

May 2023 (based on April 2023 Starts Stats)

# Construction Industry Snapshot



## April's Nonresidential Construction Starts -2% M/M, -20% Y/Y, & +16% Ytd

ConstructConnect announced today that Apr 2023's volume of construction starts, excluding residential work, was \$47.0 billion, a decrease of -2.1% versus Mar 2023's figure of \$48.0 billion.

A smaller pool of mega projects caused Apr 2023 nonres starts to be -20.4% vs Apr 2022. Grand total starts (i.e., including residential) in Apr 2023 were -5.7% m/m; -30.2% y/y; and -5.7% ytd.



Comparison	Commercial	Retail	Private Office	Hotel & Motel	Industrial	Institutional	Schools	Hospitals & Clinics	Heavy Engineering	Total Non-Residential
Apr 2023 vs Mar 2023	+5%	+119%	-27%	-50%	-18%	-13%	-18%	-10%	+4%	-2%
Jan-Apr 2023 vs Jan-Apr 2022	-10%	-16%	-39%	-1%	+27%	+18%	+10%	+61%	+27%	+16%
Jan-Apr 2022 vs Jan-Apr 2021	+24%	+53%	+34%	+49%	+199%	+4%	+17%	-35%	+22%	+27%

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## April's Nonresidential Construction Starts -2% M/M, -20% Y/Y, and +16% Ytd

### Much will Depend on Y/Y Comparison of Megas

ConstructConnect announced today that April 2023's volume of construction starts, excluding residential work, was \$47.0 billion (green shaded box, bottom of page 12), a decrease of -2.1% versus March 2023's figure of \$48.0 billion (originally reported as \$47.6 billion).

While April 2023's nonresidential total took only a small step back on a month-to-month basis, it undertook a more significant retreat relative to April of last year. On a year-over-year basis, the decline was -20.4%. April of this year was aided by go-aheads for two mega-sized projects with a combined estimated value of \$3.8 billion, but that was a far cry from the four nonresidential mega projects that broke ground in April 2022 for a summed value of \$14.4 billion.

April 2023's two 'megas' were an EV battery plant for Stellantis and Samsung in Indiana and a new marine lock in Sault Sainte Marie, Michigan, being built by the Army Corp of Engineers. The largest project initiation in April of last year was an LNG exporting facility in Louisiana for \$10.0 billion. Comparing both months when their ultra-large projects are set aside reveals that April 2023's total non-mega nonresidential starts were only -3.4% relative to April 2022.

Last year's exceptional strength in mega project starts will continue to give a downward bias to year-over-year comparisons in coming months. For example, this will be seen again a month from now, since May 2022 harbored four mega projects for \$20.0 billion. Worth noting, though, is that there are still large projects on the scene, even if they don't quite measure up to the billion-dollar mega project benchmark. The lowest estimated value for the projects appearing in April 2023's Top 10 list (Table 7, page 9) is \$450 million, a figure not to be taken lightly.

On a year-to-date basis, the latest months' total nonresidential starts were +15.6% compared with January to April of last year. (Q1 this year had more megas than Q1 last year.)

To complete the overview picture, the GRAND TOTAL dollar volume (i.e., adding residential to nonresidential activity) of starts in April 2023 was -5.7% m/m, -30.2% y/y, and -5.7% ytd. Residential starts, in particular, have been pulling the Grand Total down year to date.

### TTM Starts Surrender Some of their Sparkle

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 April, on a month-to-month basis, were -3.1%, backtracking from +0.1% in March, and straying further off the path from February, -0.5%.

On a year-over-year basis, Grand Total TTM starts in April remained ahead by a double-digit percentage change, +11.4%, but they lost sparkle compared with March's +19.1% and February's +19.3%.

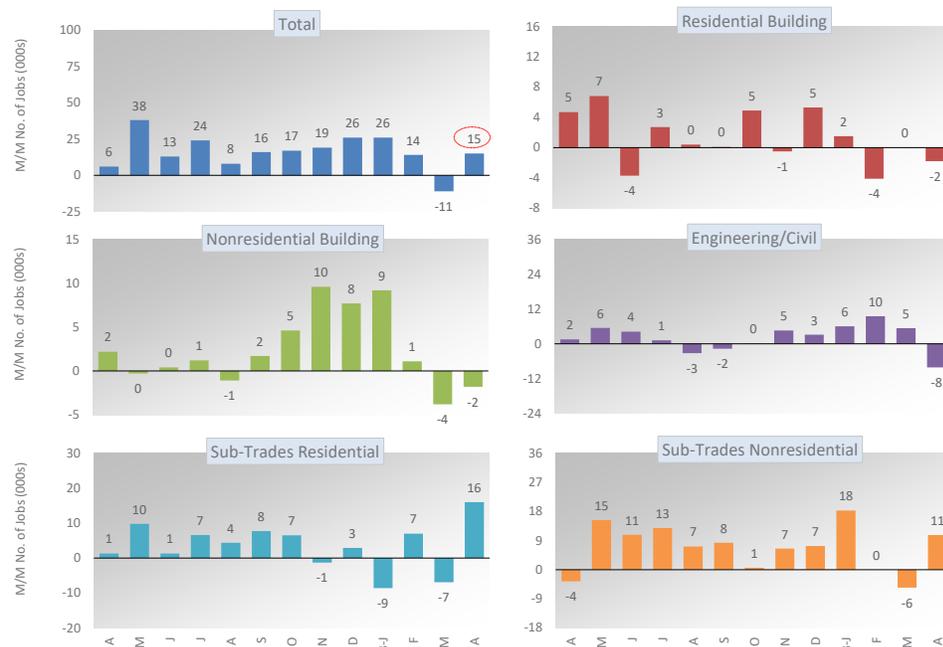
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TABLE 1: VALUE OF UNITED STATES NONRESIDENTIAL CONSTRUCTION STARTS — APRIL 2023 (ConstructConnect®)

