.701	13.099
Water & Sewage Treatment	31.247	34.023	36.814	42.047	45.899	48.219	49.436
Misc Civil (Power, etc.)	22.727	22.865	29.916	37.229	43.675	48.033	51.288
TOTAL ENGINEERING	154.699	156.092	185.843	210.845	232.279	246.876	258.249
<i>(Yr/yr % change)</i>	<i>-18.3%</i>	<i>0.9%</i>	<i>19.1%</i>	<i>13.5%</i>	<i>10.2%</i>	<i>6.3%</i>	<i>4.6%</i>
TOTAL NON-RESIDENTIAL	404.055	409.278	452.493	520.094	570.859	606.293	633.690
<i>(Yr/yr % change)</i>	<i>-24.0%</i>	<i>1.3%</i>	<i>10.6%</i>	<i>14.9%</i>	<i>9.8%</i>	<i>6.2%</i>	<i>4.5%</i>
GRAND TOTAL	705.474	762.373	845.484	938.872	1013.312	1,073.443	1,129.223
<i>(Yr/yr % change)</i>	<i>-15.0%</i>	<i>8.1%</i>	<i>10.9%</i>	<i>11.0%</i>	<i>7.9%</i>	<i>5.9%</i>	<i>5.2%</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	156.092	185.843	210.845	232.279	246.876	258.249
NON-RESIDENTIAL BUILDING	249.356	253.186	266.650	309.249	338.580	359.418	375.442
RESIDENTIAL	301.419	353.096	392.991	418.778	442.453	467.149	495.533
GRAND TOTAL	705.474	762.373	845.484	938.872	1013.312	1,073.443	1,129.223
Verticals							
Airport	6.028	5.209	5.777	6.628	7.406	8.064	8.488
All Other Civil	18.166	14.008	17.699	21.756	25.567	28.119	29.948
Bridges	22.761	18.004	22.455	25.502	27.495	29.303	30.501
Dams / Canals / Marine Work	8.283	8.503	10.500	11.503	12.101	12.701	13.099
Power Infrastructure	4.560	8.857	12.216	15.473	18.108	19.914	21.340
Roads	63.653	67.488	80.382	87.936	95.703	100.556	105.435
Water and Sewage Treatment	31.247	34.023	36.814	42.047	45.899	48.219	49.436
CIVIL	154.699	156.092	185.843	210.845	232.279	246.876	258.249
<i>(Yr/yr % change)</i>	<i>-18.3%</i>	<i>0.9%</i>	<i>19.1%</i>	<i>13.5%</i>	<i>10.2%</i>	<i>6.3%</i>	<i>4.6%</i>
Offices (private)	25.893	19.181	19.461	24.561	27.810	30.744	32.904
Parking Garages	1.740	1.715	1.889	2.395	2.624	2.845	2.986
Transportation Terminals	2.361	9.158	8.500	9.599	10.499	11.101	11.496
Commercial	29.994	30.054	29.851	36.556	40.932	44.690	47.387
<i>(Yr/yr % change)</i>	<i>-40.6%</i>	<i>0.2%</i>	<i>-0.7%</i>	<i>22.5%</i>	<i>12.0%</i>	<i>9.2%</i>	<i>6.0%</i>
Amusement	6.300	6.520	7.148	7.671	8.523	9.115	9.513
Libraries / Museums	3.807	3.571	3.768	4.161	4.572	4.788	4.972
Religious	1.623	1.025	1.232	1.431	1.511	1.579	1.612
Sports Arenas / Convention Centers	4.516	5.663	5.550	7.428	8.273	8.903	9.271
Community	16.246	16.778	17.698	20.691	22.880	24.385	25.368
<i>(Yr/yr % change)</i>	<i>-30.5%</i>	<i>3.3%</i>	<i>5.5%</i>	<i>16.9%</i>	<i>10.6%</i>	<i>6.6%</i>	<i>4.0%</i>
College / University	17.920	14.943	16.849	18.963	20.237	21.254	21.919
Elementary / Pre School	19.834	15.672	17.946	19.357	20.834	22.295	23.297
Jr / Sr High School	27.830	26.953	27.423	30.374	32.952	35.139	36.664
Special / Vocational	1.955	2.007	1.977	2.159	2.325	2.414	2.463
Educational	67.540	59.576	64.194	70.853	76.347	81.102	84.344
<i>(Yr/yr % change)</i>	<i>-11.0%</i>	<i>-11.8%</i>	<i>7.8%</i>	<i>10.4%</i>	<i>7.8%</i>	<i>6.2%</i>	<i>4.0%</i>
Courthouses	2.376	2.484	2.194	2.790	2.954	3.108	3.247
Fire and Police Stations	3.313	3.032	3.178	3.455	3.616	3.775	3.926
Government Offices	10.663	11.783	12.048	12.818	13.660	14.317	14.674
Prisons	2.389	2.243	2.364	2.618	2.835	2.977	3.088
Government	18.742	19.542	19.784	21.681	23.065	24.176	24.935
<i>(Yr/yr % change)</i>	<i>0.3%</i>	<i>4.3%</i>	<i>1.2%</i>	<i>9.6%</i>	<i>6.4%</i>	<i>4.8%</i>	<i>3.1%</i>
Industrial Labs / Labs / School Labs	2.351	2.378	2.706	2.930	3.104	3.235	3.377
Manufacturing	21.741	32.123	34.003	39.003	42.016	43.015	44.001
Warehouses	26.219	26.911	24.006	27.986	28.996	30.010	32.030
Industrial	50.312	61.413	60.715	69.919	74.117	76.259	79.409
<i>(Yr/yr % change)</i>	<i>-37.7%</i>	<i>22.1%</i>	<i>-1.1%</i>	<i>15.2%</i>	<i>6.0%</i>	<i>2.9%</i>	<i>4.1%</i>
Hospitals / Clinics	13.352	17.568	18.198	20.500	22.500	24.004	25.001
Medical Misc.	8.212	7.164	8.126	9.707	11.538	12.453	13.004
Nursing Homes	7.485	5.814	6.287	7.394	8.389	9.004	9.544
Medical	29.048	30.546	32.611	37.600	42.427	45.461	47.550
<i>(Yr/yr % change)</i>	<i>-28.7%</i>	<i>5.2%</i>	<i>6.8%</i>	<i>15.3%</i>	<i>12.8%</i>	<i>7.2%</i>	<i>4.6%</i>
Military	9.207	9.388	9.608	12.001	13.475	13.736	13.928
<i>(Yr/yr % change)</i>	<i>82.4%</i>	<i>2.0%</i>	<i>2.3%</i>	<i>24.9%</i>	<i>12.3%</i>	<i>1.9%</i>	<i>1.4%</i>
Hotels	10.194	7.005	10.423	16.066	18.853	20.682	21.789
Retail Misc.	5.794	6.145	6.375	6.651	6.923	7.220	7.538
Shopping	12.279	12.740	15.391	17.230	19.562	21.707	23.196
Retail	28.267	25.890	32.189	39.947	45.337	49.609	52.522
<i>(Yr/yr % change)</i>	<i>-40.8%</i>	<i>-8.4%</i>	<i>24.3%</i>	<i>24.1%</i>	<i>13.5%</i>	<i>9.4%</i>	<i>5.9%</i>
NON-RESIDENTIAL BUILDING	249.356	253.186	266.650	309.249	338.580	359.418	375.442
<i>(Yr/yr % change)</i>	<i>-27.2%</i>	<i>1.5%</i>	<i>5.3%</i>	<i>16.0%</i>	<i>9.5%</i>	<i>6.2%</i>	<i>4.5%</i>
Multi-Family	82.135	95.511	113.269	125.507	132.012	134.002	142.007
Single-Family	219.284	257.584	279.722	293.271	310.441	333.148	353.527
RESIDENTIAL	301.419	353.096	392.991	418.778	442.453	467.149	495.533
<i>(Yr/yr % change)</i>	<i>1.2%</i>	<i>17.1%</i>	<i>11.3%</i>	<i>6.6%</i>	<i>5.7%</i>	<i>5.6%</i>	<i>6.1%</i>
GRAND TOTAL	705.474	762.373	845.484	938.872	1013.312	1,073.443	1,129.223
<i>(Yr/yr % change)</i>	<i>-15.0%</i>	<i>8.1%</i>	<i>10.9%</i>	<i>11.0%</i>	<i>7.9%</i>	<i>5.9%</i>	<i>5.2%</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	\$1,814	6.2%	15.9%	10.2%	8.1%	5.7%
Alabama - AL	\$12,596	1.0%	19.5%	9.3%	6.7%	4.9%
Arkansas - AR	\$6,493	30.4%	6.0%	8.3%	6.8%	5.1%
Arizona - AZ	\$30,667	-23.5%	19.5%	11.3%	7.8%	7.2%
California - CA*	\$63,365	8.1%	21.1%	7.8%	4.5%	6.1%
Colorado - CO	\$19,216	17.6%	11.2%	8.6%	7.5%	5.9%
Connecticut - CT	\$4,122	9.4%	20.1%	28.8%	6.2%	4.1%
District Of Columbia - DC	\$2,333	24.6%	16.6%	2.1%	-1.6%	3.1%
Delaware - DE	\$2,762	1.7%	0.9%	5.2%	5.7%	4.2%
Florida - FL*	\$61,595	17.3%	8.7%	7.2%	7.3%	6.2%
Georgia - GA	\$25,290	12.2%	19.3%	8.6%	6.5%	5.1%
Hawaii - HI	\$3,874	-25.8%	36.6%	4.2%	6.6%	5.6%
Iowa - IA	\$7,557	-10.4%	17.5%	9.8%	6.3%	4.6%
Idaho - ID	\$5,306	39.6%	7.0%	6.6%	6.7%	3.8%
Illinois - IL	\$18,035	16.2%	17.1%	8.6%	5.8%	4.2%
Indiana - IN	\$15,239	17.4%	0.2%	8.4%	6.0%	3.9%
Kansas - KS	\$5,834	14.8%	5.1%	8.4%	6.4%	4.9%
Kentucky - KY	\$8,314	5.2%	8.9%	9.9%	6.8%	4.8%
Louisiana - LA	\$12,123	16.7%	17.6%	7.6%	5.8%	4.0%
Massachusetts - MA	\$15,616	-4.3%	30.7%	6.5%	2.5%	4.2%
Maryland - MD	\$10,456	4.0%	-8.6%	8.2%	5.6%	5.5%
Maine - ME	\$4,345	-24.8%	12.0%	5.4%	7.7%	3.9%
Michigan - MI	\$13,656	24.2%	8.3%	8.2%	6.1%	4.4%
Minnesota - MN	\$17,258	-8.1%	20.3%	8.5%	6.0%	4.8%
Missouri - MO	\$14,074	11.6%	-1.9%	9.3%	6.4%	4.3%
Mississippi - MS	\$5,015	-10.3%	11.7%	9.0%	6.1%	4.2%
Montana - MT	\$2,228	12.1%	8.7%	9.2%	9.9%	5.7%
North Carolina - NC	\$34,032	10.9%	-1.3%	6.1%	4.4%	5.7%
North Dakota - ND	\$2,638	28.9%	9.2%	8.8%	6.4%	5.0%
Nebraska - NE	\$5,496	-8.7%	17.4%	8.9%	6.5%	4.7%
New Hampshire - NH	\$2,579	-2.5%	22.9%	10.0%	9.2%	5.2%
New Jersey - NJ	\$11,758	22.5%	23.4%	-4.8%	6.6%	4.0%
New Mexico - NM	\$3,170	14.6%	6.4%	8.6%	6.2%	4.3%
Nevada - NV	\$8,916	4.0%	1.1%	7.8%	7.3%	6.4%
New York - NY*	\$32,165	17.6%	18.6%	4.4%	-5.2%	3.0%
Ohio - OH	\$21,962	19.2%	-1.2%	8.2%	5.5%	4.1%
Oklahoma - OK	\$8,851	16.7%	7.7%	10.0%	8.4%	5.2%
Oregon - OR	\$9,967	-2.2%	19.2%	8.7%	7.8%	6.2%
Pennsylvania - PA	\$21,214	12.6%	9.6%	7.8%	6.7%	4.9%
Rhode Island - RI	\$1,216	12.8%	7.7%	8.2%	6.3%	4.0%
South Carolina - SC	\$15,955	0.9%	3.3%	9.3%	8.4%	5.5%
South Dakota - SD	\$2,993	33.6%	-18.0%	8.2%	6.2%	5.1%
Tennessee - TN	\$22,359	2.0%	4.4%	8.3%	6.8%	5.5%
Texas - TX*	\$102,884	19.6%	7.6%	8.3%	7.5%	5.5%
Utah - UT	\$12,498	24.8%	15.7%	8.7%	7.7%	6.0%
Virginia - VA	\$18,877	19.3%	8.6%	8.8%	6.3%	4.7%
Vermont - VT	\$792	-11.5%	25.6%	8.9%	8.4%	5.3%
Washington - WA	\$16,785	14.7%	15.5%	8.3%	7.7%	6.3%
Wisconsin - WI	\$12,737	1.7%	10.3%	10.6%	5.5%	4.0%
West Virginia - WV	\$1,891	21.8%	18.9%	10.3%	6.2%	3.9%
Wyoming - WY	\$1,458	55.8%	0.5%	9.2%	7.7%	5.7%
United States	\$762,373	10.9%	11.0%	7.9%	5.9%	5.2%

