

August 2023 (based on July 2023 Starts Stats)

Construction Industry Snapshot



July's Nonresidential Construction Starts -11% M/M, 0% Y/Y, & +6% Ytd

ConstructConnect announced today that July 2023's volume of construction starts, excluding residential work, was \$58.5 billion, a decrease of -10.9% versus June 2023's figure of \$65.6 billion.

July 2023 vs July 2022 was +0.4%. Year-to-date nonres starts have been +6.2% vs Jan-Jul 2022. Grand total starts (i.e., including residential) have been -13.4% m/m; -8.1% y/y; and -5.8% ytd.



<p>July 2023 vs June 2023</p> <p>-10%</p> <p>+27% +15% +58%</p>	<p>+101%</p>	<p>-39%</p> <p>-50% -36%</p>	<p>-15%</p>	<p>-11%</p>					
<p>Jan-July 2023 vs Jan-July 2022</p> <p>-7%</p> <p>-14% -22% +6%</p>	<p>-17%</p>	<p>+12%</p> <p>+20% -15%</p>	<p>+24%</p>	<p>+6%</p>					
<p>Jan-July 2022 vs Jan-July 2021</p> <p>+27%</p> <p>+35% +43% +47%</p>	<p>+376%</p>	<p>+22%</p> <p>+17% +42%</p>	<p>+20%</p>	<p>+42%</p>					
Commercial	Retail	Private Office	Hotel & Motel	Industrial	Institutional	Schools	Hospitals & Clinics	Heavy Engineering	Total Non-Residential

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July's Nonresidential Construction Starts -11% M/M, 0% Y/Y, & +6% Ytd

2022 Exceptional for Mega Projects; 2023 Better

ConstructConnect announced today that July 2023's dollar volume of construction starts, excluding residential work, was \$58.5 billion (green shaded box, bottom of page 12), a decrease of -10.9% versus June 2023's figure of \$65.6 billion (originally reported as \$63.2 billion).

The dollar volume of July 2023 total nonresidential starts was flat (-0.4%) next to July 2022. The latest month's year-to-date result for total nonresidential starts was +6.2% when compared with the same period from last year, January to July of 2022.

Ongoing major support for starts has come from mega-sized projects, those of a billion dollars or more each. One explanation for why there have been so many mega projects can be found in the escalation of material and labor costs that have been bumping up bid prices. Nevertheless, there is an unprecedented depth to the number of super-sized projects being initiated.

Last year was stellar for mega projects. The current year has been even better. From January to July 2022, there were 18 mega project go-aheads. In the first seven months of this year, there have been 20. The total dollar volume of nonresidential mega project starts in January-July 2022 was \$56.1 billion; during the same stretch of time in 2023, the sum has been \$65.7 billion, +17.0%. The share of total nonresidential starts claimed by megas through July of last year was 16.2%; the share of total nonres starts taken by megas so far this year has been 17.9%.

July 2023's tally of mega projects included an LNG export facility, a natural gas pipeline, a new prison, a major new resort, and a data center. See the Top 10 list in Table 7, page 9.

Total year-to-date nonresidential starts in July, including megas, were +6.2%. Leaving each year's megas out of the calculation, the percentage change was +4.1%.

To complete the overview picture, the GRAND TOTAL dollar volume (i.e., adding residential to nonresidential activity; and including all projects, megas and non-megas) of starts in July 2023 was -13.4% m/m, -8.1% y/y, and -5.8% ytd. Weakness in residential starts (-23.9% ytd) has been holding back Grand Total starts ytd.

Some Wobble Evident in TTM Starts

Other statistics often beloved by analysts are trailing twelve-month (TTM) results and these are set out for all the various type-of-structure categories in Table 9 on page 12 of this report.

Grand Total TTM starts in July, on a month-to-month basis, were -0.8%, turning negative again after June's 0.0%, but not sinking as fast as May's -2.5%. On a year-over-year basis, Grand Total TTM starts in July stayed on the plus side of change, +2.4%, but they extended the slide from June's +5.1% and May's +7.3%.

Res and Nonres Results Radically Diverge in PIP Numbers

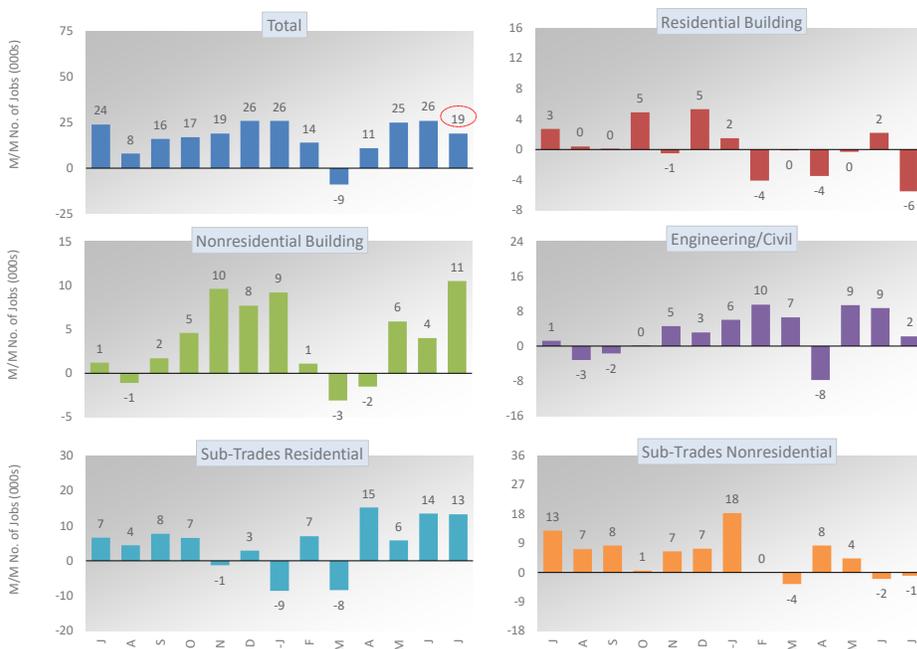
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TABLE 1: VALUE OF UNITED STATES NONRESIDENTIAL CONSTRUCTION STARTS — JULY 2023 (ConstructConnect®)

	Jan-Jul 2023 (\$ billions)	% Change Jan-Jul 23 vs Jan-Jul 22	% Change Jul 23 vs Jul 22	% Change Jul 23 vs Jun 23
Hotel/Motel	6.820	6.0%	2.7%	57.5%
Retail/Shopping	9.159	-13.6%	31.7%	27.4%
Parking Garage	1.131	-10.0%	-2.0%	99.6%
Amusement	5.670	30.9%	-27.3%	-12.9%
Private Office	11.739	-22.4%	-3.5%	14.7%
Government Office	9.634	33.1%	19.8%	-23.6%
Laboratory	1.613	-33.6%	-47.4%	187.3%
Warehouse	11.642	-35.8%	-53.2%	26.6%
Miscellaneous Commercial *	11.661	32.3%	-26.7%	-73.7%
COMMERCIAL (big subset)	69.070	-7.1%	-16.9%	-10.1%
INDUSTRIAL (Manufacturing)	53.572	-16.6%	-2.0%	100.9%
Religious	0.692	24.7%	118.6%	7.5%
Hospital/Clinic	13.477	-14.8%	-76.6%	-36.3%
Nursing/Assisted Living	1.421	-50.5%	-43.6%	158.4%
Library/Museum	2.117	5.4%	11.4%	-26.6%
Fire/Police/Courthouse/Prison	7.130	59.6%	254.6%	239.6%
Military	11.249	127.4%	75.9%	-72.3%
School/College	54.228	19.6%	-12.2%	-50.0%
Miscellaneous Medical	4.390	-49.8%	-36.4%	-19.4%
INSTITUTIONAL	94.706	11.7%	-10.2%	-39.1%
Miscellaneous Non-residential	4.199	-8.5%	-36.5%	-7.3%
NONRESIDENTIAL BUILDING	221.547	-2.8%	-10.3%	-8.1%
Airport	6.112	38.3%	-19.2%	-54.6%
Road/Highway	63.503	19.5%	20.2%	-5.6%
Bridge	15.598	-5.3%	11.3%	20.0%
Dam/Marine	6.672	60.4%	7.3%	29.2%
Water/Sewage	28.627	13.5%	4.6%	-3.8%
Miscellaneous Civil (power, pipelines, etc.)	25.659	73.2%	103.3%	-36.3%
HEAVY ENGINEERING (Civil)	146.171	23.6%	24.7%	-15.0%
TOTAL NONRESIDENTIAL	367.719	6.2%	0.4%	-10.9%

* Includes transportation terminals and sports arenas.

GRAPH 1: CHANGE IN LEVEL OF U.S. CONSTRUCTION EMPLOYMENT, MONTH TO MONTH (M/M) — TOTAL & BY CATEGORIES — JULY 2023



Full year 2022's monthly average change in construction employment was +22,000 jobs. (Much of the lift came in February 2022, at +79,000 jobs m/m.) January-to-July 2023's average increase in construction employment has been +16,000 jobs.

For each month, 'net' = zero. 'Sub-trade' in BLS data referred to as 'specialty' trade.

Data Source: Bureau of Labor Statistics (BLS)/Chart: ConstructConnect.

Continued from page 2

'Starts' compile the total estimated dollar value and square footage of all projects on which ground is broken in any given month. They lead, by nine months to as much as two years, put-in-place (PIP) statistics from the Census Bureau which are analogous to work-in-progress payments as the building of structures proceeds to completion.