	Jan-Apr 2023 (\$ billions)	% Change Jan-Apr 23 vs Jan-Apr 22	% Change Apr 23 vs Apr 22	% Change Apr 23 vs Mar 23
Hotel/Motel	2.988	-0.9%	3.5%	-49.7%
Retail/Shopping	5.380	-15.8%	-1.9%	119.3%
Parking Garage	0.513	-37.0%	-59.6%	28.2%
Amusement	3.486	48.3%	122.8%	10.3%
Private Office	4.926	-38.7%	-67.1%	-27.0%
Government Office	4.619	35.8%	10.8%	7.0%
Laboratory	1.149	-10.3%	-69.1%	-61.7%
Warehouse	4.497	-48.8%	-62.8%	-1.8%
Miscellaneous Commercial *	6.049	78.8%	9.5%	29.9%
<b>COMMERCIAL (big subset)</b>	<b>33.607</b>	<b>-10.3%</b>	<b>-30.4%</b>	<b>4.9%</b>
<b>INDUSTRIAL (Manufacturing)</b>	<b>26.883</b>	<b>26.8%</b>	<b>-69.9%</b>	<b>-17.9%</b>
Religious	0.316	2.2%	0.7%	20.8%
Hospital/Clinic	7.810	61.0%	-16.1%	-10.0%
Nursing/Assisted Living	0.778	-55.7%	-64.5%	6.7%
Library/Museum	0.883	-23.7%	89.4%	80.7%
Fire/Police/Courthouse/Prison	3.014	38.2%	52.5%	3.5%
Military	4.901	71.4%	-69.7%	-65.1%
School/College	24.885	9.8%	-23.4%	-17.9%
Miscellaneous Medical	2.488	0.4%	163.4%	207.0%
<b>INSTITUTIONAL</b>	<b>45.074</b>	<b>17.8%</b>	<b>-20.3%</b>	<b>-13.4%</b>
Miscellaneous Non-residential	2.232	-8.4%	4.5%	36.2%
<b>NONRESIDENTIAL BUILDING</b>	<b>107.796</b>	<b>8.5%</b>	<b>-39.8%</b>	<b>-7.3%</b>
Airport	2.710	88.9%	63.9%	9.9%
Road/Highway	34.461	24.6%	19.9%	15.7%
Bridge	9.472	1.3%	-24.6%	10.3%
Dam/Marine	4.735	102.2%	708.4%	269.8%
Water/Sewage	15.148	22.7%	31.1%	9.2%
Miscellaneous Civil (power, pipelines, etc.)	11.402	40.1%	-22.4%	-63.8%
<b>HEAVY ENGINEERING (Civil)</b>	<b>77.927</b>	<b>27.2%</b>	<b>20.7%</b>	<b>4.2%</b>
<b>TOTAL NONRESIDENTIAL</b>	<b>185.723</b>	<b>15.6%</b>	<b>-20.4%</b>	<b>-2.1%</b>

\* Includes transportation terminals and sports arenas.

GRAPH 1: CHANGE IN LEVEL OF U.S. CONSTRUCTION EMPLOYMENT, MONTH TO MONTH (M/M) — TOTAL & BY CATEGORIES — APRIL 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-April 2023's average increase in construction employment has been +11,000 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

### Nonresidential Now Driving PIP Construction Stats

'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 nonresidential, 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 succeeded in claiming 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 negative impact on housing demand. True to historical form, residential's year-to-date share of total PIP dollars through March of this year has retreated to 45.6%. (Through March of last year, its share was 52.2%.)

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 March of this year has been +4.3%, with residential singing a sad song at -8.8%, and nonresidential chirping merrily, at +18.6%.

Nonresidential's leading sub-sector for year-to-date percentage change (2023/2022) has been manufacturing, +57.5%. Lodging has also experienced an out-sized jump, +38.8%. 'Commercial' (which is largely retail), 'highway and street', 'water delivery and treatment', and 'conservation and development' have all managed year-to-date climbs of one-fifth (+20%) or more.

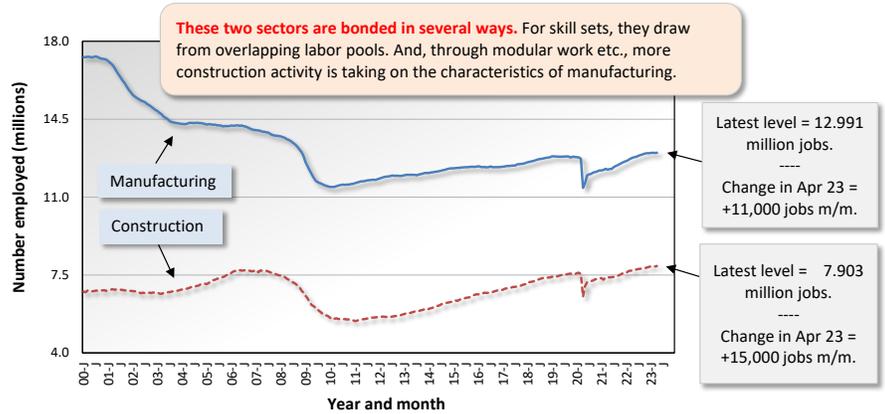
PIP numbers, being more spread out, have smaller peak-over-trough percent-change amplitudes than the 'starts' series. As an additional valuable service for clients and powered by its extensive 'starts' database, ConstructConnect, in partnership with Oxford Economics, a world-leader in econometric modeling, 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 +15,000 in April