*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	8.432	10.689	9.204	13.303	15.255	13.981	14.128
	Non-res Building	14.357	13.452	15.230	18.105	17.537	16.255	16.790
	Engineering/Civil	5.280	8.024	13.388	13.450	14.030	14.128	14.761
	Total	28.069	32.165	37.822	44.858	46.822	44.364	45.679
	<i>(Yr vs previous yr % Change)</i>	-29.2%	14.6%	17.6%	18.6%	4.4%	-5.2%	3.0%
Florida	Residential	29.171	36.686	44.348	45.842	47.866	51.251	54.969
	Non-res Building	15.329	16.290	16.721	18.997	21.257	23.122	24.296
	Engineering/Civil	8.806	8.619	11.173	13.663	15.037	15.955	16.623
	Total	53.306	61.595	72.242	78.503	84.159	90.328	95.888
	<i>(Yr vs previous yr % Change)</i>	-14.3%	15.5%	17.3%	8.7%	7.2%	7.3%	6.2%
Texas	Residential	45.589	54.417	57.971	60.818	63.009	67.522	72.018
	Non-res Building	32.705	28.460	39.673	44.944	50.110	54.281	56.698
	Engineering/Civil	19.360	20.007	25.376	26.571	30.216	32.343	33.903
	Total	97.653	102.884	123.020	132.333	143.335	154.146	162.619
	<i>(Yr vs previous yr % Change)</i>	-25.7%	5.4%	19.6%	7.6%	8.3%	7.5%	5.5%
California	Residential	23.581	23.544	27.959	32.482	34.813	35.918	38.180
	Non-res Building	21.696	25.407	24.823	30.693	32.390	33.637	35.828
	Engineering/Civil	18.305	14.413	15.712	19.785	22.254	23.890	25.111
	Total	63.582	63.365	68.493	82.960	89.457	93.446	99.119
	<i>(Yr vs previous yr % Change)</i>	-3.4%	-0.3%	8.1%	21.1%	7.8%	4.5%	6.1%

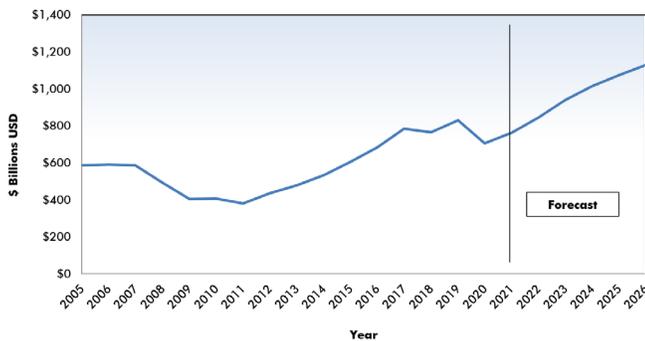
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

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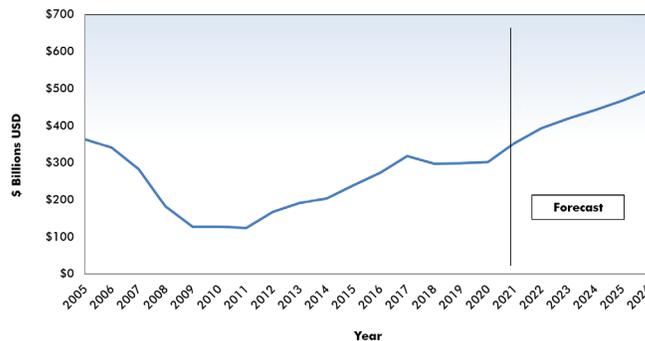
Link to article here: <https://bit.ly/3w45Yow>

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



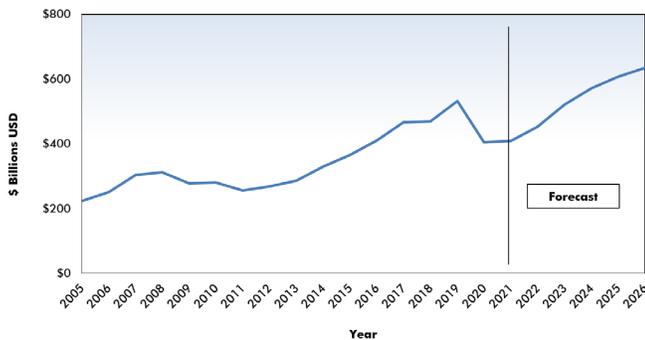
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



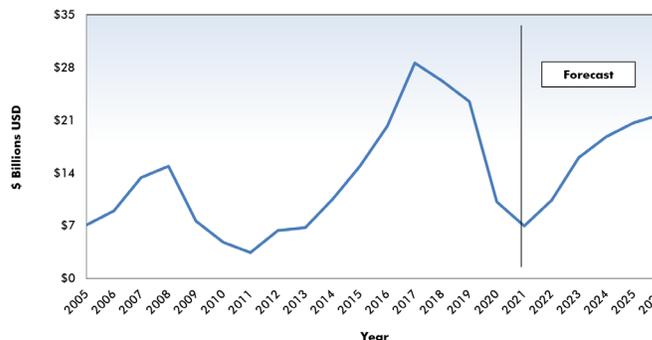
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