PIP numbers cover the 'universe' of construction, new plus all manner of renovation activity, with residential traditionally (i.e., over the decade preceding the pandemic) making up two-fifths (about 40%) of the total and non-residential, three-fifths (i.e., the bigger portion, at around 60%).

In 2021 and 2022, there were dramatic changes in the proportional shares of the total put-in-place dollar volumes taken by residential versus nonresidential. In 2021's full year PIP results, the relationship was about half and half, with residential at 49.4% and nonresidential, 50.6%. In 2022, residential finally seized the larger share of total, 50.7% to 49.4% for nonresidential.

This altered relationship, given the boosts to interest rates, could not be expected to last. Higher interest rates, which harm affordability, have an almost immediate detrimental impact on housing demand. True to historical form, residential's year-to-date share of total PIP dollars through June of this year has retreated to 45.3%. The other 54.7% belongs to nonresidential. (Through the first half of last year, the weighting of shares was 52.1% residential and 47.9% nonresidential.)

The reported PIP numbers from the Census Bureau are always a month behind the 'starts' data. The total dollar volume of construction put-in-place through June of this year has been +3.0%, with residential in a significant funk, -10.4%, but nonresidential stepping forward in lively fashion, +17.6%.

Nonresidential construction's leading PIP sub-category for year-to-date percentage change (H1 2023/H1 2022) has been 'manufacturing', an impressive +73.9%. By dollar volume year to date, 'manufacturing' has become largest among the PIP nonresidential sub-categories.

Other PIP nonres line items recording significant ytd gains have been 'lodging', +25.2%; 'waste disposal and water delivery', +19.9%; 'highway and street', +16.7%; and 'health care', +13.4%.

PIP numbers, being more spread out, have smaller peak-over-trough percent-change amplitudes than the 'starts' series. As an additional valuable service for clients and powered by its extensive 'starts' database, ConstructConnect, in partnership with Oxford Economics, a world-leader in econometric modeling, has developed put-in-place construction statistics by types of structure for U.S. states, cities and counties, actuals and forecasts. ConstructConnect's PIP numbers are being released quarterly and are featured in a separate reporting system.

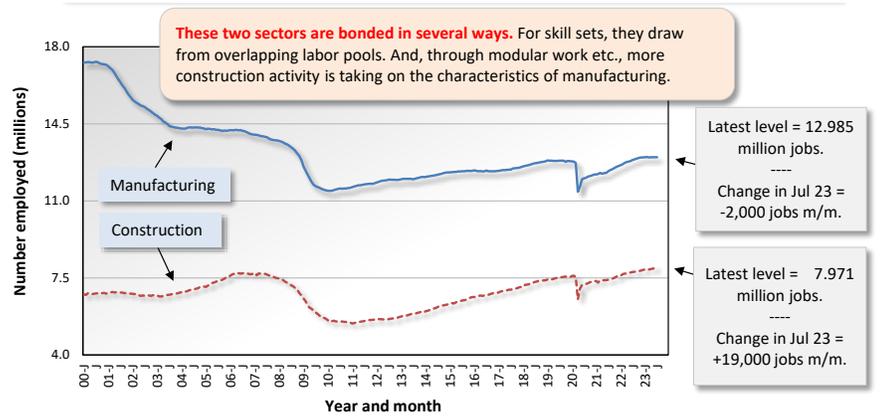
Construction's Jobs Count +19,000 in July

Construction's share of U.S. total non-farm employment in the monthly labor market report issued by the Bureau of Labor Statistics (BLS) is slightly more than 5.0%. Accordingly, to claim its rightful portion of July's +187,000 economy-wide number-of-jobs advance, the figure for construction would have needed to be +10,000. The actual figure of +19,000 beat the target by nearly double. Graph 1 shows that month-to-month hiring in July was most active among nonresidential building contractors (+11,000) and at the residential sub-trade level (+13,000).

Construction's not seasonally adjusted (NSA) unemployment rate (U) in July was 3.9%, up a little from June's 3.6% and also a bit higher (i.e., a worsening) from July of

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GRAPH 2: U.S. MANUFACTURING VS CONSTRUCTION EMPLOYMENT JULY, 2023 — SEASONALLY ADJUSTED (SA) PAYROLL DATA

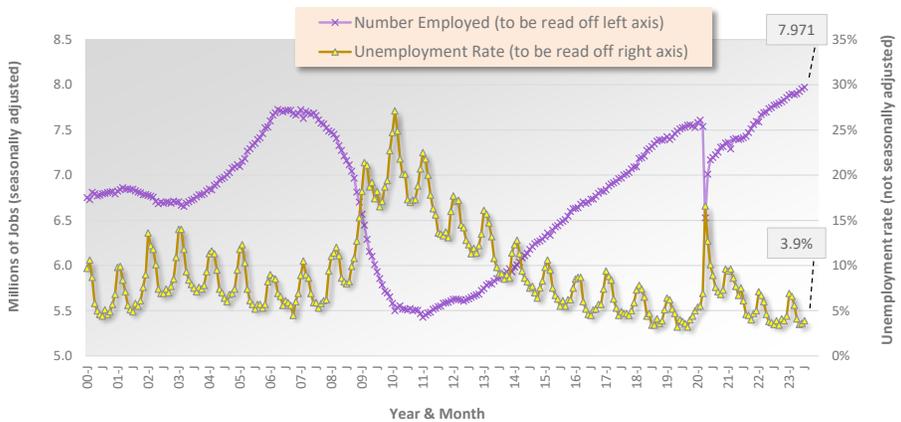


The not seasonally adjusted (NSA) unemployment rate for construction is presently 3.9%. In April 2020, at its worst, it was 16.6%. Manufacturing's current NSA jobless rate is a mere 2.7%. April 2020's extreme was 13.2%. In early 2000, the ratio of construction to manufacturing jobs was 0.4 to 1.0. Now, it's 0.6 to 1.0.

Latest data points are for July, 2023.

Source: Payroll Survey, U.S. Bureau of Labor Statistics (BLS) / Chart: ConstructConnect-CanaData.

GRAPH 3: U.S. CONSTRUCTION EMPLOYMENT (SA) & UNEMPLOYMENT RATE (NSA)



Current through July, 2023.

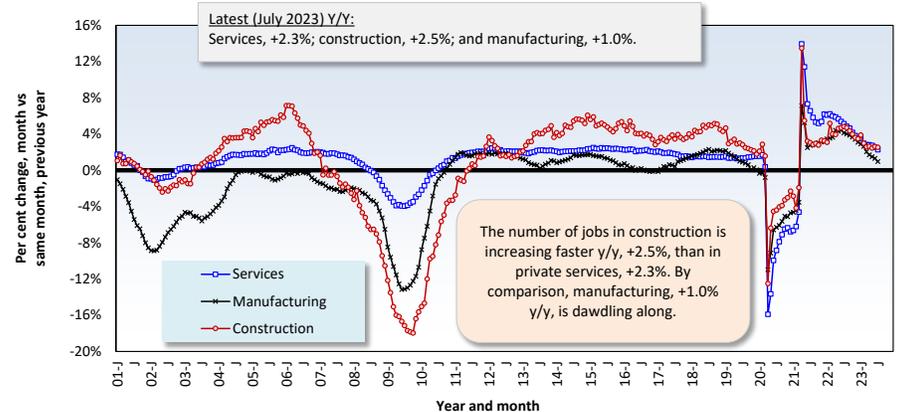
SA is seasonally adjusted / NSA is not seasonally adjusted.

Construction employment (SA) in July was up (+19,000 jobs) from June, plus it was at an all-time high. Construction's U rate (NSA) in July (3.9%), though, loosened a bit versus June (3.6%).

Current through July, 2023.

Data source: Bureau of Labor Statistics (BLS) / Chart: ConstructConnect.

GRAPH 4: U.S. EMPLOYMENT JULY 2023 — % CHANGE Y/Y BASED ON SEASONALLY ADJUSTED (SA) DATA



The latest data points are for July, 2023.

Data source: Payroll Survey, Bureau of Labor Statistics (U.S. Department of Labor)/Chart: ConstructConnect.

Continued from page 3

last year's 3.5%. The 3.9% NSA U figure for construction was almost a match for the 3.8% NSA U level for 'all jobs'. Graph 3 makes the seasonality of construction's unemployment rate readily apparent.

Manufacturing's NSA U rate in July, at 2.7%, was tighter than for construction. Both the manufacturing and construction sectors are in the goods-producing segment of the economy (i.e., as opposed to private services-providing) and there is considerable overlap between their labor pools. Staffing by manufacturers in July, however, took a hit, -2,000 jobs (see Graph 2). The massive amount of capital spending that is currently being undertaken by manufacturers will, in lagged fashion, translate to more jobs, although ever greater adoption of automation and robotics will act as restraints.

In July, U.S. total employment was +2.2% year over year. The number of 'private services-providing' jobs was up a shade more, +2.3% y/y. The increase in construction's worker count was another notch upwards, +2.5% y/y. Leading all sectors was 'leisure and hospitality' with hiring of +4.4% y/y, but it was only a little ahead of 'health care and social assistance', +4.2% y/y. The expansion of manufacturers' payrolls was modest, +1.0% y/y (Graph 5).

In other segments of the economy with close ties to construction, the latest y/y changes in employment were as follows: cement and concrete product manufacturing, +4.6%; machinery and equipment rental and leasing, +4.4%; architectural and engineering design services, +4.3%; real estate, +2.1%; oil and gas exploration and development, -4.0%; and building materials and supplies dealers, -4.2% (although housing starts are no longer 'free falling' like last year).