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 April's +253,000 economy-wide number-of-jobs advance, the figure for construction would have needed to be +13,000. Impressively, that target was beaten by an actual figure of +15,000. Additional staffing at the sub-trade level accounted for the strength. Graph 1 shows sub-contractors on residential work adding +16,000 workers; on nonresidential, +11,000.

Construction's not seasonally adjusted (NSA) unemployment rate in April was 4.1%, down considerably

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

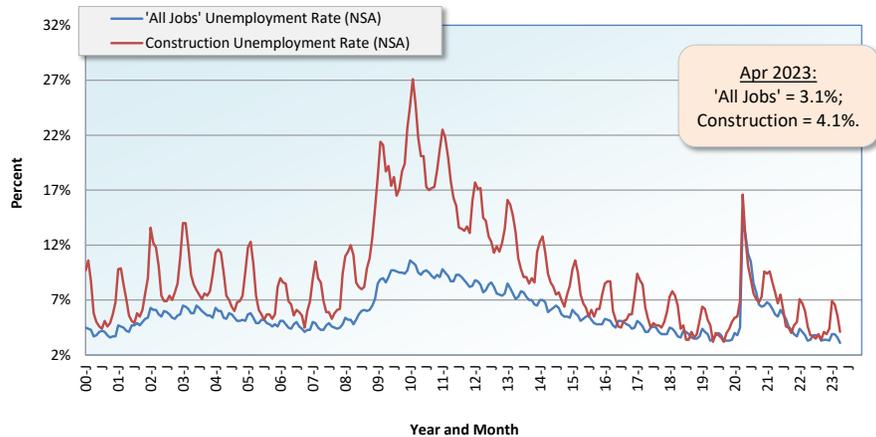


The not seasonally adjusted (NSA) unemployment rate for construction is presently 4.1%. In April 2020, at its worst, it was 16.6%. Manufacturing's current NSA jobless rate is a mere 2.8%. April 2020's extreme was 13.2%. In early 2000, the ratio of construction to manufacturing jobs was 0.4 to 1.0. Now, it's 0.6 to 1.0.

Latest data points are for April, 2023.

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

GRAPH 3: U.S. UNEMPLOYMENT RATES: HEADLINE (I.E., 'ALL JOBS') & CONSTRUCTION (NOT SEASONALLY ADJUSTED (NSA))

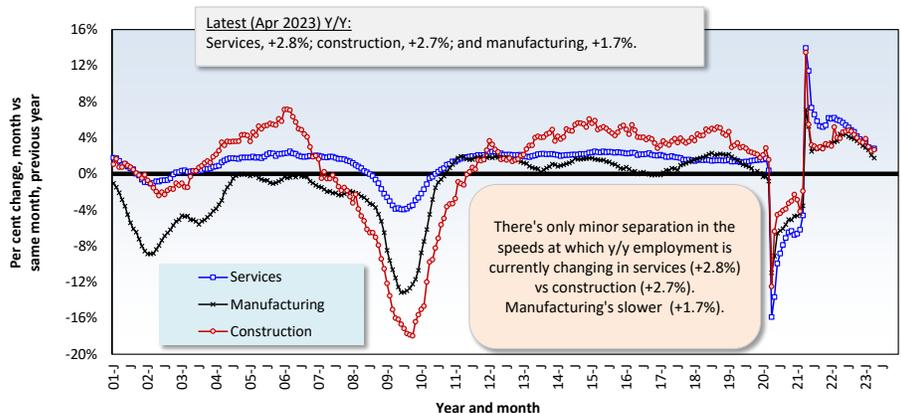


There used to be wide seasonal discrepancies between the unemployment rates for 'all jobs' and for construction, indicating that a career in the latter was more precarious. In recent times, though, the gap has largely disappeared, which should be a help in recruiting drives to sign up more onsite workers.

Current through April, 2023.

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

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



The latest data points are for April, 2023.

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

Continued on page 4

Continued from page 3

from March's 5.6%, and a half percentage point under year-ago April's 4.6%. With Spring underway, 'seasonality' (i.e., more activity due to warmer weather) is now working to put a check on construction's unemployment rate (see the 'seasonal' pattern in Graph 3.)

April's NSA U rate for construction of 4.1% was higher than the nation's 'all jobs' figure of 3.1%. It also exceeded manufacturing's 2.8%. 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. Manufacturing's performance with respect to jobs creation in April was +11,000 jobs (see Graph 2).

In April, U.S. total employment was +2.6% year over year. 'Private services-providing' employment was ahead by a little more, +2.8% y/y. Construction's jobs count was +2.7% y/y and manufacturing's, +1.7% y/y. Setting the fastest year-over-year pace for jobs growth among all industrial sectors was 'leisure and hospitality', +5.9% (see Graph 5).