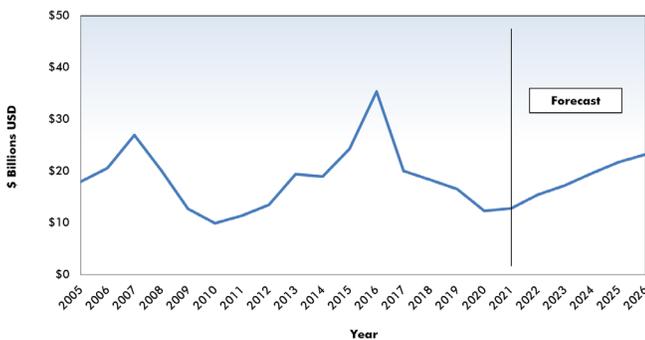
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



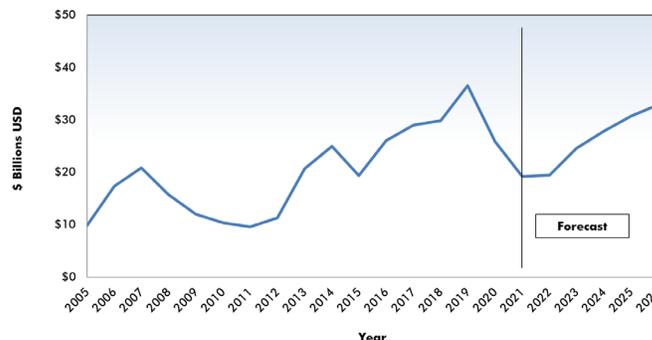
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



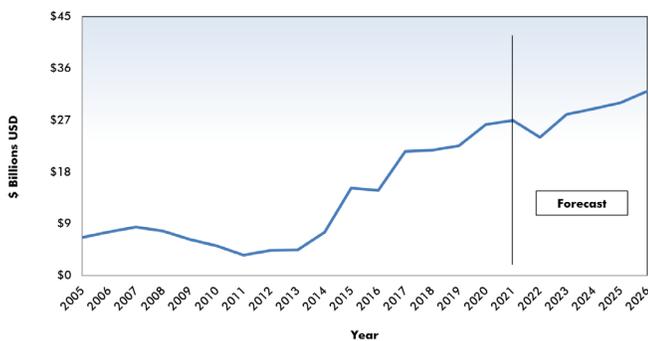
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



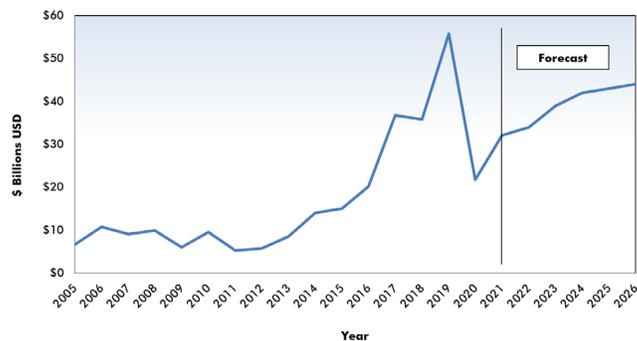
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



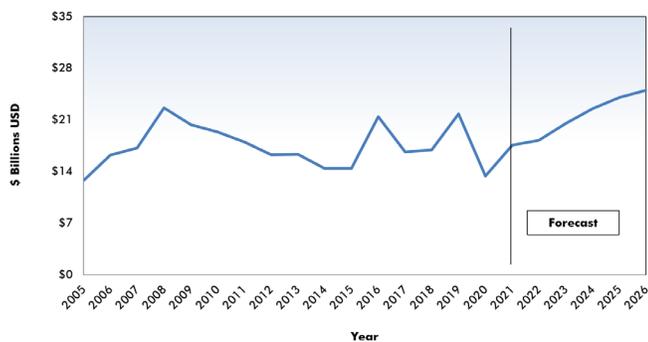
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



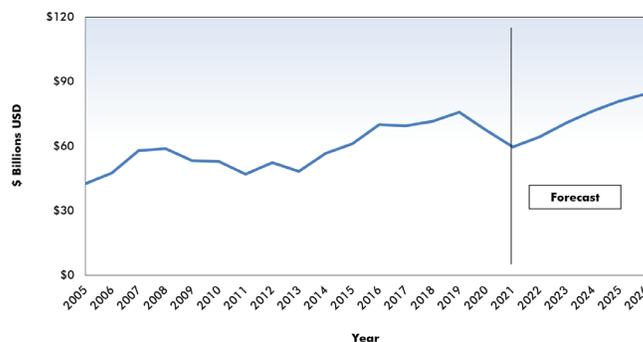
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



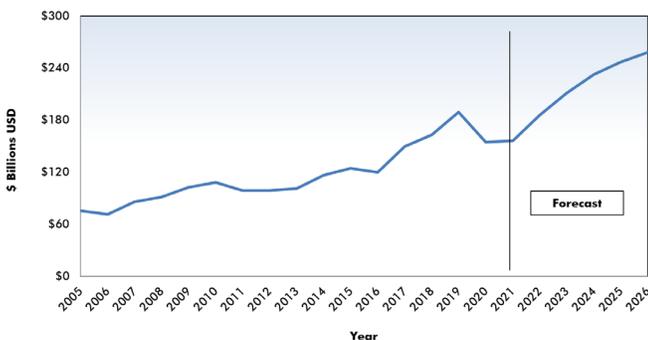
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



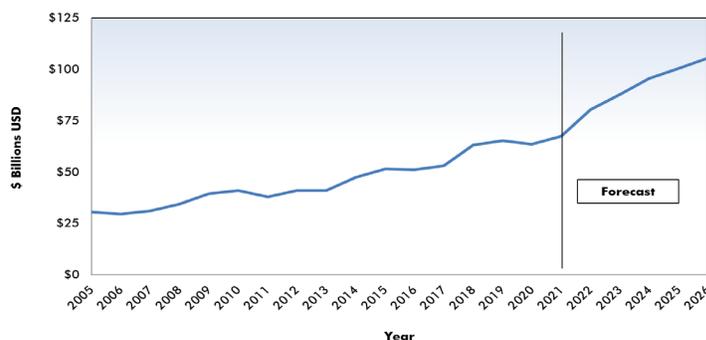
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



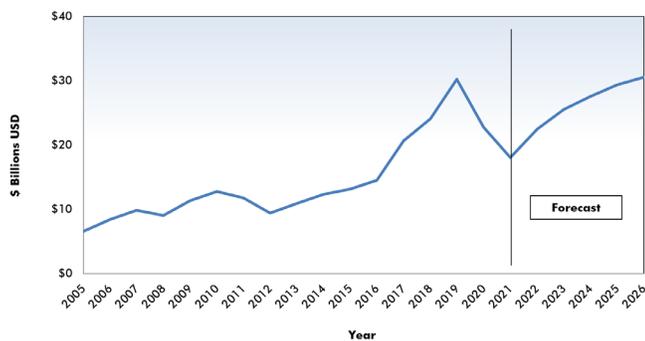
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



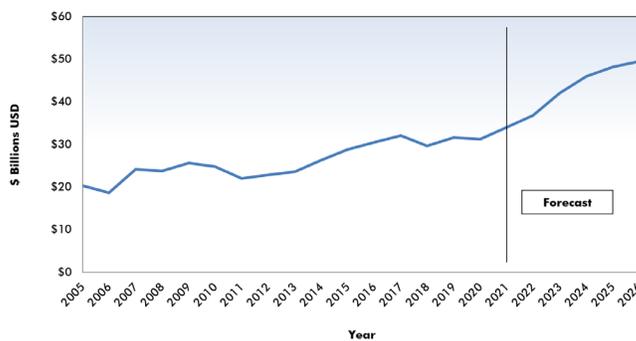
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



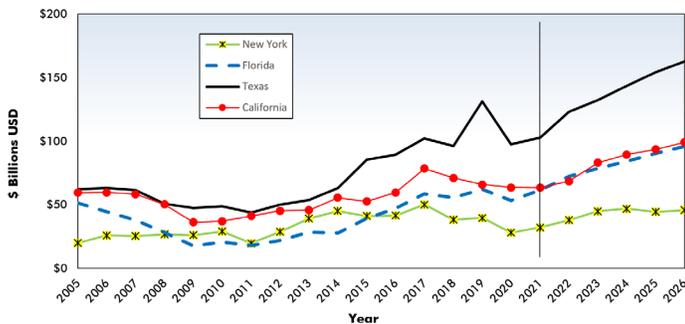
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



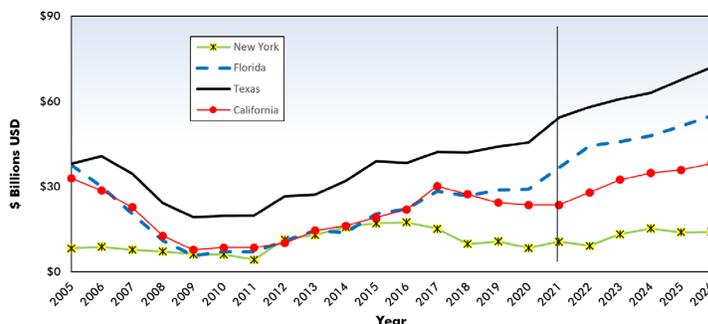
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



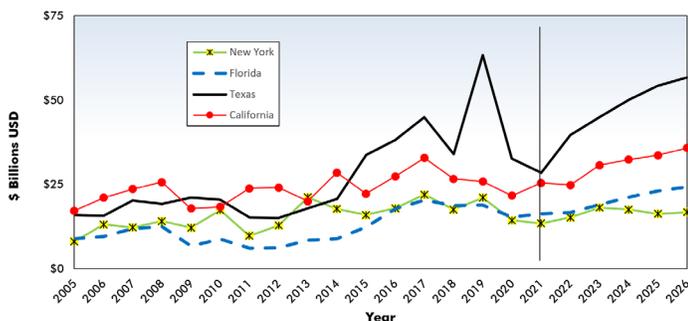
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