Design services work at architectural and engineering firms is an early-stage step in the entire building process that culminates in job site field activity. Therefore, the +4.3% y/y advance in the number of jobs in the sector is encouraging news. Also with positive implications, the June Architecture Billings Index (ABI) from the American Institute of Architects (AIA) and Deltek stayed above 50.0 for the second month in a row (although at 50.1, it was down from 51.0 in May). Below 50.0, revenues for design firms are shrinking; above it, they've expanding. Another index from AIA/Deltek measures inquiries into new projects. In June, that index stood at 56.7.

Pluses and Minuses among Type-of-structure Sub-categories

The -10.9% decline in the value of total nonresidential starts in July versus June (m/m) was no fault of the industrial/manufacturing sub-category, which recorded a doubling (+100.9%). The other major types of structure, however, all weakened: institutional, -39.1%; heavy engineering/civil, -15.0%; and commercial, -10.1%.

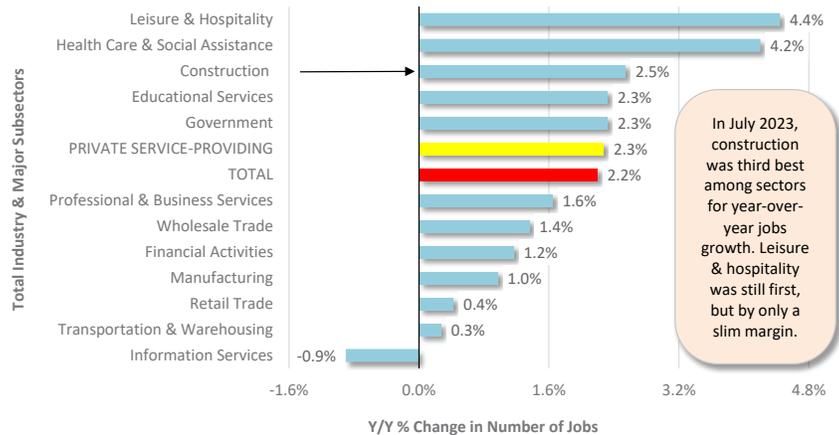
The 'no movement' (+0.4%) result for total nonresidential starts in July 2023 versus July 2022 (y/y) was the net result of setbacks in commercial (-16.9%), institutional (-10.2%), and to a slight degree, industrial (-2.0%), that were offset by engineering (+24.7%).

The year-to-date climb (+6.2%) of total nonresidential starts in the latest month was thanks to improvements by engineering (+23.6%) and institutional (+11.7%) that more than overcame contractions by industrial (-16.6%) and commercial (-7.1%).

Usually, about a third of all nonresidential starts derive from just two sub-category type-of-structure designations, 'roads/highways' and 'schools/colleges'. Through the first seven months of 2023, their shares of total were

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GRAPH 5: Y/Y JOBS CHANGE, U.S. TOTAL INDUSTRY & MAJOR SUBSECTORS — JULY 2023 (BASED ON SEASONALLY ADJUSTED PAYROLL DATA)

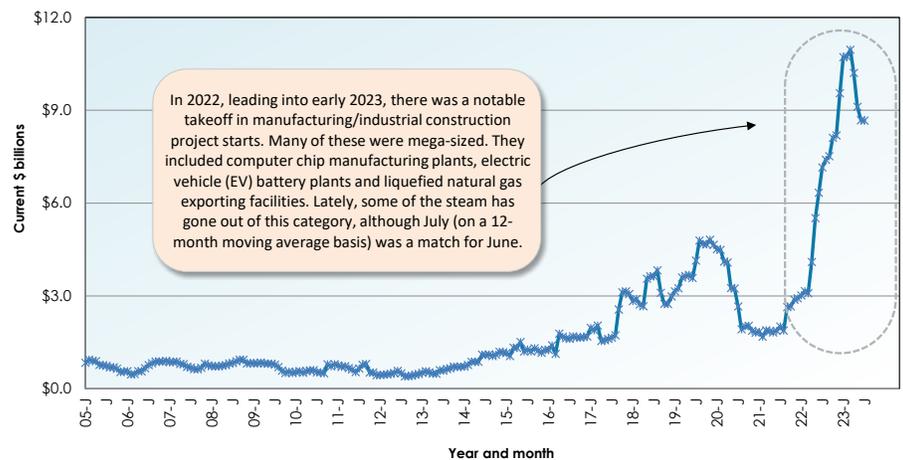


In July 2023, construction was third best among sectors for year-over-year jobs growth. Leisure & hospitality was still first, but by only a slim margin.

July 2023's y/y changes in employment within the pandemic's initially hardest-hit sector, 'leisure & hospitality', were: 'amusements/gambling', +8.0%; 'hotels/motels', +4.4%; and 'restaurants/bars', +4.0%.

Data source: Payroll Survey, U.S. Bureau of Labor Statistics (Dept of Labor)/Chart: ConstructConnect.

GRAPH 6: U.S. MANUFACTURING/INDUSTRIAL CONSTRUCTION STARTS — CONSTRUCTCONNECT



In 2022, leading into early 2023, there was a notable takeoff in manufacturing/industrial construction project starts. Many of these were mega-sized. They included computer chip manufacturing plants, electric vehicle (EV) battery plants and liquefied natural gas exporting facilities. Lately, some of the steam has gone out of this category, although July (on a 12-month moving average basis) was a match for June.

The last data point is for July 2023.

Data source: ConstructConnect. Graph: ConstructConnect.

TABLE 2: CONSTRUCTION STARTS IN SOME ADDITIONAL TYPE OF STRUCTURE SUB-CATEGORIES — ConstructConnect®

	Jan-Jul 2023 (\$ billions)	% Change vs Jan-Jul 2022
Sports Stadiums/Convention Centers	\$6.256	30.6%
Transportation Terminals	\$5.405	34.4%
Courthouses	\$1.160	30.1%
Police Stations & Fire Halls	\$2.687	23.2%
Prisons	\$3.283	135.6%
Pre-School/Elementary	\$15.664	11.6%
Junior & Senior High Schools	\$22.633	21.3%
K-12 (sum of above two categories)	\$38.297	17.2%
Special & Vocational Schools	\$1.100	-9.2%
Colleges & Universities	\$14.832	29.7%
Electric Power Infrastructure	\$9.821	42.9%

Source: ConstructConnect/Table: ConstructConnect.

Continued from page 4

17.3% and 14.7% respectively, adding to 32.0%.

The three percentage-change metrics for street starts in July were -5.6% m/m, but +20.2% y/y and +19.5% ytd. For school starts, the results in the latest month were -50.0% m/m and -12.2% y/y, but +19.6% ytd. Diving further into educational facility starts, 'colleges and universities' (+29.7% ytd) and 'junior and senior' high schools (+21.3% ytd) have done best (see Table 2).

Important beyond roads within the engineering sub-category are 'water/sewage' and 'bridge' starts. The results for the former in July were -3.8% m/m, but +4.6% y/y, and +13.5% ytd. For the latter, they were +20.0% m/m and +11.3% y/y, but -5.3% ytd.

July's three metrics for 'miscellaneous civil' starts, a designation which includes pipeline, electric power, and railroad projects, were -36.3% m/m, but +103.3% y/y, and +73.2% ytd.

Important beyond schools within institutional work are three medical sub-categories - i.e., 'hospitals/clinics', 'nursing/assisted living' and 'miscellaneous medical'. Their combined starts in July made a poor showing: -21.0% m/m, -66.5% y/y, and -29.7% ytd. 'Hospital' starts on their own in the latest month were likewise downbeat: -36.3% m/m; -76.6% y/y; and -14.8% ytd.

Among commercial sub-categories in July, 'amusement' (+30.9%), 'government offices' (+33.1%), and 'miscellaneous' (+32.3%) were each up by about a third year to date. Within 'miscellaneous', 'transportation terminals' were +34.4% ytd and 'sports stadiums', +30.6% ytd (i.e., increases that were also near a third).

But many of commercial's sub-categories continued to be down in a striking way, year to date: 'warehouses', -35.8%; 'laboratories', -33.6%; and 'private office buildings', -22.4% (although there was a Google data center among July's Top 10 projects; Table 7, page 9).

Some other commercial sub-categories are no longer as deep in the doldrums as they once were: 'retail/shopping', -13.6% ytd (but +27.4% m/m and +31.7% y/y); and 'hotels/motels', an encouraging +6.0% ytd (and +57.5% m/m, as well as +2.7% y/y).

Trend Lines Wavering

Page 10 of this Industry Snapshot sets out the history, January 2005 to the present, of 12-month moving averages of 'starts', from ConstructConnect's database, for a dozen construction types-of-structure. The moving-average approach is designed to capture trends. As a technical note, the moving average is graphed (i.e., placed) in the ending month.

Clearly there's an upswing in 'heavy engineering'. Three others with significant uplift include 'schools/colleges', 'roads/highways' and 'miscellaneous civil'. 'Nonresidential buildings', though, is stumbling, as are 'private office buildings' and 'retail'. There seems to be uncertainty in the rest of the graphs as to which direction they would like to take.