In other segments of the economy with close ties to construction, the latest y/y percentage changes in employment were as follows: architectural and engineering design services, +5.1%; cement and concrete product manufacturing, +4.6%; machinery and equipment rental and leasing, +3.6%; real estate, +2.6%; oil and gas exploration and development, -1.5%; and building materials and supplies dealers, -4.2%. The latter is the fallout from lackluster housing starts.

Design services work at architectural and engineering firms is a vital early-stage cog in the entire construction process that eventually leads to activity in the field. Therefore, the +5.1% y/y gain for jobs in the sector sends an upbeat message. Also worth mentioning is that the latest Architecture Billings Index (ABI) from the American Institute of Architects (AIA) took an encouraging turn. After sitting below 50.0 for five months in a row, it shifted higher to 50.4 in March. Below 50.0, revenues for design firms are shrinking; above it, they're expanding.

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

The -2.1% month-to-month (m/m) dip in the dollar volume of April's total nonresidential starts resulted from drops in industrial (-17.9%) and institutional (-13.4%) that were not quite counterbalanced by gains in commercial (+4.9%) and engineering (+4.2%).

The -20.4% contraction in total nonresidential starts in April 2023 versus April 2022 (y/y) was caused by a sharp pullback in industrial work (-69.9%), along with less severe minuses in commercial (-30.4%) and institutional (-20.3%), while engineering scored a pickup (+20.7%).

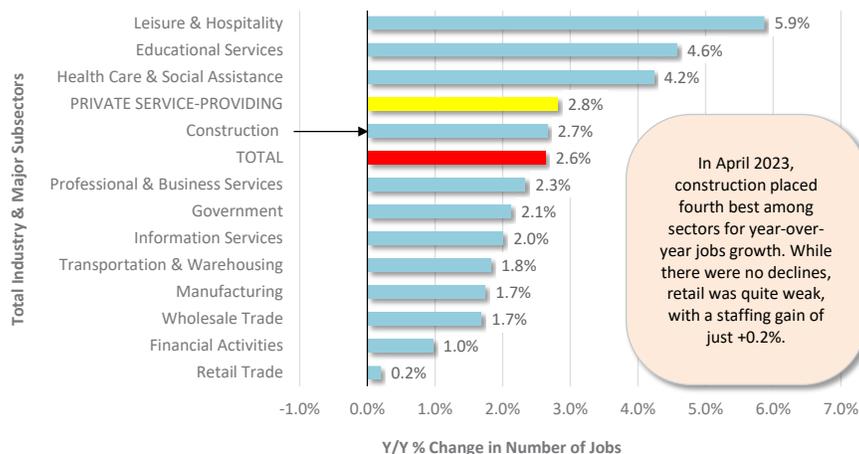
On a year-to-date (ytd) basis through the first four months of 2023, total nonresidential starts were ahead of 2022's January-April comparable dollar volume figure by +15.6%. A decline in the commercial sub-category (-10.3%) was more than offset by sizable bumps in heavy engineering (+27.2%), industrial (+26.8%) and institutional (+17.8%).

Graph 6 shines a spotlight on the remarkable manner in which manufacturing (a.k.a. industrial) construction starts have behaved over the past year and a half. On a 12-month moving average basis, they ascended with a rapidity and to a height never seen before. In April of this year, however, the previously soaring curve finally lost steam, and a setback was recorded.

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 four months of 2023, their shares of total have been 18.6% and 13.4% respectively, adding to 32.0%.

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

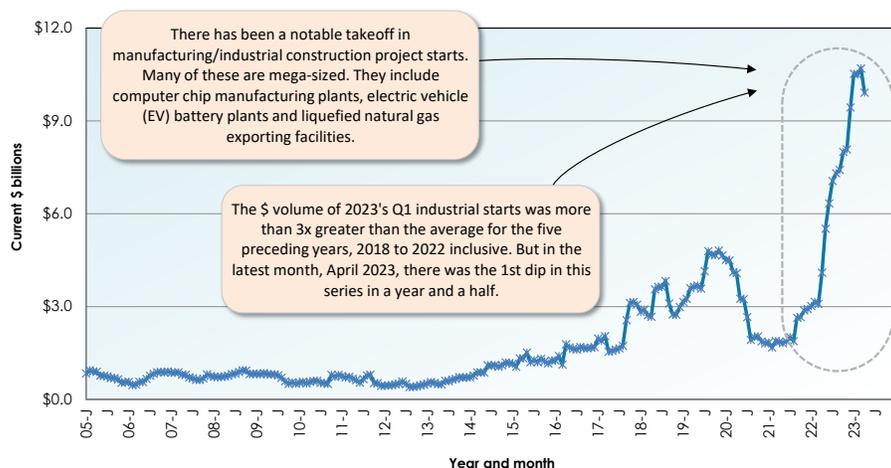


In April 2023, construction placed fourth best among sectors for year-over-year jobs growth. While there were no declines, retail was quite weak, with a staffing gain of just +0.2%.

April 2023's y/y changes in employment within the pandemic's initially hardest-hit sector, 'leisure & hospitality', were: 'hotels/motels', +6.7%; 'amusements/gambling', +8.6%; and 'restaurants & bars', +5.4%.

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

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



The last data point is for April 2023.

Data source: ConstructConnect. Graph: ConstructConnect.