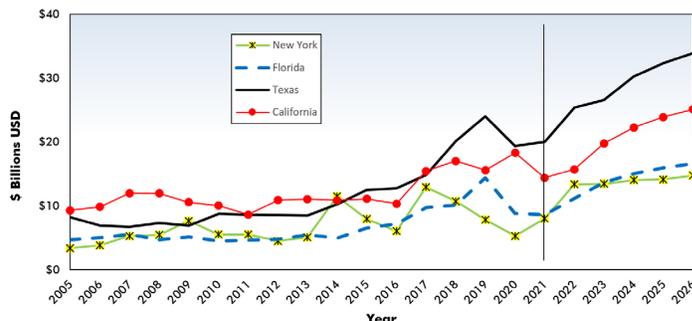
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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	17.593	19.528	20.197	21.003	21.754
Multi-family	13.738	16.474	16.934	18.474	20.040	21.129	21.947
TOTAL RESIDENTIAL	27.039	34.342	34.527	38.002	40.237	42.132	43.701
(Yr/yr % change)	-12.6%	27.0%	0.5%	10.1%	5.9%	4.7%	3.7%
Hotels/Motels	0.385	0.143	0.171	0.410	0.551	0.627	0.700
Private Offices	2.122	1.032	1.078	1.520	1.944	2.237	2.394
Governmental Offices	1.505	1.149	1.127	2.285	1.891	1.960	2.020
Shopping/Retail	0.362	0.275	0.498	0.820	0.987	1.087	1.155
Retail Miscellaneous	0.099	0.063	0.195	0.223	0.245	0.262	0.279
Parking Garages	0.144	0.114	0.164	0.189	0.217	0.235	0.259
Amusement	1.113	2.481	2.396	2.590	2.722	2.880	3.023
Warehouses	2.007	1.790	1.905	2.089	2.245	2.345	2.445
TOTAL COMMERCIAL	7.738	7.047	7.533	10.127	10.801	11.634	12.276
(Yr/yr % change)	-47.3%	-8.9%	6.9%	34.4%	6.7%	7.7%	5.5%
TOTAL INDUSTRIAL (manufacturing)	2.403	11.063	8.290	10.239	11.273	12.264	13.194
(Yr/yr % change)	-30.6%	360.3%	-25.1%	23.5%	10.1%	8.8%	7.6%
Religious	0.042	0.094	0.075	0.091	0.098	0.101	0.104
Hospitals/Clinics	4.067	7.651	6.321	7.369	7.998	8.489	8.951
MED misc	0.153	0.104	0.287	0.344	0.393	0.453	0.498
Transportation Terminals*	5.566	0.305	2.174	2.832	3.111	3.418	3.712
Police/Fire	1.048	1.428	1.582	1.704	1.843	1.969	2.045
Educational Facilities	5.351	6.839	5.953	6.579	6.813	7.081	7.357
TOTAL INSTITUTIONAL	16.227	16.420	16.392	18.919	20.256	21.510	22.667
(Yr/yr % change)	37.1%	1.2%	-0.2%	15.4%	7.1%	6.2%	5.4%
TOTAL NON-RES BUILDING	26.368	34.530	32.216	39.285	42.330	45.408	48.137
(Yr/yr % change)	-12.1%	31.0%	-6.7%	21.9%	7.8%	7.3%	6.0%
Bridges	3.677	2.317	2.655	3.693	3.884	3.989	4.068
Dams/Canal/Marine	0.691	0.538	0.636	0.773	0.875	0.921	0.964
Water & Sewage Treatment	3.084	4.789	4.691	4.937	5.205	5.525	5.921
Roads	10.297	10.695	10.228	12.138	13.234	13.916	14.693
Power Infrastructure	2.893	4.317	4.222	6.566	7.553	8.087	8.522
All Other Civil (Oil & Gas etc.)	12.373	5.753	13.438	18.003	19.805	20.651	21.667
TOTAL ENGINEERING	33.015	28.409	35.871	46.110	50.557	53.089	55.836
(Yr/yr % change)	-12.4%	-13.9%	26.3%	28.5%	9.6%	5.0%	5.2%
TOTAL NON-RESIDENTIAL	59.383	62.940	68.087	85.395	92.887	98.497	103.972
(Yr/yr % change)	-12.2%	6.0%	8.2%	25.4%	8.8%	6.0%	5.6%
GRAND TOTAL	86.422	97.282	102.614	123.397	133.124	140.629	147.674
(Yr/yr % change)	-12.4%	12.6%	5.5%	20.3%	7.9%	5.6%	5.0%

* 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	33.015	28.409	35.871	46.110	50.557	53.089	55.836
NON-RESIDENTIAL BUILDING	26.368	34.530	32.216	39.285	42.330	45.408	48.137
RESIDENTIAL	27.039	34.342	34.527	38.002	40.237	42.132	43.701
GRAND TOTAL	86.422	97.282	102.614	123.397	133.124	140.629	147.674
Verticals							
All Other Civil	12.373	5.753	13.438	18.003	19.805	20.651	21.667
Bridges	3.677	2.317	2.655	3.693	3.884	3.989	4.068
Dams / Canals / Marine Work	0.691	0.538	0.636	0.773	0.875	0.921	0.964
Power Infrastructure	2.893	4.317	4.222	6.566	7.553	8.087	8.522
Roads	10.297	10.695	10.228	12.138	13.234	13.916	14.693
Water and Sewage Treatment	3.084	4.789	4.691	4.937	5.205	5.525	5.921
CIVIL	33.015	28.409	35.871	46.110	50.557	53.089	55.836
(Yr/yr % change)	-12.4%	-13.9%	26.3%	28.5%	9.6%	5.0%	5.2%
Offices (private)	2.122	1.032	1.078	1.520	1.944	2.237	2.394
Parking Garages	0.144	0.114	0.164	0.189	0.217	0.235	0.259
Transportation Terminals	5.566	0.305	2.174	2.832	3.111	3.418	3.712
Commercial	7.832	1.451	3.416	4.541	5.273	5.890	6.365
(Yr/yr % change)	37.7%	-81.5%	135.4%	32.9%	16.1%	11.7%	8.1%
Amusement	1.113	2.481	2.396	2.590	2.722	2.880	3.023
Religious	0.042	0.094	0.075	0.091	0.098	0.101	0.104
Community	1.155	2.574	2.471	2.682	2.820	2.981	3.128
(Yr/yr % change)	-52.6%	122.9%	-4.0%	8.5%	5.2%	5.7%	4.9%
Educational	5.351	6.839	5.953	6.579	6.813	7.081	7.357
(Yr/yr % change)	1.3%	27.8%	-13.0%	10.5%	3.6%	3.9%	3.9%
Fire and Police Stations	1.048	1.428	1.582	1.704	1.843	1.969	2.045
Government Offices	1.505	1.149	1.127	2.285	1.891	1.960	2.020
Government	2.553	2.577	2.709	3.989	3.734	3.929	4.065
(Yr/yr % change)	-40.0%	0.9%	5.1%	47.3%	-6.4%	5.2%	3.5%
Manufacturing	2.403	11.063	8.290	10.239	11.273	12.264	13.194
Warehouses	2.007	1.790	1.905	2.089	2.245	2.345	2.445
Industrial	4.411	12.853	10.194	12.328	13.518	14.608	15.639
(Yr/yr % change)	-12.3%	191.4%	-20.7%	20.9%	9.7%	8.1%	7.1%
Hospitals / Clinics	4.067	7.651	6.321	7.369	7.998	8.489	8.951
Medical Misc.	0.153	0.104	0.287	0.344	0.393	0.453	0.498
Medical	4.220	7.754	6.608	7.713	8.391	8.941	9.449
(Yr/yr % change)	6.3%	83.8%	-14.8%	16.7%	8.8%	6.6%	5.7%
Hotels	0.385	0.143	0.171	0.410	0.551	0.627	0.700
Retail Misc.	0.099	0.063	0.195	0.223	0.245	0.262	0.279
Shopping	0.362	0.275	0.498	0.820	0.987	1.087	1.155
Retail	0.846	0.482	0.864	1.454	1.783	1.977	2.134
(Yr/yr % change)	-74.5%	-43.0%	79.2%	68.2%	22.6%	10.9%	7.9%
NON-RESIDENTIAL BUILDING	26.368	34.530	32.216	39.285	42.330	45.408	48.137
(Yr/yr % change)	-12.1%	31.0%	-6.7%	21.9%	7.8%	7.3%	6.0%
Multi-Family	13.738	16.474	16.934	18.474	20.040	21.129	21.947
Single-Family	13.301	17.868	17.593	19.528	20.197	21.003	21.754
RESIDENTIAL	27.039	34.342	34.527	38.002	40.237	42.132	43.701
(Yr/yr % change)	-12.6%	27.0%	0.5%	10.1%	5.9%	4.7%	3.7%
TOTAL NON-RESIDENTIAL	59.383	62.940	68.087	85.395	92.887	98.497	103.972
(Yr/yr % change)	-12.2%	6.0%	8.2%	25.4%	8.8%	6.0%	5.6%
GRAND TOTAL	86.422	97.282	102.614	123.397	133.124	140.629	147.674
(Yr/yr % change)	-12.4%	12.6%	5.5%	20.3%	7.9%	5.6%	5.0%