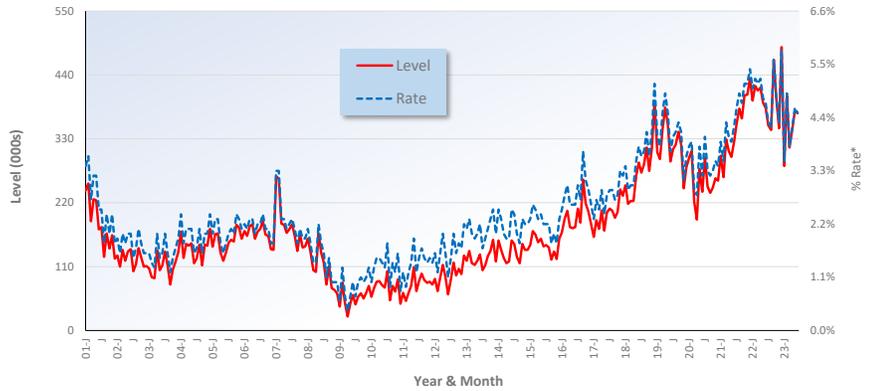
Construction Workers Beating 'All Jobs' on Payroll Front

Tables B-3 and B-8 of the monthly *Employment Situation report*, from the BLS, record average hourly and average weekly wages for industry sectors. B-3 is for all employees (i.e., including bosses) on non-farm payrolls. B-8 is for 'production and non-supervisory personnel' only (i.e., it excludes bosses). For 'all jobs' and construction, there are eight percentage changes to follow.

From July 2023's Table B-3 (including bosses), y/y all-jobs earnings were +4.4% hourly and +3.5% weekly. Compensation hikes for construction workers, as a subset of 'all

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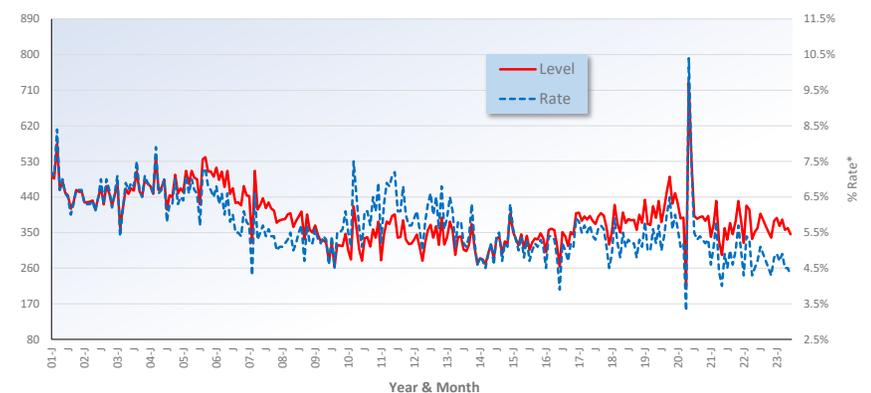
**GRAPH 7: U.S. CONSTRUCTION JOB OPENINGS (FROM JOLTS REPORT)
SEASONALLY ADJUSTED & ACTUALS (I.E., NOT SMOOTHED WITH MOVING AVERAGES)**



There's been volatility in the 'openings' figures for construction lately, both as a level and rate. The year-over-year decline in construction's level of openings in June, however, at -2.3%, was less than for 'all jobs', -12.6%.

*Rate is number of job openings end-of-month as % of 'construction employment plus number of job openings'. Latest seasonally adjusted data points are for June 2023. ... JOLTS = Job Openings and Labor Turnover Survey.
Data source: Bureau of Labor Statistics (Dept of Labor)/Chart: ConstructConnect.

**GRAPH 8: U.S. CONSTRUCTION JOB HIRES (FROM JOLTS REPORT)
SEASONALLY ADJUSTED & ACTUALS (I.E., NOT SMOOTHED WITH MOVING AVERAGES)**



Construction job hires as both a level and a rate have been moving mainly sideways for quite a while now. The rate, more than the level, has been fluctuating within a range lower than its historical norm.

*Rate is number of hires during month as % of construction employment. Latest seasonally adjusted data points are for June 2023. ... JOLTS = Job Openings and Labor Turnover Survey.
Data source: Bureau of Labor Statistics (Dept of Labor)/Chart: ConstructConnect.

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jobs', were better at +5.4% hourly and +6.0% weekly. From Table B-8 for production and non-supervisory workers (i.e., excluding bosses), the y/y 'all-jobs' paycheck advances were +4.8% hourly and +4.2% weekly. Construction workers, though, once again found themselves in a more advantageous position, with stipend hikes, both hourly and weekly, of +5.8% y/y.

June 2023's CPI-U 'all items' inflation number was +3.0% y/y (although the 'core' rate, which omits volatile food and energy items, was still elevated at +4.8% y/y). Comparing wage gains to inflation suggests that purchasing power, a key ingredient in the consumer spending that drives gross domestic product (GDP), is no longer under the same severe strain as a year ago.

Y/Y Negatives Prevail in Construction Pricing and Costing

July 2023's y/y results for three building related BLS Producer Price Index (PPI) series were: (A) 'construction materials special index', -4.3% (a further reduction from June's -3.4%); (B) 'inputs to new construction index, excluding capital investment, labor, and imports', -2.9% (turning less negative versus the previous month's -5.0%); and (C) 'final demand construction', designed to capture bid prices, +3.8% (a deceleration from the prior period's +10.4%).

(A) comes from a data series with a long history, but it's confined to a limited number of major construction materials. (B) has a shorter history, but it's more comprehensive in its coverage, although it includes some items (e.g., transportation) that aren't strictly materials.

There are also PPI indices for specific construction inputs. For July, there were only a few materials showing y/y price increases: cement, +12.6%; ready-mix concrete, +10.4%; and gypsum products, +2.2%. There were far more items with negative y/y price performances: number 2 diesel fuel, -45.2%; asphalt, -36.5%; softwood lumber, -17.3%; hot rolled steel bars, plates, and structural shapes, -12.5%; aluminum mill shapes, -7.8%; and copper wire and cable, -2.8%. Also, there's an 'inputs to highways and streets' index, -2.1% y/y. Unleaded gasoline in the PPI data series is -24.9% y/y; as a subset in the Consumer Price Index (CPI), it's -19.9% y/y.

The value of construction starts each month is derived from ConstructConnect's database of all active construction projects in the U.S. The non-residential construction starts series, because it is comprised of total-value estimates for individual projects, some of which are super-large, has a history of being more volatile than many other leading indicators for the economy.

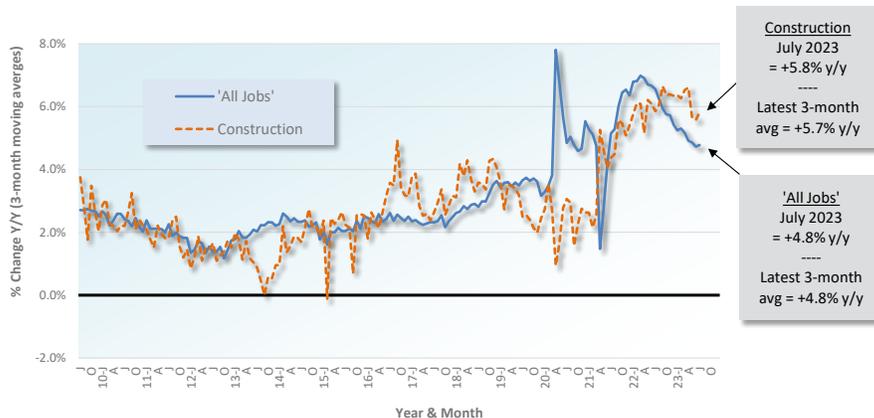
July 2023's 'Grand Total' Starts -5.8% Ytd

From Table 6 on page 8 (and also from Table 9 on page 12) of this report, ConstructConnect's total residential starts in July 2023 were -19.3% m/m, -24.7% y/y, and -23.9% ytd. Multi-family starts were -19.0% m/m, -40.3% y/y, and -26.5% ytd. Completing the picture, single-family starts were -19.4 m/m, -15.2% y/y, and -22.5% ytd.

Including home building with all nonresidential categories, Grand Total starts in July 2023 were -13.4% m/m, -8.1% y/y, and -5.8% ytd.

ConstructConnect adopts a research-assigned 'start' date. In concept, a 'start' is equivalent to ground being broken for a project to proceed. If work is abandoned or re-bid, the 'start' date is revised to reflect the new information.

GRAPH 9: AVERAGE HOURLY EARNINGS Y/Y — 'ALL JOBS' & CONSTRUCTION



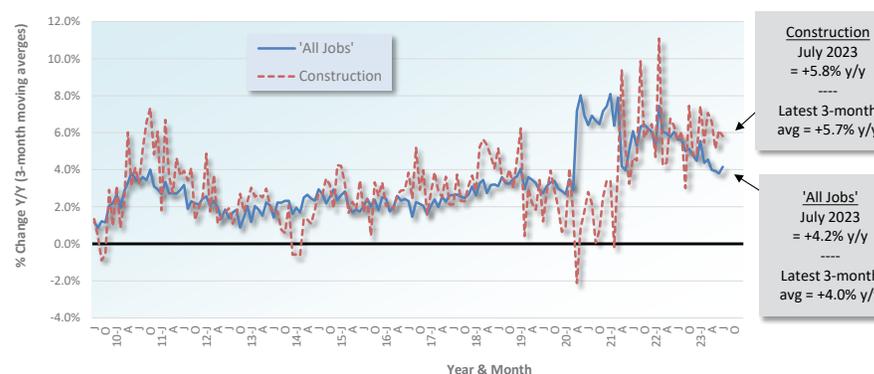
Y/y wage gains for 'all jobs', and even more for construction work, are advancing faster than inflation (+3.0% y/y for all items CPI in June '23). Average y/y hourly wage gains for construction workers, 2010-2019, were +2.3%; for 'all jobs', +2.4%.

From 'Production Workers and Non-supervisory Personnel' Table (B8).

The latest data points are for July, 2023.

Data Source: Bureau of Labor Statistics (BLS)'s Employment Situation report/Chart: ConstructConnect.