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

	Jan-Apr 2023 (\$ billions)	% Change vs Jan-Apr 2022
Sports Stadiums/Convention Centers	\$1.512	-25.5%
Transportation Terminals	\$4.537	235.5%
Courthouses	\$0.692	44.1%
Police Stations & Fire Halls	\$1.325	39.1%
Prisons	\$0.997	33.3%
Pre-School/Elementary	\$7.702	5.8%
Junior & Senior High Schools	\$9.890	18.3%
<b>K-12 (sum of above two categories)</b>	<b>\$17.593</b>	<b>12.5%</b>
Special & Vocational Schools	\$0.361	-31.9%
Colleges & Universities	\$6.931	6.7%
Electric Power Infrastructure	\$3.837	5.7%

Source: ConstructConnect/Table: ConstructConnect.

Continued from page 4

The three percentage-change metrics for street starts in April were +15.7% m/m, +19.9% y/y and +24.6% ytd. For school starts, the results in the latest month were -17.9% m/m and -23.4% y/y, but +9.8% ytd. Further with respect to educational facility starts, junior and senior high schools have set the hottest year-to-date percentage change pace, +18.3% (see Table 2).

Important beyond roads within the engineering sub-category are 'water/sewage' and 'bridge' starts. The results for the former in April were +9.2% m/m, +31.1% y/y, and +22.7% ytd. For the latter, they were +10.3% m/m, -24.6% y/y, and +1.3% ytd.

April's three metrics for 'miscellaneous civil' starts, a designation which includes power and railroad components, were -63.8% m/m and -22.4% y/y, but an impressive +40.1% 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 April were +40.0% m/m, +8.6% y/y, and +21.9% ytd. The dollar volume of hospital project starts on their own year-to-date has been +61.0% (see Top 10 lists, current and previous reports).

Among commercial sub-categories in April, only 'amusement' (+48.3%), 'government offices' (+35.8%) and 'miscellaneous' (+78.8%) have shown positive movement year to date in 2023. 'Transportation terminal' starts (Table 2) within miscellaneous are +235.5%, thanks to final phase work at Denver's International Airport (Top 10 list, Table 7, page 9).

Groundbreakings on 'warehouses' (-48.8%), 'private office buildings' (-38.7%) and 'retail/shopping' projects (-15.8%) have all failed to make headway to date in 2023.

**Moderation in JOLTS Results**

The declines in position offerings and sign-ups from the Jobs Openings and Labor Turnover Survey (JOLTS) report are more clearly apparent for 'all jobs' than for construction work. Nonetheless, and as is shown in Graphs 7 and 8, moderations in the 'openings' and 'hires' levels and rates are creeping into the construction sector as well. 'Openings' are displaying volatility while edging lower. 'Hires' have dropped to a slightly lower plain and are crawling sideways.

**Cracks Appearing in the Trend Lines**

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 in the ending month.

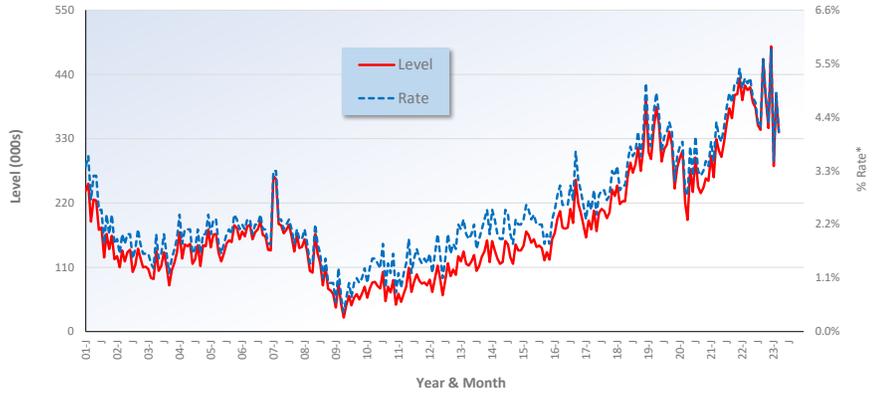
Graph 11 delivers the key takeaway. The heavy engineering trend line is continuing to show an upwards slant. The nonresidential buildings trend line, though, now features a downwards bend at its end. The fault line runs mainly through commercial starts, with neither 'private office buildings' nor 'retail' able to provide much support. Within engineering, the trend line slopes for 'roads/highways', 'water/sewage' and 'miscellaneous' are all ticking up in fine fashion.

**Cost Focus Shifts to Earnings Gains**

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.

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

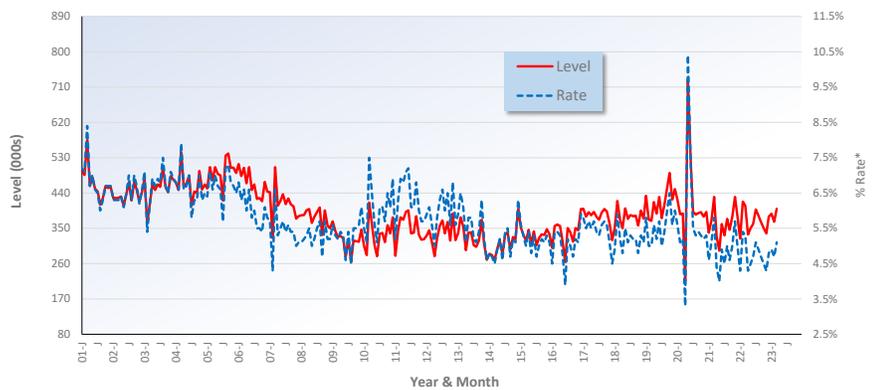


The recent deterioration in 'openings' as both a level and a rate is more apparent in 'all jobs' than in construction. In the former, the year-over-year drop in the level has been -20.3%; in the latter, it has been -17.4%.