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	\$3,982	37.7%	23.5%	7.3%	3.9%	4.1%
Quebec	\$20,767	-7.5%	25.0%	7.6%	6.9%	4.8%
Ontario	\$30,142	9.0%	11.7%	7.4%	4.7%	5.0%
Manitoba	\$2,502	17.3%	10.8%	3.4%	6.8%	5.2%
Saskatchewan	\$10,251	-75.0%	27.0%	7.1%	5.5%	5.2%
Alberta	\$15,588	25.4%	23.4%	8.0%	6.3%	5.8%
British Columbia	\$14,050	42.5%	26.3%	9.5%	5.4%	4.8%
Canada	\$97,282	5.5%	20.3%	7.9%	5.6%	5.0%

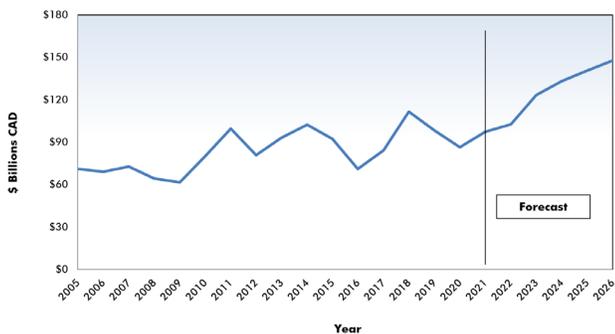
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

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	6.690	6.818	7.652	7.888	8.271	8.556
	Non-res Building	5.246	8.547	6.517	8.351	9.195	10.089	10.693
	Engineering/Civil	7.380	5.530	5.868	8.008	8.742	9.258	9.696
	Total	16.825	20.767	19.202	24.011	25.825	27.618	28.945
	(Yr vs previous yr % Change)	-20.4%	23.4%	-7.5%	25.0%	7.6%	6.9%	4.8%
Ontario	Residential	13.143	15.138	14.789	15.337	16.348	17.071	17.776
	Non-res Building	14.031	6.933	10.601	11.499	12.177	12.787	13.517
	Engineering/Civil	7.342	8.071	7.455	9.854	10.894	11.418	12.032
	Total	34.516	30.142	32.844	36.691	39.419	41.276	43.326
	(Yr vs previous yr % Change)	9.6%	-12.7%	9.0%	11.7%	7.4%	4.7%	5.0%
Alberta	Residential	3.158	4.638	4.139	5.000	5.307	5.578	5.797
	Non-res Building	1.998	2.342	4.186	5.977	6.363	6.938	7.461
	Engineering/Civil	7.578	8.608	11.230	13.151	14.393	15.194	16.046
	Total	12.733	15.588	19.555	24.128	26.063	27.710	29.304
	(Yr vs previous yr % Change)	-29.6%	22.4%	25.4%	23.4%	8.0%	6.3%	5.8%
British Columbia	Residential	4.772	5.291	6.966	7.592	8.116	8.503	8.772
	Non-res Building	2.761	6.930	6.575	7.957	8.751	9.428	9.993
	Engineering/Civil	7.572	1.829	6.486	9.737	10.831	11.267	11.822
	Total	15.106	14.050	20.027	25.286	27.698	29.197	30.587
	(Yr vs previous yr % Change)	-21.4%	-7.0%	42.5%	26.3%	9.5%	5.4%	4.8%

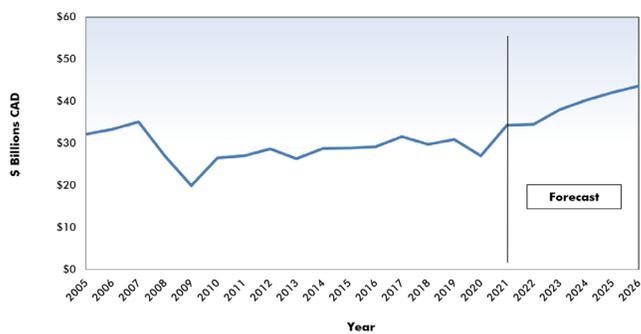
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Graph 19: Canadian Grand Total Construction Starts — ConstructConnect



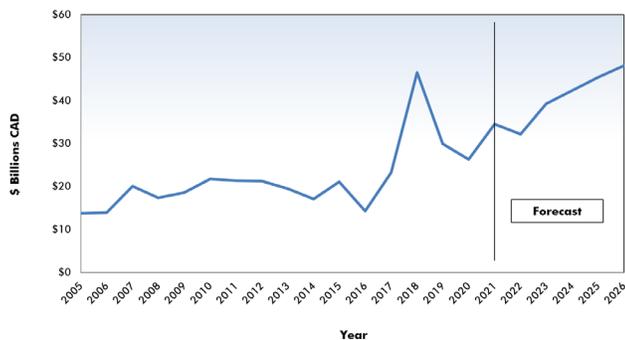
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 20: Canadian Residential Construction Starts — ConstructConnect



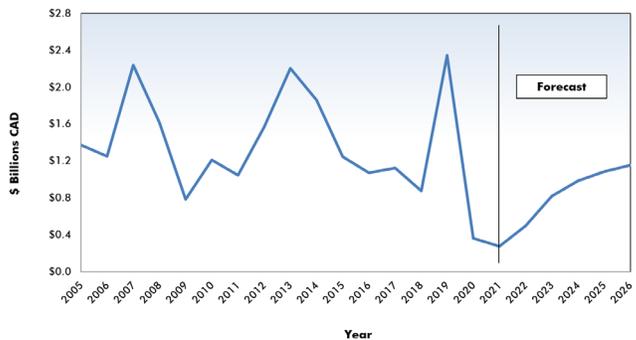
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 21: Canadian Non-Residential Building Starts — ConstructConnect



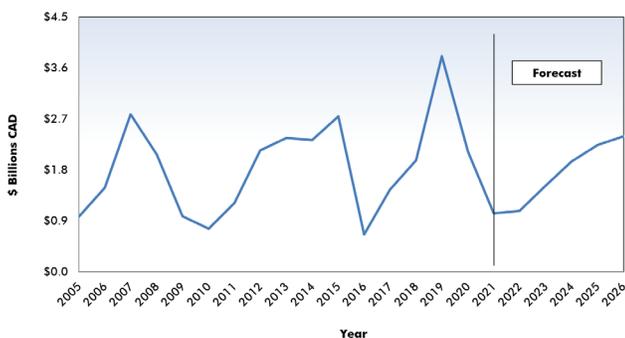
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 22: Canadian Shopping/Retail Construction Starts — ConstructConnect



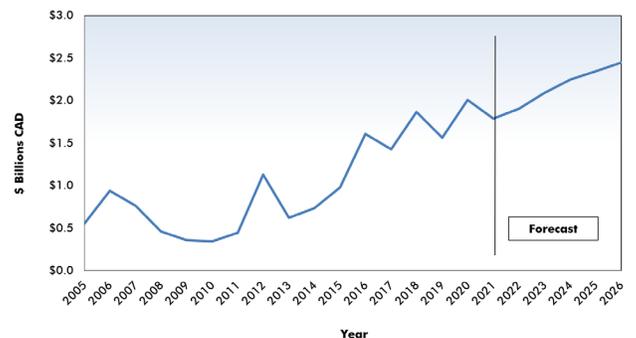
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 23: Canadian Private Offices Construction Starts — ConstructConnect



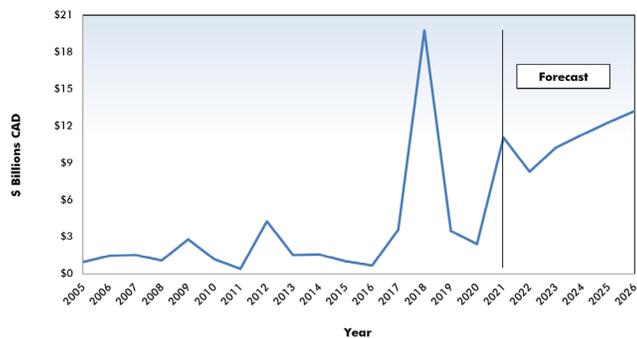
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 24: Canadian Warehouse Construction Starts — ConstructConnect



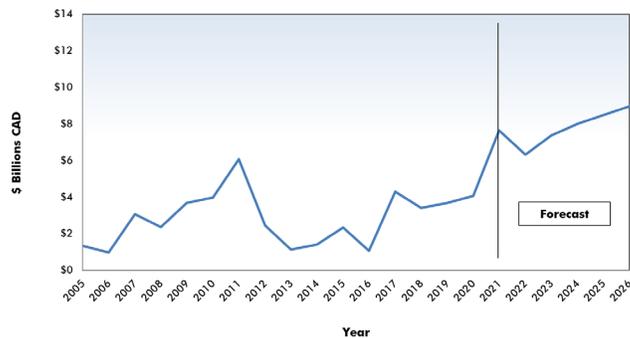
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 25: Canadian Industrial/Manufacturing Construction Starts — ConstructConnect



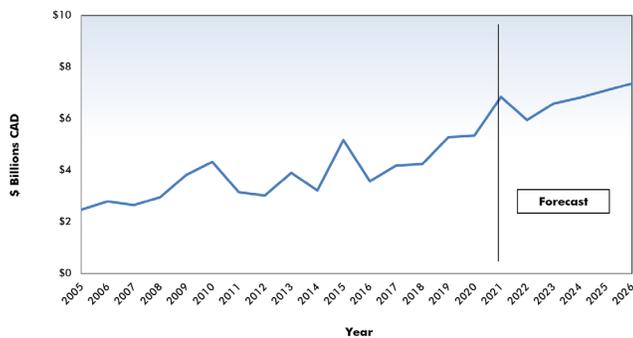
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 26: Canadian Hospital/Clinic Construction Starts — ConstructConnect