GRAPH 10: AVERAGE WEEKLY EARNINGS Y/Y — 'ALL JOBS' & CONSTRUCTION



The economy is contending with high interest rates; but in the Summer months, 'seasonality' is benefitting construction activity. Currently, the NSA unemployment rate in construction is 3.9%, just slightly above the 'all jobs' figure of 3.8%.

From 'Production Workers and Non-supervisory Personnel' Table (B8).

The latest data points are for July, 2023.

Data Source: Bureau of Labor Statistics (BLS)'s Employment Situation report/Chart: ConstructConnect.

Expansion Index Monitors Construction Prospects

A rule of thumb is that nonresidential construction is a lagging indicator among economic measures. Companies are hesitant to undertake capital spending until their personnel needs are rapidly expanding and their office square footage or plant footprints are straining capacity. Plus, it helps if profits are abundant.

The 'rule' doesn't always hold true, however. For example, under present circumstances, weakness in some (mainly cyclical) areas of construction investment may well be offset by rich veins of large industrial and engineering projects.

Each month, ConstructConnect publishes information on upcoming construction projects at its Expansion Index web location, to be found by clicking on this link, <https://www.constructconnect.com/expansion-index>

The Expansion Index, for hundreds of cities in the U.S. and Canada, calculates the ratio, based on dollar volume, of projects in the planning stage, at present, divided by the comparable figure a year ago. The ratio moves above 1.0 when there is currently a larger dollar volume of construction 'prospects' than there was last year at the same time. The ratio sinks below 1.0 when the opposite is the case. The results are set out in interactive maps for both countries.

America's Credit Downgrade Will Have Consequences for Construction

Recently Fitch Ratings became the second ratings firm to downgrade the American government's top-notch credit rating of 'AAA', citing expected fiscal deterioration over the coming years coupled with the ongoing political dysfunction in Washington. Understanding how such downgrades and 20-years-and-counting of rising public debt are going to impact the construction sector will be essential for industry leaders as they navigate their firms even over the next short few years.

(1) Everyone will pay a higher interest rate and for longer

The interest rate on virtually all private sector debt is calculated based on an additional amount of interest charged above what is coined the 'risk-free' rate. Historically the risk-free rate has been synonymous with the interest rate the government pays on Treasury debt. By design, the private sector therefore always pays a higher interest rate than that paid by the government.

Furthermore, firms that are less financially secure pay higher premiums relative to more secure firms. In 2019, the risk-free rate which is synonymous with the 10-year treasury bond rate was 3%. However, an 'A' credit rating firm paid 3.9%, nearly 1.00% more than the government's risk-free rate. At the far end of the credit rating scale were 'CCC'-rated firms paying 12% interest, nearly four-times that of treasury bonds. Using this understanding of the credit system, it becomes clear why a decrease in the government's own credit rating, will potentially raise the risk-free rate and by extension the rate paid by all others.

(2) The government will be forced to drastically cut discretionary spending

In 2022, the government took in \$4.9 trillion in receipts. Of this, \$4.6 trillion paid for mandatory spending, dominated by social security, other welfare programs, and interest on the public debt. This left only \$300 million to self-fund defense, education, and public infrastructure across the country. However, as it has for decades, the government borrowed \$1.4 trillion dollars that year to make \$1.7 trillion in total discretionary purchases. Without access to that borrowed capital, 80% of discretionary spending would have been impossible. Under such circumstances, the construction, defense, and education sectors would have found themselves bitterly contesting with one another over a vastly smaller pool of discretionary public dollars.

Fitch's decision to downgrade America's credit-rating based on its long-lived public spending behavior has its justifications. The consequences of past public fiscal habits will be most keenly felt by those industries that regularly access capital markets and secondly are supported by public discretionary spending. Unfortunately, the construction industry falls directly in the cross hairs of both concerns. As a result, construction executives will need to prepare sooner rather than later to navigate through a future construction environment that is vastly different, with higher financing costs and potentially far fewer public projects.

Michael Guckes, Senior Economist

TABLE 3: 2023 YTD RANKING OF TOP 20 STATES BY \$ VOLUME OF NONRESIDENTIAL CONSTRUCTION STARTS — ConstructConnect®

	Jan-Jul 2023	% Change vs Jan-Jul 2022
1 Texas	\$64,221,266,348	14.8%
2 California	\$27,739,395,477	-2.4%
3 New York	\$20,855,922,287	13.4%
4 Florida	\$18,420,522,350	3.4%
5 Ohio	\$13,751,087,602	66.6%
6 Indiana	\$11,233,740,479	26.4%
7 Pennsylvania	\$10,950,454,070	-3.9%
8 North Carolina	\$10,568,678,082	-19.6%
9 Illinois	\$10,485,525,627	2.9%
10 Michigan	\$9,987,548,920	-34.7%
11 Virginia	\$9,587,213,548	40.5%
12 Georgia	\$9,578,721,055	12.6%
13 Arizona	\$8,029,032,273	80.3%
14 Massachusetts	\$7,606,155,632	29.5%
15 Alabama	\$7,550,095,364	31.6%
16 Kansas	\$7,257,746,147	167.4%
17 Tennessee	\$6,585,301,755	24.4%
18 Maryland	\$6,146,402,495	27.5%
19 Washington	\$5,742,104,393	-24.0%
20 Wisconsin	\$5,469,696,535	-23.7%

Figures are comprised of non-res building & engineering (residential is omitted).

TABLE 4: 2023 YTD RANKING OF TOP 20 STATES BY \$ VOLUME OF NONRESIDENTIAL BUILDING CONSTRUCTION STARTS — ConstructConnect®

	Jan-Jul 2023	% Change vs Jan-Jul 2022
1 Texas	\$43,029,918,717	2.8%
2 California	\$15,080,960,884	-21.9%
3 New York	\$13,971,572,075	18.3%
4 Florida	\$10,374,652,909	-16.6%
5 Ohio	\$9,488,750,496	108.4%
6 Indiana	\$8,532,716,334	48.3%
7 North Carolina	\$7,373,104,650	-23.0%
8 Virginia	\$6,760,941,984	58.7%
9 Arizona	\$6,359,609,605	96.1%
10 Alabama	\$5,932,054,982	42.5%
11 Pennsylvania	\$5,732,266,382	-19.4%
12 Georgia	\$5,703,811,130	-8.7%
13 Kansas	\$5,466,568,663	320.6%
14 Michigan	\$4,938,856,804	-56.6%
15 Tennessee	\$4,931,931,787	37.2%
16 Massachusetts	\$4,896,695,627	14.4%
17 Illinois	\$4,742,336,970	-12.1%
18 Maryland	\$4,394,103,345	23.4%
19 Hawaii	\$3,516,233,791	942.3%
20 Washington	\$3,285,666,012	-21.6%

TABLE 5: 2023 YTD RANKING OF TOP 20 STATES BY \$ VOLUME OF HEAVY ENGINEERING/CIVIL CONSTRUCTION STARTS — ConstructConnect®

	Jan-Jul 2023	% Change vs Jan-Jul 2022
1 Texas	\$21,191,347,631	50.6%
2 California	\$12,658,434,593	39.0%
3 Florida	\$8,045,869,441	49.8%
4 New York	\$6,884,350,212	4.7%
5 Illinois	\$5,743,188,657	19.7%
6 Pennsylvania	\$5,218,187,688	21.9%
7 Michigan	\$5,048,692,116	28.5%
8 Ohio	\$4,262,337,106	15.1%
9 Georgia	\$3,874,909,925	71.0%
10 Alaska	\$3,850,852,678	564.6%
11 Wyoming	\$3,399,182,267	114.5%
12 North Carolina	\$3,195,573,432	-10.7%
13 Minnesota	\$3,072,112,507	-21.0%
14 Virginia	\$2,826,271,564	10.1%
15 Wisconsin	\$2,762,653,261	-1.1%
16 Massachusetts	\$2,709,460,005	69.9%
17 Indiana	\$2,701,024,145	-13.9%
18 Louisiana	\$2,587,801,649	9.0%
19 Oregon	\$2,525,007,782	34.9%
20 Washington	\$2,456,438,381	-27.0%

Data source and Tables: ConstructConnect.

Alex Carrick is Chief Economist for ConstructConnect. He has delivered presentations throughout North America on the U.S., Canadian and world construction outlooks. Mr. Carrick has been with the company since 1985. Links to his numerous articles are featured on [Twitter @ConstructConnx](#), which has 50,000 followers.