\*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 March 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 meandering sideways for a significant stretch of time now. The rate, more than the level, has been moving along in 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 March 2023. ... JOLTS = Job Openings and Labor Turnover Survey.

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

Continued from page 5

From April 2023's Table B-3 (including bosses), y/y all-jobs earnings were +4.4% hourly and +3.8% weekly. Compensation hikes for construction workers, as a subset of 'all 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 +5.0% hourly and +4.0% weekly. Once again, though, construction workers were justified in having ear-to-ear grins. Their wallets and purses swelled to the tune of +6.7% hourly and +7.0% weekly.

It's good news that 'purchasing power', which looks at wage gains versus inflation, is now being maintained since the y/y increase in CPI-U has fallen to hover around +5.0%.

### Bid Price Index Settles Down a Bit

April 2023's y/y results for three building related BLS Producer Price Index (PPI) series were: (A) 'construction materials special index', -2.9% (less negative than March's -4.0%); (B) 'inputs to new construction index, excluding capital investment, labor, and imports', -3.4% (hardly deviating from the previous month's -3.3%); and (C) 'final demand construction', designed to capture bid prices, +11.2% (a noteworthy downgrade from the prior period's +15.6%).

(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. There are only a few materials currently showing y/y price increases: cement, +13.7%; ready-mix concrete, +12.5%; and gypsum products, +10.2%. There are far more items with negative y/y price performances: softwood lumber, -38.9%; diesel fuel, -27.1%; asphalt, -23.8%; aluminum mill shapes, -18.1%; hot rolled steel bars, plates, and structural shapes, -7.9%; and copper wire and cable, -5.8%. Also, there's an 'inputs to highways and streets' index, -0.2%.

The value of construction starts each month is derived from ConstructConnect's database of all active construction projects in the U.S. ConstructConnect's 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.

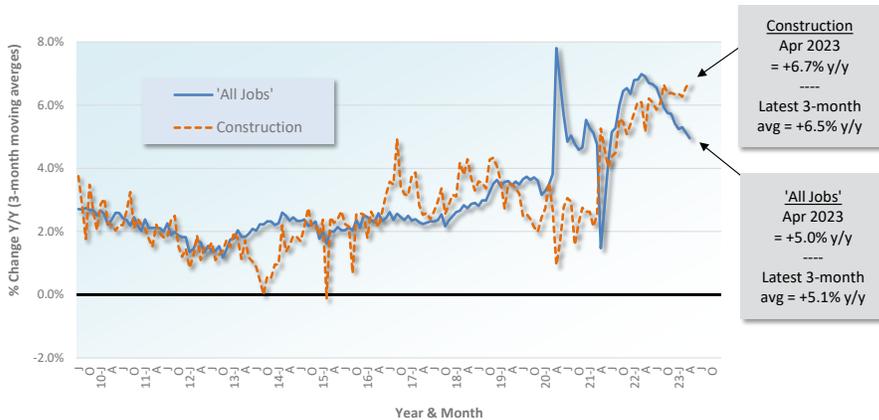
### April 2023's 'Grand Total' Starts -5.7% Ytd

From Table 6 on page 8 (and also from Table 9 on page 12) of this report, ConstructConnect's total residential starts in April 2023 were -12.8% m/m, -45.1% y/y, and -32.4% ytd. Multi-family starts were -46.2% m/m, -65.8% y/y, and -30.5% ytd. Single-family starts were +6.3 m/m, -33.4% y/y, and -33.4% ytd.

Including home building with all nonresidential categories, **Grand Total** starts in April 2023 were -5.7% m/m, -30.2% y/y, and -5.7% ytd (not a typo; m/m and ytd the same at -5.7%).

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

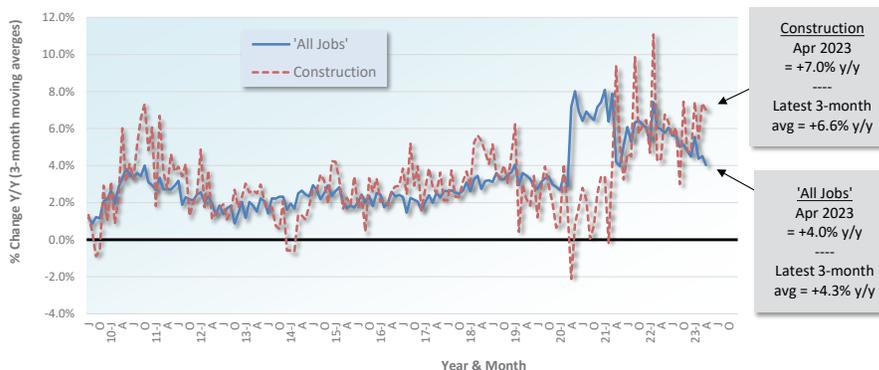


Y/y advances in hrly wages for 'all jobs' are in line with inflation (+5.0% for 'all items'; +5.6% for 'core'); construction, though, is charging ahead faster. Avg y/y hrly wage gains for construction workers, 2010-2019, were +2.3%; for 'all jobs', +2.4%.