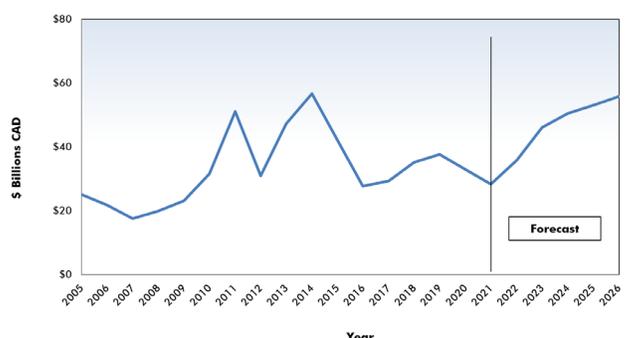
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 27: Canadian Education Construction Starts — ConstructConnect



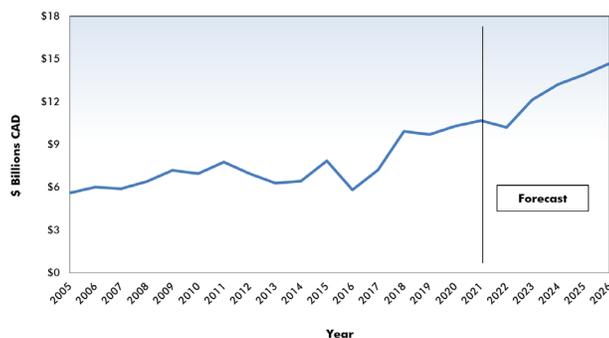
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 28: Canadian Engineering Construction Starts — ConstructConnect



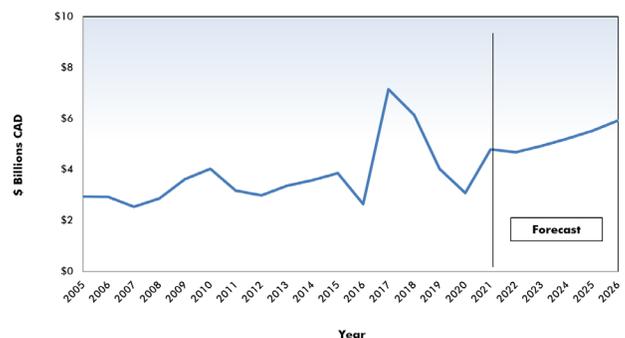
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 29: Canadian Roadwork Construction Starts — ConstructConnect



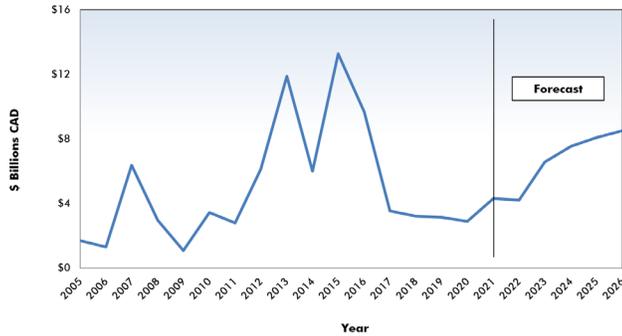
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 30: Canadian Water and Sewage Construction Starts — ConstructConnect



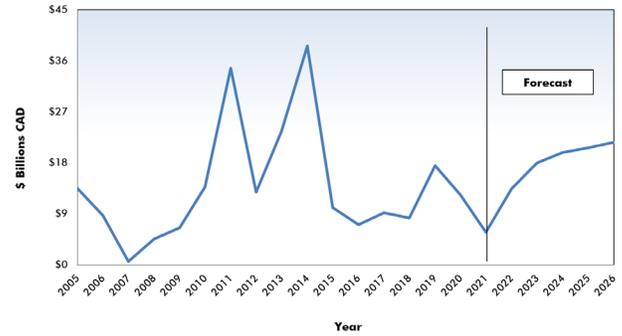
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 31: Canadian Power Infrastructure Construction Starts — ConstructConnect



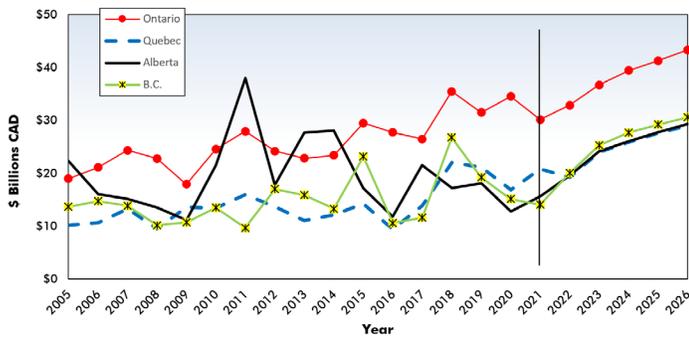
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



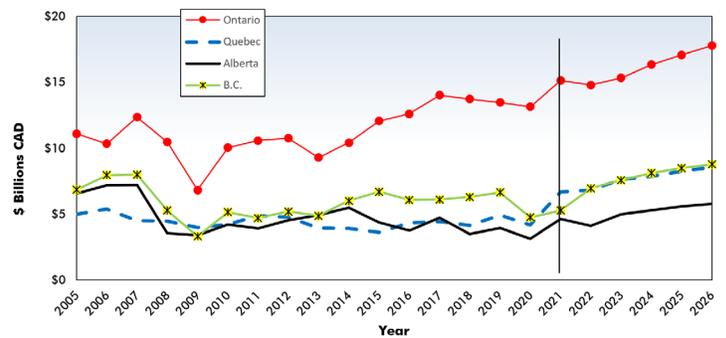
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



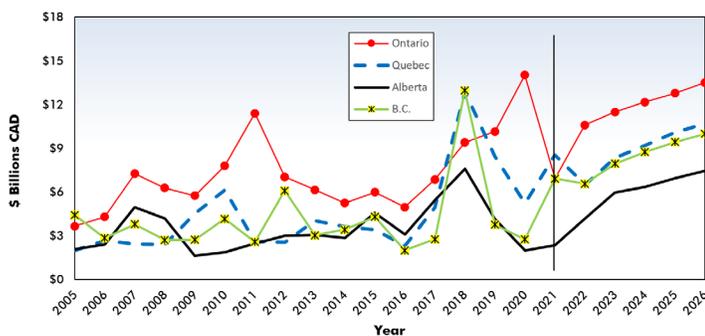
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