INSIGHT view of starts statistics

TABLE 6: VALUE OF UNITED STATES CONSTRUCTION STARTS
ConstructConnect® INSIGHT VERSION — JULY 2023
ARRANGED TO MATCH THE ALPHABETICAL CATEGORY DROP-DOWN MENUS IN INSIGHT

	Jan-Jul 2023 (\$ billions)	% Change Jan-Jul 23 vs Jan-Jul 22	% Change Jul 23 vs Jul 22	% Change Jul 23 vs Jun 23
Summary				
CIVIL	146.171	23.6%	24.7%	-15.0%
NONRESIDENTIAL BUILDING	221.547	-2.8%	-10.3%	-8.1%
RESIDENTIAL	174.273	-23.9%	-24.7%	-19.3%
GRAND TOTAL	541.992	-5.8%	-8.1%	-13.4%
Verticals				
Airport	6.112	38.3%	-19.2%	-54.6%
All Other Civil	15.838	99.5%	306.6%	143.0%
Bridges	15.598	-5.3%	11.3%	20.0%
Dams / Canals / Marine Work	6.672	60.4%	7.3%	29.2%
Power Infrastructure	9.821	42.9%	-97.4%	-99.5%
Roads	63.503	19.5%	20.2%	-5.6%
Water and Sewage Treatment	28.627	13.5%	4.6%	-3.8%
CIVIL	146.171	23.6%	24.7%	-15.0%
Offices (private)	11.739	-22.4%	-3.5%	14.7%
Parking Garages	1.131	-10.0%	-2.0%	99.6%
Transportation Terminals	5.405	34.4%	-66.0%	-20.7%
Commercial (small subset)	18.275	-10.5%	-16.1%	14.2%
Amusement	5.670	30.9%	-27.3%	-12.9%
Libraries / Museums	2.117	5.4%	11.4%	-26.6%
Religious	0.692	24.7%	118.6%	7.5%
Sports Arenas / Convention Centers	6.256	30.6%	22.3%	-78.7%
Community	14.735	26.1%	-1.9%	-58.7%
College / University	14.832	29.7%	17.9%	-45.1%
Elementary / Pre School	15.664	11.6%	-26.4%	-59.1%
Jr / Sr High School	22.633	21.3%	-15.0%	-46.9%
Special / Vocational	1.100	-9.2%	-30.0%	-47.9%
Educational	54.228	19.6%	-12.2%	-50.0%
Courthouses	1.160	30.1%	35.2%	33.7%
Fire and Police Stations	2.687	23.2%	-0.6%	22.0%
Government Offices	9.634	33.1%	19.8%	-23.6%
Prisons	3.283	135.6%	1653.5%	744.7%
Government	16.764	43.2%	109.8%	53.4%
Industrial Labs / Labs / School Labs	1.613	-33.6%	-47.4%	187.3%
Manufacturing	53.572	-16.6%	-2.0%	100.9%
Warehouses	11.642	-35.8%	-53.2%	26.6%
Industrial	66.828	-21.2%	-14.4%	88.1%
Hospitals / Clinics	13.477	-14.8%	-76.6%	-36.3%
Medical Misc.	4.390	-49.8%	-36.4%	-19.4%
Nursing Homes	1.421	-50.5%	-43.6%	158.4%
Medical	19.289	-29.7%	-66.5%	-21.0%
Military	11.249	127.4%	75.9%	-72.3%
Hotels	6.820	6.0%	2.7%	57.5%
Retail Misc.	4.199	-8.5%	-36.5%	-7.3%
Shopping	9.159	-13.6%	31.7%	27.4%
Retail	20.178	-6.7%	1.8%	32.3%
NONRESIDENTIAL BUILDING	221.547	-2.8%	-10.3%	-8.1%
Multi-Family	60.192	-26.5%	-40.3%	-19.0%
Single-Family	114.081	-22.5%	-15.2%	-19.4%
RESIDENTIAL	174.273	-23.9%	-24.7%	-19.3%
NONRESIDENTIAL	367.719	6.2%	0.4%	-10.9%
GRAND TOTAL	541.992	-5.8%	-8.1%	-13.4%

Table 1 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks nonresidential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers. Table 6 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: ConstructConnect/Table: ConstructConnect.

“Top Ten” projects of the month

TABLE 7: ConstructConnect’s TOP 10 PROJECT STARTS IN JULY 2023

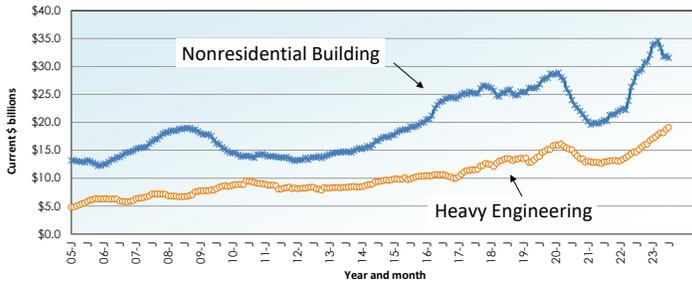
LOCATION (EAST TO WEST)	TYPE OF CONSTRUCTION	DESCRIPTION	SQUARE FEET 000S*	DOLLARS 000,000S
New York New York	Institutional	Manhattan Detention Site - 125 White Street Demolition and New Construction (3 structures) 125 White St NYC Department of Correction - East Elmhurst	1,300	\$1,600
New York	Residential	570 Washington Street Towers (2 structures; 36 stories; 2500 units) 570 Washington St Atlas Capital Group, LLC	2,500	\$1,000
Virginia Richmond	Commercial	CoStar HQ2 (1 structure; 26 stories) 600 Tredegar St CoStar Group	750	\$460
Florida Fort Lauderdale	Commercial	Bahia Mar Resort and Marina Redevelopment (6 structures; 1177 units) 801 Seabreeze Blvd Tate Capital Real Estate Solutions, LLC	1,973	\$1,000
Michigan Holland	Industrial	LG Energy Solutions / MI2 Holland Expansion (4 structures) 859 E 48th St LG Energy Solution	1,315	\$1,500
Indiana Westville	Institutional	Westville Correctional Facility (2 structures) 5501 S 1100 W Indiana Department of Corrections	716	\$375
Texas Port Isabel	Industrial	Rio Grande LNG (3 structures) Cameron County Rio Grande LNG, LLC	500	\$9,000
Fort Stockton	Civil/Engineering	Matterhorn Express Natural Gas Pipeline - Upton to Fort Bend (1 structure) Pecos County Devon Energy Corp.	*	\$3,000
Arizona Mesa	Commercial	Google Data Center - Project Red Hawk / Mesa (1 structure) 7154 E Elliot Rd Google Inc. - Mountain View	750	\$1,000
Glendale	Commercial	West Valley - New Desert Diamond Casino (9 structures) Maricopa County Tohono O’odham Nation	2737	\$450
TOTALS:			12,541	\$19,385

*A square footage measure does not apply for alteration, some forms of industrial (e.g., petrochemical) and most engineering/civil work.

Source: ConstructConnect/Table: ConstructConnect.

Trend graphs for 12 key categories

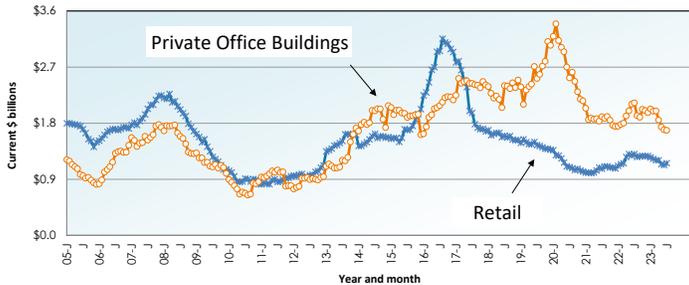
GRAPH 11: U.S. NONRESIDENTIAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



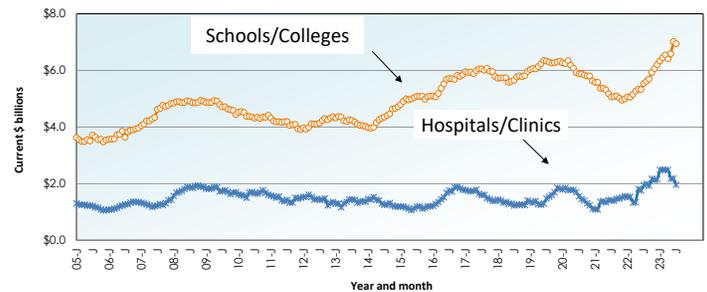
GRAPH 12: U.S. COMMERCIAL AND INSTITUTIONAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



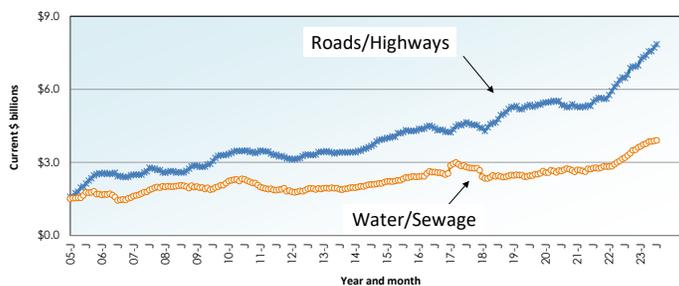
GRAPH 13: U.S. RETAIL AND PRIVATE OFFICE BUILDING CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



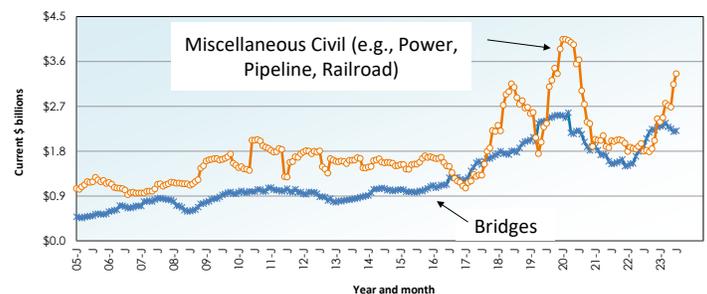
GRAPH 14: U.S. HOSPITAL/CLINIC AND SCHOOL/COLLEGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



GRAPH 15: U.S. ROAD/HIGHWAY AND WATER/SEWAGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



GRAPH 16: U.S. BRIDGES AND MISCELLANEOUS CIVIL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



The last data points in all the graphs on this page are for July, 2023.

Source: ConstructConnect/Charts: ConstructConnect.