From 'Production Workers and Non-supervisory Personnel' Table (B8). The latest data points are for April, 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 faltering somewhat as it contends with higher interest rates. But with Spring underway, 'seasonality' works to the benefit of construction activity. Currently, the NSA unemployment rate in construction is 4.1%; the 'all jobs' figure is 3.1%.

From 'Production Workers and Non-supervisory Personnel' Table (B8). The latest data points are for April, 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.

### 2023's Major Challenge to Come from Financing Side

Following in the footsteps of the unprecedented materials and labor challenges of 2020-2022, it is now evident in 2023 that businesses will face a fresh wave of extraordinary capital challenges stemming from the delayed effects of various COVID-related fiscal and monetary measures. As central banks such as the Federal Reserve in the US and the Bank of Canada gradually increased interest rates from 2022 onward to control inflation, unintended consequences emerged, including the diminishing present value of banks' outstanding loans accumulated since 2010.

Consequently, banks currently hold significant amounts of loans that, if sold today, are worth less than their original face value, or 'par' value. In this scenario, the most prudent course of action for banks may be to wait, collect principal and interest on these subpar loans, and redirect that capital into today's higher interest rate environment.

However, this wait-and-see approach is not always feasible, as banks may be compelled to raise capital to fulfill regulatory requirements or cover losses from bad loans. While selling subpar loans can generate cash to cover capital requirements, it also forces banks to recognize losses on these loans, akin to how shareholders recognize losses only upon selling their shares. Consequently, banks have become more cautious about lending to the construction industry.

During the height of the Great Recession, nearly a quarter of all real estate construction and development borrowers failed to meet their obligations. In response, beginning in late 2008 banks scaled back their overall level of loans in the commercial real estate (CRE) sector. It would not be until early 2016 that CRE loan levels would once again reach their pre-recessionary levels.

Currently, banks are confronted with an economy that faces the risk of recession, low office occupancy rates, and declining asset prices for vehicles and homes. These factors provide compelling reasons for banks to exercise extreme caution in extending capital to borrowers.

When combined with the underlying risk of selling old loans at a loss, it becomes evident why lending standards have tightened and why capital management and capital access will be the growing focus of construction managers for the foreseeable future. Business leaders will need to be just as creative in solving their forthcoming capital challenges as they were in solving their material and labor problems.

*Michael Guckes, Senior Economist*

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

	Jan-Apr 2023	% Change vs Jan-Apr 2022
1 Texas	\$32,681,090,053	53.3%
2 California	\$13,612,455,782	20.0%
3 New York	\$10,565,139,606	22.4%
4 Florida	\$10,241,153,134	12.7%
5 Ohio	\$7,961,061,148	95.1%
6 Indiana	\$7,195,784,493	87.1%
7 North Carolina	\$5,987,770,569	-12.6%
8 Pennsylvania	\$5,559,438,918	43.4%
9 Georgia	\$4,988,424,561	33.3%
10 Alabama	\$4,853,483,130	124.4%
11 Michigan	\$4,792,154,251	-9.0%
12 Illinois	\$4,784,917,590	-8.0%
13 Virginia	\$3,880,508,383	7.8%
14 Alaska	\$3,722,441,485	1,011.0%
15 Colorado	\$3,664,101,480	46.4%
16 Maryland	\$3,561,680,832	16.0%
17 Massachusetts	\$3,221,084,051	4.2%
18 Arizona	\$3,029,677,128	57.4%
19 Washington	\$2,943,321,682	15.4%
20 Tennessee	\$2,754,572,401	-13.6%

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-Apr 2023	% Change vs Jan-Apr 2022
1 Texas	\$22,018,784,921	63.3%
2 New York	\$6,753,602,203	62.8%
3 California	\$6,733,294,502	-7.9%
4 Florida	\$5,794,825,714	-1.7%
5 Ohio	\$5,535,355,100	127.0%
6 Indiana	\$5,361,473,734	188.0%
7 North Carolina	\$4,128,996,809	-7.3%
8 Alabama	\$3,774,671,740	171.6%
9 Georgia	\$3,228,374,877	24.6%
10 Pennsylvania	\$2,661,260,456	34.8%
11 Maryland	\$2,529,607,485	9.8%
12 Colorado	\$2,312,479,910	82.6%
13 Virginia	\$2,297,539,039	16.9%
14 Illinois	\$2,276,142,626	-20.1%
15 Massachusetts	\$2,148,885,048	-11.9%
16 Tennessee	\$2,114,920,998	-5.3%
17 Arizona	\$2,091,150,184	54.6%
18 Washington	\$1,912,879,512	49.3%
19 Michigan	\$1,608,754,036	-43.3%
20 South Carolina	\$1,578,462,848	3.9%

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

	Jan-Apr 2023	% Change vs Jan-Apr 2022
1 Texas	\$10,662,305,132	36.0%
2 California	\$6,879,161,280	70.5%
3 Florida	\$4,446,327,420	39.3%
4 New York	\$3,811,537,403	-14.9%
5 Alaska	\$3,445,257,158	1,409.5%
6 Michigan	\$3,183,400,215	31.2%
7 Pennsylvania	\$2,898,178,462	52.3%
8 Illinois	\$2,508,774,964	6.5%
9 Ohio	\$2,425,706,048	47.6%
10 North Carolina	\$1,858,773,760	-22.6%
11 Indiana	\$1,834,310,759	-7.6%
12 Georgia	\$1,760,049,684	52.8%
13 Wisconsin	\$1,587,324,545	22.8%
14 Virginia	\$1,582,969,344	-3.1%
15 Iowa	\$1,513,873,598	43.5%
16 Colorado	\$1,351,621,570	9.3%
17 Missouri	\$1,272,071,486	-19.7%
18 Minnesota	\$1,254,446,027	-15.7%
19 North Dakota	\$1,251,827,848	84.0%
20 Oklahoma	\$1,223,531,112	62.3%