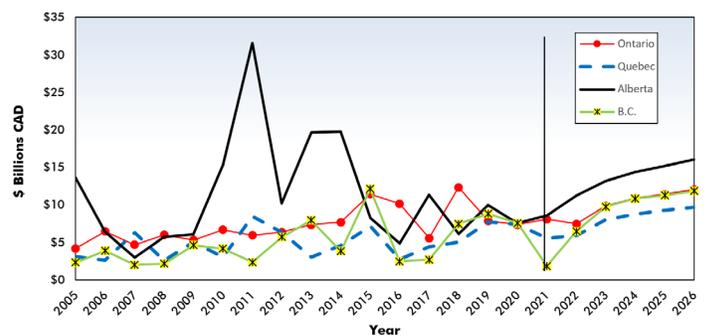
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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	1,813.1	2,129.8	2,312.8	2,424.9	2,566.8	2,754.6	2,923.1
Multi-family	475.0	541.6	540.0	650.0	730.0	745.0	830.0
TOTAL RESIDENTIAL	2,288.1	2,671.4	2,852.8	3,074.9	3,296.9	3,499.6	3,753.1
<i>(Yr/yr % change)</i>	<i>4.1%</i>	<i>16.8%</i>	<i>6.8%</i>	<i>7.8%</i>	<i>7.2%</i>	<i>6.1%</i>	<i>7.2%</i>
Hotels/Motels	45.1	29.9	35.0	62.1	78.5	87.7	92.8
Shopping/Retail	51.0	48.5	51.5	62.4	76.0	88.0	100.0
Parking Garages	17.1	15.0	12.8	17.3	21.2	23.6	25.0
Amusement	21.6	23.1	18.7	22.6	28.1	31.0	32.5
Private Offices	76.4	64.8	59.6	79.0	92.8	103.5	111.0
Governmental Offices	13.3	16.5	14.2	16.1	18.7	20.1	20.7
Laboratories (Schools & Industrial)	3.1	5.0	5.4	6.0	6.6	6.9	7.2
Warehouses	232.1	254.4	204.0	255.0	275.0	290.0	303.0
Sports Stadium/Convention Center	12.7	12.2	8.9	9.5	13.9	16.3	17.3
Transportation Terminals	4.9	8.1	6.0	9.0	11.0	12.5	14.0
TOTAL COMMERCIAL	477.1	477.4	416.1	539.1	621.7	679.5	723.5
<i>(Yr/yr % change)</i>	<i>-20.5%</i>	<i>0.1%</i>	<i>-12.8%</i>	<i>29.6%</i>	<i>15.3%</i>	<i>9.3%</i>	<i>6.5%</i>
TOTAL INDUSTRIAL (manufacturing)	72.1	81.1	62.4	78.0	90.0	100.0	105.0
<i>(Yr/yr % change)</i>	<i>-32.3%</i>	<i>12.6%</i>	<i>-23.0%</i>	<i>25.0%</i>	<i>15.3%</i>	<i>11.1%</i>	<i>5.0%</i>
Religious	3.8	2.9	3.1	3.8	4.2	4.4	4.5
Hospitals/Clinics	17.1	22.0	18.6	25.0	34.0	41.0	48.0
Nursing Homes/Assisted Living	32.4	23.3	21.4	26.7	32.9	36.0	38.4
Libraries/Museums	3.4	6.5	5.0	4.3	5.5	6.1	6.4
Courthouse	3.0	4.4	3.2	1.6	3.3	4.7	5.3
Police/Fire	8.3	7.5	6.4	7.5	8.6	9.1	9.6
Prisons	2.6	1.8	0.9	2.0	2.0	1.8	1.8
Military	22.5	21.1	17.6	19.0	25.7	27.6	28.4
Educational Facilities	148.7	125.2	105.9	128.5	154.4	168.9	177.0
MED misc	15.7	14.8	14.7	18.9	23.4	25.5	26.7
TOTAL INSTITUTIONAL	257.4	229.2	196.8	237.3	293.9	325.0	346.0
<i>(Yr/yr % change)</i>	<i>-12.3%</i>	<i>-10.9%</i>	<i>-14.1%</i>	<i>20.6%</i>	<i>23.9%</i>	<i>10.6%</i>	<i>6.4%</i>
Miscellaneous Non-Res Building	20.4	21.1	20.4	22.2	23.6	24.7	25.9
TOTAL NON-RES BLDG	827.0	808.8	695.7	876.7	1,029.2	1,129.2	1,200.4
<i>(Yr/yr % change)</i>	<i>-19.4%</i>	<i>-2.2%</i>	<i>-14.0%</i>	<i>26.0%</i>	<i>17.4%</i>	<i>9.7%</i>	<i>6.3%</i>
RESIDENTIAL + NON-RES BLDG	3,115.1	3,480.3	3,548.5	3,951.6	4,326.1	4,628.8	4,953.4
<i>(Yr/yr % change)</i>	<i>-3.4%</i>	<i>11.7%</i>	<i>2.0%</i>	<i>11.4%</i>	<i>9.5%</i>	<i>7.0%</i>	<i>7.0%</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	808.8	695.7	876.7	1,029.2	1,129.2	1,200.4
RESIDENTIAL	2,288.1	2,671.4	2,852.8	3,074.9	3,296.9	3,499.6	3,753.1
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,115.1	3,480.3	3,548.5	3,951.6	4,326.1	4,628.8	4,953.4
Verticals							
Offices (private)	76.4	64.8	59.6	79.0	92.8	103.5	111.0
Parking Garages	17.1	15.0	12.8	17.3	21.2	23.6	25.0
Transportation Terminals	4.9	8.1	6.0	9.0	11.0	12.5	14.0
Commercial	98.3	87.9	78.4	105.3	124.9	139.6	150.0
(Yr/yr % change)	-35.2%	-10.6%	-10.8%	34.3%	18.6%	11.8%	7.4%
Amusement	21.6	23.1	18.7	22.6	28.1	31.0	32.5
Libraries / Museums	3.4	6.5	5.0	4.3	5.5	6.1	6.4
Religious	3.8	2.9	3.1	3.8	4.2	4.4	4.5
Sports Arenas / Convention Centers	12.7	12.2	8.9	9.5	13.9	16.3	17.3
Community	41.5	44.6	35.7	40.3	51.7	57.7	60.7
(Yr/yr % change)	-22.0%	7.5%	-20.0%	12.8%	28.5%	11.5%	5.2%
College / University	32.8	25.1	23.5	28.8	32.9	35.2	36.4
Elementary / Pre School	48.1	36.0	31.2	38.3	46.5	51.3	54.1
Jr / Sr High School	62.3	58.4	46.1	55.7	68.7	75.8	79.7
Special / Vocational	5.4	5.8	5.0	5.8	6.3	6.6	6.7
Educational	148.7	125.2	105.9	128.5	154.4	168.9	177.0
(Yr/yr % change)	-11.5%	-15.8%	-15.4%	21.4%	20.1%	9.4%	4.8%
Courthouses	3.0	4.4	3.2	1.6	3.3	4.7	5.3
Fire and Police Stations	8.3	7.5	6.4	7.5	8.6	9.1	9.6
Government Offices	13.3	16.5	14.2	16.1	18.7	20.1	20.7
Prisons	2.6	1.8	0.9	2.0	2.0	1.8	1.8
Government	27.2	30.1	24.7	27.2	32.6	35.7	37.4
(Yr/yr % change)	-5.5%	10.9%	-17.9%	10.1%	19.9%	9.3%	4.8%
Industrial Labs / Labs / School Labs	3.1	5.0	5.4	6.0	6.6	6.9	7.2
Manufacturing	72.1	81.1	62.4	78.0	90.0	100.0	105.0
Warehouses	232.1	254.4	204.0	255.0	275.0	290.0	303.0
Industrial	307.2	340.5	271.8	339.0	371.6	396.9	415.2
(Yr/yr % change)	-3.2%	10.8%	-20.2%	24.7%	9.6%	6.8%	4.6%
Hospitals / Clinics	17.1	22.0	18.6	25.0	34.0	41.0	48.0
Medical Misc.	15.7	14.8	14.7	18.9	23.4	25.5	26.7
Nursing Homes	32.4	23.3	21.4	26.7	32.9	36.0	38.4
Medical	65.1	60.0	54.7	70.6	90.2	102.4	113.0
(Yr/yr % change)	-30.5%	-7.9%	-8.8%	29.1%	27.7%	13.6%	10.3%
Military	22.5	21.1	17.6	19.0	25.7	27.6	28.4
(Yr/yr % change)	92.9%	-6.5%	-16.5%	7.8%	35.6%	7.5%	2.8%
Hotels	45.1	29.9	35.0	62.1	78.5	87.7	92.8
Retail Misc.	20.4	21.1	20.4	22.2	23.6	24.7	25.9
Shopping	51.0	48.5	51.5	62.4	76.0	88.0	100.0
Retail	116.4	99.5	106.9	146.8	178.1	200.4	218.7
(Yr/yr % change)	-42.3%	-14.5%	7.5%	37.3%	21.3%	12.5%	9.1%
NON-RESIDENTIAL BUILDING	827.0	808.8	695.7	876.7	1,029.2	1,129.2	1,200.4
(Yr/yr % change)	-19.4%	-2.2%	-14.0%	26.0%	17.4%	9.7%	6.3%
Multi-Family	475.0	541.6	540.0	650.0	730.0	745.0	830.0
Single-Family	1,813.1	2,129.8	2,312.8	2,424.9	2,566.8	2,754.6	2,923.1
RESIDENTIAL	2,288.1	2,671.4	2,852.8	3,074.9	3,296.9	3,499.6	3,753.1
(Yr/yr % change)	4.1%	16.8%	6.8%	7.8%	7.2%	6.1%	7.2%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,115.1	3,480.3	3,548.5	3,951.6	4,326.1	4,628.8	4,953.4
(Yr/yr % change)	-3.4%	11.7%	2.0%	11.4%	9.5%	7.0%	7.0%

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	146.6	166.0	173.5	180.9	187.5
Multi-family	67.7	75.5	74.7	84.6	94.4	101.7	107.8
TOTAL RESIDENTIAL	182.5	229.6	221.3	250.6	267.9	282.6	295.3
<i>(Yr/yr % change)</i>	<i>-9.0%</i>	<i>25.8%</i>	<i>-3.6%</i>	<i>13.2%</i>	<i>6.9%</i>	<i>5.5%</i>	<i>4.5%</i>
Hotels/Motels	0.9	0.7	0.7	1.4	1.9	2.3	2.6
Private Offices	5.5	4.3	3.8	5.5	7.0	8.1	8.6
Governmental Offices	1.8	1.1	1.1	1.3	1.7	1.8	2.0
Shopping/Retail	3.4	2.2	3.0	5.2	6.5	7.2	7.7
Retail Miscellaneous	0.4	0.3	0.8	0.8	0.9	1.0	1.0
Parking Garages	0.2	0.2	0.6	0.7	0.8	0.8	0.9
Amusement	1.6	3.7	3.3	3.9	4.2	4.5	4.8
Warehouses	10.9	12.8	13.3	14.6	15.6	16.3	17.0
TOTAL COMMERCIAL	24.7	25.3	26.5	33.4	38.6	42.0	44.6
<i>(Yr/yr % change)</i>	<i>-43.5%</i>	<i>2.6%</i>	<i>4.6%</i>	<i>26.0%</i>	<i>15.6%</i>	<i>8.8%</i>	<i>6.3%</i>
TOTAL INDUSTRIAL (manufacturing)	5.1	3.2	2.8	3.7	4.2	4.7	5.0
<i>(Yr/yr % change)</i>	<i>-20.4%</i>	<i>-37.7%</i>	<i>-11.3%</i>	<i>30.1%</i>	<i>15.5%</i>	<i>11.2%</i>	<i>6.7%</i>
Religious	0.1	0.3	0.2	0.4	0.4	0.4	0.4
Hospitals/Clinics	9.4	9.4	8.1	9.2	10.2	10.9	11.6
MED misc	0.2	0.2	0.5	0.7	0.9	1.1	1.2
Transportation Terminals*	0.5	0.2	1.1	1.5	1.6	1.7	1.8
Police/Fire	1.7	1.7	2.0	2.1	2.2	2.4	2.5
Educational Facilities	10.4	13.4	9.1	10.6	11.4	11.9	12.4
TOTAL INSTITUTIONAL	22.3	25.3	20.9	24.4	26.8	28.5	29.9
<i>(Yr/yr % change)</i>	<i>-3.9%</i>	<i>13.1%</i>	<i>-17.3%</i>	<i>16.9%</i>	<i>9.7%</i>	<i>6.2%</i>	<i>5.1%</i>
TOTAL NON-RES BLDG	52.1	53.8	50.2	61.5	69.6	75.1	79.5
<i>(Yr/yr % change)</i>	<i>-29.0%</i>	<i>3.2%</i>	<i>-6.6%</i>	<i>22.4%</i>	<i>13.2%</i>	<i>8.0%</i>	<i>5.9%</i>
RESIDENTIAL + NON-RES BLDG	234.7	283.4	271.5	312.1	337.5	357.8	374.8
<i>(Yr/yr % change)</i>	<i>-14.3%</i>	<i>20.8%</i>	<i>-4.2%</i>	<i>14.9%</i>	<i>8.2%</i>	<i>6.0%</i>	<i>4.8%</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)