Regional starts table

TABLE 8: U.S. YEAR-TO-DATE REGIONAL STARTS, NONRESIDENTIAL CONSTRUCTION* — ConstructConnect®

	Jan-Jul 2022	Jan-Jul 2023	% Change
Connecticut	\$1,751,844,037	\$3,048,002,613	74.0%
Maine	\$2,895,829,926	\$951,436,715	-67.1%
Massachusetts	\$5,875,091,333	\$7,606,155,632	29.5%
New Hampshire	\$587,006,536	\$800,002,048	36.3%
Rhode Island	\$916,188,660	\$419,407,937	-54.2%
Vermont	\$431,577,528	\$564,836,279	30.9%
Total New England	\$12,457,538,020	\$13,389,841,224	7.5%
New Jersey	\$5,846,796,280	\$3,846,292,717	-34.2%
New York	\$18,390,269,862	\$20,855,922,287	13.4%
Pennsylvania	\$11,395,201,042	\$10,950,454,070	-3.9%
Total Middle Atlantic	\$35,632,267,184	\$35,652,669,074	0.1%
TOTAL NORTHEAST	\$48,089,805,204	\$49,042,510,298	2.0%
Illinois	\$10,194,271,673	\$10,485,525,627	2.9%
Indiana	\$8,890,352,828	\$11,233,740,479	26.4%
Michigan	\$15,305,735,661	\$9,987,548,920	-34.7%
Ohio	\$8,255,724,598	\$13,751,087,602	66.6%
Wisconsin	\$7,166,106,214	\$5,469,696,535	-23.7%
Total East North Central	\$49,812,190,974	\$50,927,599,163	2.2%
Iowa	\$3,346,159,996	\$4,121,602,055	23.2%
Kansas	\$2,714,572,619	\$7,257,746,147	167.4%
Minnesota	\$5,977,388,090	\$5,201,462,768	-13.0%
Missouri	\$5,515,803,244	\$4,552,755,923	-17.5%
Nebraska	\$3,562,031,006	\$3,804,513,852	6.8%
North Dakota	\$2,723,056,266	\$2,365,495,658	-13.1%
South Dakota	\$2,860,442,298	\$2,862,459,438	0.1%
Total West North Central	\$26,699,453,519	\$30,166,035,841	13.0%
TOTAL MIDWEST	\$76,511,644,493	\$81,093,635,004	6.0%
Delaware	\$694,873,850	\$863,525,094	24.3%
District of Columbia	\$1,538,563,517	\$1,162,212,023	-24.5%
Florida	\$17,806,966,302	\$18,420,522,350	3.4%
Georgia	\$8,509,751,102	\$9,578,721,055	12.6%
Maryland	\$4,819,224,012	\$6,146,402,495	27.5%
North Carolina	\$13,151,061,827	\$10,568,678,082	-19.6%
South Carolina	\$4,874,626,570	\$5,168,963,751	6.0%
Virginia	\$6,825,751,359	\$9,587,213,548	40.5%
West Virginia	\$1,180,662,392	\$2,356,344,608	99.6%
Total South Atlantic	\$59,401,480,931	\$63,852,583,006	7.5%
Alabama	\$5,736,642,459	\$7,550,095,364	31.6%
Kentucky	\$9,763,910,067	\$3,777,613,238	-61.3%
Mississippi	\$1,761,386,122	\$2,376,424,229	34.9%
Tennessee	\$5,295,293,694	\$6,585,301,755	24.4%
Total East South Central	\$22,557,232,342	\$20,289,434,586	-10.1%
Arkansas	\$2,114,124,640	\$2,806,963,770	32.8%
Louisiana	\$15,394,896,304	\$4,771,301,160	-69.0%
Oklahoma	\$3,055,482,989	\$4,941,141,275	61.7%
Texas	\$55,919,992,112	\$64,221,266,348	14.8%
Total West South Central	\$76,484,496,045	\$76,740,672,553	0.3%
TOTAL SOUTH	\$158,443,209,318	\$160,882,690,145	1.5%
Arizona	\$4,453,756,615	\$8,029,032,273	80.3%
Colorado	\$4,474,444,722	\$5,370,356,989	20.0%
Idaho	\$1,539,196,063	\$1,599,156,256	3.9%
Montana	\$1,165,461,618	\$1,388,203,966	19.1%
Nevada	\$3,002,548,365	\$3,543,228,614	18.0%
New Mexico	\$1,773,750,384	\$2,151,435,708	21.3%
Utah	\$3,260,742,767	\$4,129,887,508	26.7%
Wyoming	\$1,927,215,169	\$3,860,848,827	100.3%
Total Mountain	\$21,597,115,703	\$30,072,150,141	39.2%
Alaska	\$1,016,534,954	\$4,234,647,960	316.6%
California	\$28,422,291,888	\$27,739,395,477	-2.4%
Hawaii	\$737,613,104	\$4,678,070,891	534.2%
Oregon	\$3,802,193,117	\$4,233,448,770	11.3%
Washington	\$7,556,597,484	\$5,742,104,393	-24.0%
Total Pacific	\$41,535,230,547	\$46,627,667,491	12.3%
TOTAL WEST	\$63,132,346,250	\$76,699,817,632	21.5%
TOTAL U.S.	\$346,177,005,265	\$367,718,653,079	6.2%

*Figures above are comprised of non-res building and engineering (i.e., residential is omitted).

Source: ConstructConnect/Table: ConstructConnect.

Detailed national table

TABLE 9: VALUE OF U.S. NATIONAL CONSTRUCTION STARTS — JULY 2023 — ConstructConnect®
BILLIONS OF CURRENT \$\$, NOT SEASONALLY ADJUSTED (NSA)