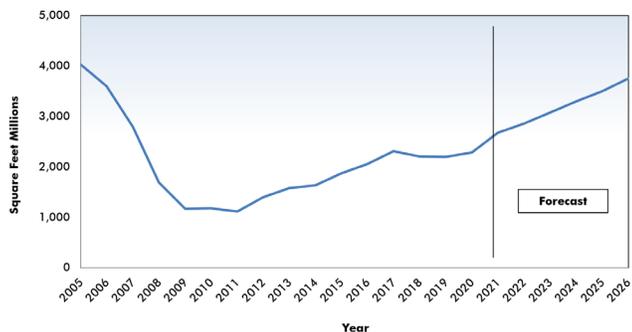
	Actuals		Forecasts				
	2020	2021	2022	2023	2024	2025	2026
Summary							
NON-RESIDENTIAL BUILDING	52.1	53.8	50.2	61.5	69.6	75.1	79.5
RESIDENTIAL	182.5	229.6	221.3	250.6	267.9	282.6	295.3
RESIDENTIAL + NON-RESIDENTIAL BUILDING	234.7	283.4	271.5	312.1	337.5	357.8	374.8
Verticals							
Offices (private)	5.5	4.3	3.8	5.5	7.0	8.1	8.6
Parking Garages	0.2	0.2	0.6	0.7	0.8	0.8	0.9
Transportation Terminals	0.5	0.2	1.1	1.5	1.6	1.7	1.8
Commercial	6.2	4.6	5.4	7.6	9.3	10.6	11.3
(Yr/Yr % change)	-52.3%	-25.1%	17.3%	40.7%	22.3%	13.2%	7.0%
Amusement	1.6	3.7	3.3	3.9	4.2	4.5	4.8
Religious	0.1	0.3	0.2	0.4	0.4	0.4	0.4
Community	1.7	4.0	3.5	4.2	4.6	4.9	5.3
(Yr/Yr % change)	-59.1%	137.1%	-14.1%	22.4%	7.7%	6.4%	8.4%
Educational	10.4	13.4	9.1	10.6	11.4	11.9	12.4
(Yr/Yr % change)	-16.0%	28.7%	-32.2%	16.5%	8.1%	4.5%	3.7%
Fire and Police Stations	1.7	1.7	2.0	2.1	2.2	2.4	2.5
Government Offices	1.8	1.1	1.1	1.3	1.1	1.8	2.0
Government	3.5	2.9	3.1	3.4	3.9	4.2	4.4
(Yr/Yr % change)	-12.6%	-19.3%	7.8%	11.5%	13.9%	7.4%	5.2%
Manufacturing	5.1	3.2	2.8	3.7	4.2	4.7	5.0
Warehouses	10.9	12.8	13.3	14.6	15.6	16.3	17.0
Industrial	16.0	16.0	16.2	18.2	19.9	21.0	22.1
(Yr/Yr % change)	-5.0%	-0.1%	0.9%	12.8%	9.0%	5.9%	4.8%
Hospitals / Clinics	9.4	9.4	8.1	9.2	10.2	10.9	11.6
Medical Misc.	0.2	0.2	0.5	0.7	0.9	1.1	1.2
Medical	9.6	9.7	8.6	10.0	11.2	12.0	12.8
(Yr/Yr % change)	9.0%	0.6%	-11.2%	16.0%	12.0%	7.9%	6.4%
Hotels	0.9	0.7	0.7	1.4	1.9	2.3	2.6
Retail Misc.	0.4	0.3	0.8	0.8	0.9	1.0	1.0
Shopping	3.4	2.2	3.0	5.2	6.5	7.2	7.7
Retail	4.7	3.2	4.4	7.4	9.3	10.5	11.3
(Yr/Yr % change)	-67.0%	-31.4%	37.9%	67.6%	26.0%	12.6%	7.5%
NON-RESIDENTIAL BUILDING	52.1	53.8	50.2	61.5	69.6	75.1	79.5
(Yr/Yr % change)	-29.0%	3.2%	-6.6%	22.4%	13.2%	8.0%	5.9%
Multi-Family	67.7	75.5	74.7	84.6	94.4	101.7	107.8
Single-Family	114.9	154.2	146.6	166.0	173.5	180.9	187.5
RESIDENTIAL	182.5	229.6	221.3	250.6	267.9	282.6	295.3
(Yr/Yr % change)	-9.0%	25.8%	-3.6%	13.2%	6.9%	5.5%	4.5%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	234.7	283.4	271.5	312.1	337.5	357.8	374.8
(Yr/Yr % change)	-14.3%	20.8%	-4.2%	14.9%	8.2%	6.0%	4.8%

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'.

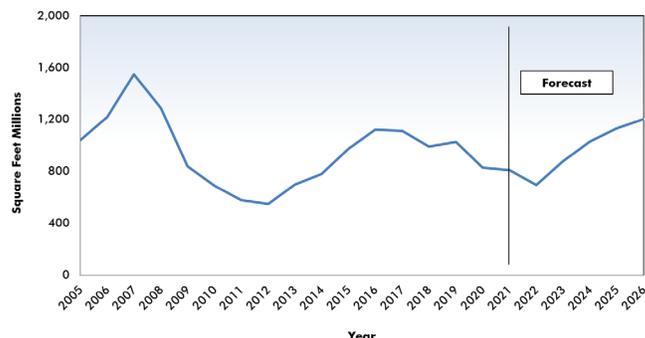
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

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



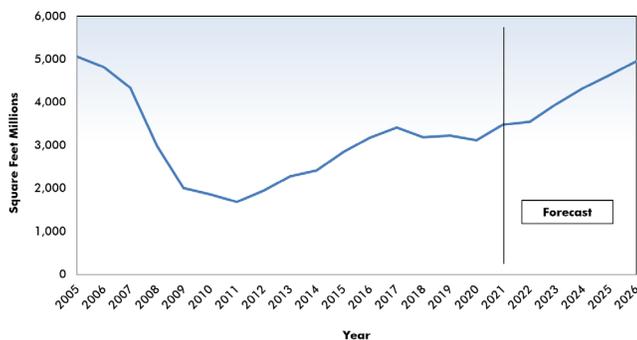
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



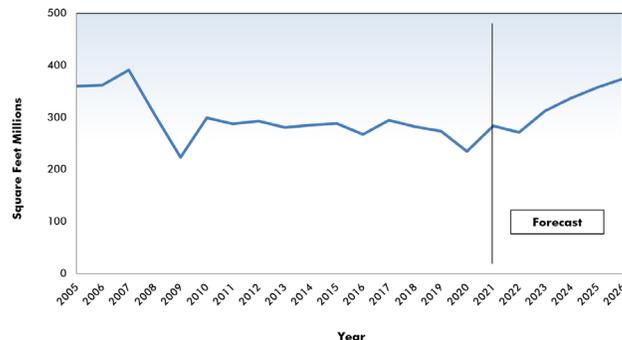
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



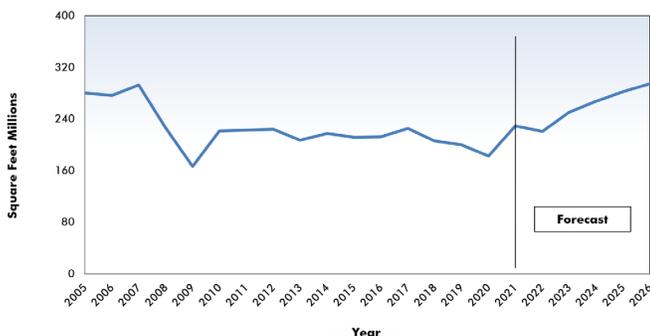
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



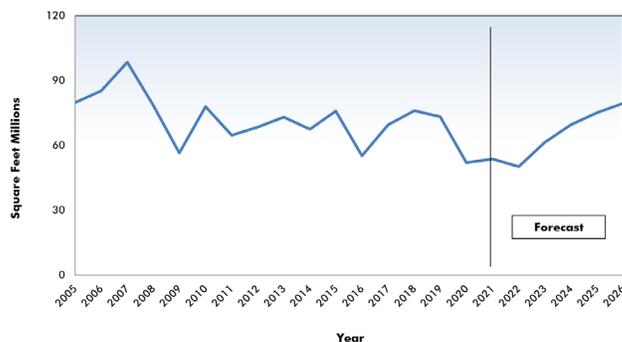
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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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