	Latest month actuals			Moving averages (placed in end month)						Year to Date	
	May 23	Jun 23	Jul 23	May 23	3-months Jun 23	Jul 23	May 23	12-months Jun 23	Jul 23	Jan-Jul, 2022	Jan-Jul, 2023
Single Family	20,093	19,739	15,914	17,669	19,016	18,582	16,390	16,230	15,992	147,137	114,081
month-over-month % change	16.7%	-1.8%	-19.4%	15.9%	7.6%	-2.3%	-0.8%	-1.0%	-1.5%		
year-over-year % change	-7.0%	-8.9%	-15.2%	-23.0%	-16.0%	-10.2%	-24.7%	-24.3%	-24.0%	-3.5%	-22.5%
Apartment	8,764	8,302	6,727	8,584	7,871	7,931	11,423	10,843	10,464	81,950	60,192
month-over-month % change	33.8%	-5.3%	-19.0%	2.0%	-8.3%	0.8%	-2.1%	-5.1%	-3.5%		
year-over-year % change	-24.9%	-45.6%	-40.3%	-29.2%	-42.3%	-37.7%	14.7%	3.4%	-2.7%	42.0%	-26.5%
TOTAL RESIDENTIAL	28,857	28,041	22,641	26,253	26,888	26,513	27,813	27,073	26,455	229,087	174,273
month-over-month % change	21.4%	-2.8%	-19.3%	11.0%	2.4%	-1.4%	-1.3%	-2.7%	-2.3%		
year-over-year % change	-13.3%	-24.1%	-24.7%	-25.2%	-25.9%	-20.7%	-12.3%	-15.2%	-16.8%	9.0%	-23.9%
Hotel/Motel	0,763	1,156	1,821	0,845	0,854	1,247	0,924	0,945	0,949	6,431	6,820
month-over-month % change	18.5%	51.5%	57.5%	-0.7%	1.1%	45.9%	0.3%	2.2%	0.4%		
year-over-year % change	4.0%	27.1%	2.7%	12.9%	17.4%	9.5%	35.1%	37.6%	22.7%	47.4%	6.0%
Retail/Shopping	1,131	1,095	1,395	1,515	1,518	1,207	1,143	1,128	1,156	10,595	9,159
month-over-month % change	-51.4%	-3.2%	27.4%	4.8%	0.2%	-20.5%	-5.1%	-1.4%	2.5%		
year-over-year % change	-39.3%	-14.5%	31.7%	-18.4%	-17.0%	-13.8%	-12.5%	-11.9%	-11.4%	35.4%	-13.6%
Parking Garages	0,297	0,104	0,208	0,191	0,187	0,203	0,182	0,182	0,182	1,257	1,131
month-over-month % change	87.4%	-65.0%	99.6%	56.9%	-2.3%	8.8%	8.7%	-0.2%	-0.2%		
year-over-year % change	142.6%	-3.7%	-2.0%	3.8%	-7.1%	37.6%	15.7%	19.3%	16.8%	8.6%	-10.0%
Amusement	0,533	0,798	0,695	0,968	0,871	0,676	0,762	0,784	0,762	4,333	5,670
month-over-month % change	-58.4%	49.8%	-12.9%	-3.2%	-10.0%	-22.4%	0.5%	2.8%	-2.8%		
year-over-year % change	9.8%	47.8%	-27.3%	83.0%	67.5%	2.3%	30.8%	37.6%	38.3%	1.3%	30.9%
Office	0,779	2,019	2,317	1,351	1,416	1,705	1,737	1,693	1,686	15,128	11,739
month-over-month % change	-46.2%	159.2%	14.7%	-9.3%	4.8%	20.4%	-6.1%	-2.5%	-0.4%		
year-over-year % change	-63.6%	-20.8%	-3.5%	-42.9%	-45.9%	-27.8%	-13.0%	-19.6%	-20.7%	43.1%	-22.4%
Governmental Offices	1,620	2,009	1,535	1,318	1,603	1,721	1,226	1,283	1,304	7,238	9,634
month-over-month % change	37.4%	24.0%	-23.6%	17.0%	21.6%	7.4%	2.8%	4.6%	1.6%		
year-over-year % change	32.6%	50.7%	19.8%	18.6%	30.4%	34.6%	22.7%	22.6%	31.9%	2.2%	33.1%
Laboratories	0,317	0,065	0,188	0,339	0,212	0,190	0,410	0,369	0,355	2,430	1,613
month-over-month % change	25.2%	-79.4%	187.3%	29.2%	-37.4%	-10.3%	1.7%	-10.0%	-3.8%		
year-over-year % change	35.6%	-88.3%	-47.4%	-20.1%	-58.1%	-50.3%	58.0%	27.3%	23.4%	69.9%	-33.6%
Warehouse	3,326	1,379	1,745	1,910	1,959	2,150	2,200	2,107	1,941	18,137	11,642
month-over-month % change	183.7%	-58.5%	26.6%	61.7%	2.6%	9.8%	0.8%	-4.2%	-7.8%		
year-over-year % change	6.5%	-44.9%	-53.2%	-29.1%	-32.6%	-31.0%	-7.4%	-11.5%	-22.5%	11.1%	-35.8%
Misc Commercial	0,608	3,368	0,885	1,141	1,711	1,620	1,149	1,342	1,315	8,812	11,661
month-over-month % change	-47.4%	453.6%	-73.7%	-42.2%	50.0%	-5.3%	-15.6%	16.7%	-2.0%		
year-over-year % change	-80.8%	218.4%	-26.7%	-30.4%	-2.8%	-10.5%	-31.2%	-12.8%	-17.9%	57.3%	32.3%
TOTAL COMMERCIAL	9,375	11,995	10,789	9,578	10,330	10,720	9,735	9,832	9,650	74,361	69,070
month-over-month % change	-2.5%	27.9%	-10.1%	1.3%	7.9%	3.8%	-3.1%	1.0%	-1.9%		
year-over-year % change	-28.3%	10.7%	-16.9%	-17.1%	-16.0%	-12.8%	-3.0%	-2.2%	-6.2%	26.8%	-7.1%
TOTAL INDUSTRIAL (Manufacturing)	6,149	6,111	12,278	5,272	5,574	8,179	9,114	8,682	8,662	64,254	53,572
month-over-month % change	37.8%	-0.6%	100.9%	30.7%	5.7%	46.7%	-10.7%	-4.7%	-0.2%		
year-over-year % change	-68.0%	-45.9%	-2.0%	-55.1%	-62.0%	-43.0%	65.2%	37.0%	21.1%	375.5%	-16.6%
Religious	0,098	0,111	0,119	0,106	0,106	0,109	0,093	0,093	0,098	0,555	0,692
month-over-month % change	-10.4%	12.6%	7.5%	9.8%	0.5%	2.9%	1.2%	0.3%	5.8%		
year-over-year % change	15.9%	3.3%	118.6%	14.0%	9.2%	33.1%	-2.8%	-3.7%	1.0%	-7.9%	24.7%
Hospitals/Clinics	2,535	1,269	0,609	1,710	1,718	1,538	2,177	2,179	1,958	15,826	13,477
month-over-month % change	87.8%	-49.9%	-36.3%	23.1%	0.5%	-10.5%	-12.5%	0.1%	-10.1%		
year-over-year % change	-59.6%	2.2%	-76.6%	42.6%	-41.4%	-58.0%	19.6%	23.9%	0.5%	41.7%	-14.8%
Nursing/Assisted Living	0,172	0,102	0,264	0,209	0,155	0,179	0,286	0,276	0,259	2,868	1,421
month-over-month % change	-10.4%	40.6%	158.4%	4.5%	-25.7%	15.4%	-3.5%	-6.8%	-6.1%		
year-over-year % change	-43.0%	-70.3%	-43.6%	-40.6%	-60.7%	-51.7%	-37.9%	-36.9%	-40.0%	-21.4%	-50.5%
Libraries/Museums	0,242	0,547	0,402	0,262	0,380	0,397	0,278	0,303	0,307	2,007	2,117
month-over-month % change	-31.0%	126.3%	-26.6%	6.8%	45.2%	4.5%	-0.1%	9.1%	1.1%		
year-over-year % change	-1.9%	125.1%	11.4%	-11.1%	69.1%	40.1%	-14.7%	-7.0%	-6.3%	20.3%	5.4%
Fire/Police/Courthouse/Prison	0,668	0,831	2,824	0,775	0,775	1,441	0,791	0,791	0,860	4,466	7,130
month-over-month % change	-19.1%	24.5%	239.6%	6.9%	0.0%	85.9%	0.0%	0.1%	21.3%		
year-over-year % change	0.4%	0.9%	254.6%	31.2%	9.8%	89.2%	24.7%	26.1%	51.7%	-3.2%	59.6%
Military	1,135	4,190	1,160	1,195	1,992	2,162	0,976	1,294	1,336	4,947	11,249
month-over-month % change	74.7%	269.3%	-72.3%	15.8%	66.7%	8.5%	0.7%	32.6%	3.2%		
year-over-year % change	7.5%	1023.1%	75.9%	-1.2%	63.5%	210.6%	16.1%	68.2%	71.9%	2.3%	127.4%
Schools/Colleges	9,620	13,001	6,502	7,589	9,549	9,708	6,583	7,019	6,943	45,337	54,228
month-over-month % change	59.7%	35.1%	-50.0%	23.0%	25.8%	1.7%	2.8%	6.6%	-1.1%		
year-over-year % change	28.5%	67.2%	-12.2%	7.6%	24.7%	28.5%	23.3%	31.8%	25.5%	16.7%	19.6%
Misc Medical	0,617	0,645	0,520	0,773	0,853	0,594	1,074	0,757	0,732	8,744	4,390
month-over-month % change	-52.4%	4.5%	-19.4%	10.3%	10.4%	-30.4%	-2.9%	-29.5%	-3.3%		
year-over-year % change	-38.4%	-85.5%	-36.4%	3.4%	-56.7%	-71.6%	58.8%	-23.3%	-27.6%	113.8%	-49.8%
TOTAL INSTITUTIONAL	15,087	20,697	12,599	12,617	15,528	16,127	12,268	12,713	12,594	84,752	94,706
month-over-month % change	39.7%	37.2%	-39.1%	19.5%	23.1%	3.9%	-1.4%	3.6%	-0.6%		
year-over-year % change	-11.8%	34.8%	-10.2%	-5.3%	2.2%	4.1%	20.2%	23.1%	17.0%	22.0%	11.7%
Misc Non Residential	0,701	0,597	0,554	0,612	0,641	0,617	0,663	0,659	0,633	4,590	4,199
month-over-month % change	12.4%	-14.7%	-7.3%	11.9%	4.7%	-3.6%	0.8%	-0.6%	-4.0%		
year-over-year % change	9.9%	-7.1%	-36.5%	-5.1%	0.3%	-14.0%	18.4%	15.3%	5.9%	22.4%	-8.5%
TOTAL NON-RES BUILDING	31,312	39,400	36,219	28,079	32,072	35,644	31,781	31,886	31,538	227,958	221,547
month-over-month % change	22.8%	25.8%	-8.1%	14.2%	14.2%	11.1%	-4.7%	0.3%	-1.1%		
year-over-year % change	-37.5%	3.3%	-10.3%	-24.7%	-25.1%	-16.9%	20.8%	16.9%	9.5%	56.8%	-2.8%
Airports	1,139	1,571	0,714	0,842	1,148	1,141	0,744	0,791	0,777	4,419	6,112
month-over-month % change	55.4%	37.9%	-54.6%	42.6%	36.2%	-0.6%	0.5%	6.3%	-1.8%		
year-over-year % change	4.3%	55.6%	-19.2%	26.3%	34.9%	14.7%	48.3%	55.3%	44.3%	39.8%	38.3%
Roads/Highways	9,789	9,881	9,324	9,790	10,076	9,664	7,574	7,716	7,847	53,143	63,503
month-over-month % change	-7.3%	0.9%	-5.6%	13.2%	2.9%	-4.1%	0.3%	1.9%	1.7%		
year-over-year % change	2.5%	20.8%	20.2%	11.5%	14.5%	13.8%	18.8%	18.9%	21.4%	23.8%	19.5%
Bridges	2,376	1,726	2,071	2,571	2,299	2,058	2,253	2,191	2,208	16,470	15,598
month-over-month % change	-15.0%	-27.4%	20.0%	11.6%	-10.6%	-10.5%	-1.5%	-2.7%	0.8%		
year-over-year % change	-15.0%	-30.0%	11.3%	-7.6%	-23.3%	-13.3%	25.6%	17.2%	16.2%	41.3%	-5.3%
Dams/Marine	0,559	0,589	0,761	1,283	1,230	0,636	0,976	0,990	0,994	4,160	6,672
month-over-month % change	-78.0%	5.2%	29.2%	-9.6%	-4.1%	-48.3%	-1.1%	1.5%	0.4%		
year-over-year % change	-19.3%	41.5%	7.3%	94.9%	158.5%	5.0%	28.1%	33.5%	31.8%	14.1%	60.4%
Water/Sewage	4,503	4,561	4,390	4,371	4,511	4,484	3,856	3,879	3,895	25,216	28,627
month-over-month % change	0.7%	1.3%	-3.8%	13.1%	3.2%	-0.6%	0.3%	0.6%	0.4%		
year-over-year % change	2.7%	6.3%	4.6%	13.6%	11.5%	4.5%	26.5%	23.8%	22.0%	21.4%	13.5%
Misc Civil (Power, etc.)	1,374	7,911	5,036	2,629	3,681	4,774	2,682	3,140	3,353	14,812	25,659
month-over-month % change	-21.9%	475.9%	-36.3%	-14.9%	40.0%	29.7%	-1.3%	17.1%	6.8%		
year-over-year % change	-23.2%	228.2%	103.3%	46.4%	71.1%	114.5%	41.				