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 — APRIL 2023  
ARRANGED TO MATCH THE ALPHABETICAL CATEGORY DROP-DOWN MENUS IN INSIGHT

	Jan-Apr 2023 (\$ billions)	% Change Jan-Apr 23 vs Jan-Apr 22	% Change Apr 23 vs Apr 22	% Change Apr 23 vs Mar 23
<b>Summary</b>				
CIVIL	77.927	27.2%	20.7%	4.2%
NONRESIDENTIAL BUILDING	107.796	8.5%	-39.8%	-7.3%
RESIDENTIAL	87.076	-32.4%	-45.1%	-12.8%
<b>GRAND TOTAL</b>	<b>272.798</b>	<b>-5.7%</b>	<b>-30.2%</b>	<b>-5.7%</b>
<b>Verticals</b>				
Airport	2.710	88.9%	63.9%	9.9%
All Other Civil	7.565	67.9%	-38.6%	-74.4%
Bridges	9.472	1.3%	-24.6%	10.3%
Dams / Canals / Marine Work	4.735	102.2%	708.4%	269.8%
Power Infrastructure	3.837	5.7%	29.5%	-1.4%
Roads	34.461	24.6%	19.9%	15.7%
Water and Sewage Treatment	15.148	22.7%	31.1%	9.2%
<b>CIVIL</b>	<b>77.927</b>	<b>27.2%</b>	<b>20.7%</b>	<b>4.2%</b>
Offices (private)	4.926	-38.7%	-67.1%	-27.0%
Parking Garages	0.513	-37.0%	-59.6%	28.2%
Transportation Terminals	4.537	235.5%	120.4%	68.4%
<b>Commercial (small subset)</b>	<b>9.977</b>	<b>-2.3%</b>	<b>-47.5%</b>	<b>0.1%</b>
Amusement	3.486	48.3%	122.8%	10.3%
Libraries / Museums	0.883	-23.7%	89.4%	80.7%
Religious	0.316	2.2%	0.7%	20.8%
Sports Arenas / Convention Centers	1.512	-25.5%	-57.1%	-23.9%
<b>Community</b>	<b>6.197</b>	<b>6.0%</b>	<b>29.9%</b>	<b>11.3%</b>
College / University	6.931	6.7%	-42.3%	-23.4%
Elementary / Pre School	7.702	5.8%	-19.2%	-9.4%
Jr / Sr High School	9.890	18.3%	-7.9%	-22.2%
Special / Vocational	0.361	-31.9%	-33.4%	66.6%
<b>Educational</b>	<b>24.885</b>	<b>9.8%</b>	<b>-23.4%</b>	<b>-17.9%</b>
Courthouses	0.692	44.1%	349.9%	61.8%
Fire and Police Stations	1.325	39.1%	9.1%	-29.2%
Government Offices	4.619	35.8%	10.8%	7.0%
Prisons	0.997	33.3%	29.0%	17.9%
<b>Government</b>	<b>7.632</b>	<b>36.7%</b>	<b>25.7%</b>	<b>5.5%</b>
Industrial Labs / Labs / School Labs	1.149	-10.3%	-69.1%	-61.7%
Manufacturing	26.883	26.8%	-69.9%	-17.9%
Warehouses	4.497	-48.8%	-62.8%	-1.8%
<b>Industrial</b>	<b>32.529</b>	<b>4.1%</b>	<b>-68.6%</b>	<b>-18.9%</b>
Hospitals / Clinics	7.810	61.0%	-16.1%	-10.0%
Medical Misc.	2.488	0.4%	163.4%	207.0%
Nursing Homes	0.778	-55.7%	-64.5%	6.7%
<b>Medical</b>	<b>11.076</b>	<b>21.9%</b>	<b>8.6%</b>	<b>40.0%</b>
<b>Military</b>	<b>4.901</b>	<b>71.4%</b>	<b>-69.7%</b>	<b>-65.1%</b>
Hotels	2.988	-0.9%	3.5%	-49.7%
Retail Misc.	2.232	-8.4%	4.5%	36.2%
Shopping	5.380	-15.8%	-1.9%	119.3%
<b>Retail</b>	<b>10.600</b>	<b>-10.5%</b>	<b>0.1%</b>	<b>33.0%</b>
<b>NONRESIDENTIAL BUILDING</b>	<b>107.796</b>	<b>8.5%</b>	<b>-39.8%</b>	<b>-7.3%</b>
Multi-Family	30.389	-30.5%	-65.8%	-46.2%
Single-Family	56.687	-33.4%	-33.4%	6.3%
<b>RESIDENTIAL</b>	<b>87.076</b>	<b>-32.4%</b>	<b>-45.1%</b>	<b>-12.8%</b>
<b>NONRESIDENTIAL</b>	<b>185.723</b>	<b>15.6%</b>	<b>-20.4%</b>	<b>-2.1%</b>
<b>GRAND TOTAL</b>	<b>272.798</b>	<b>-5.7%</b>	<b>-30.2%</b>	<b>-5.7%</b>

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 APRIL 2023

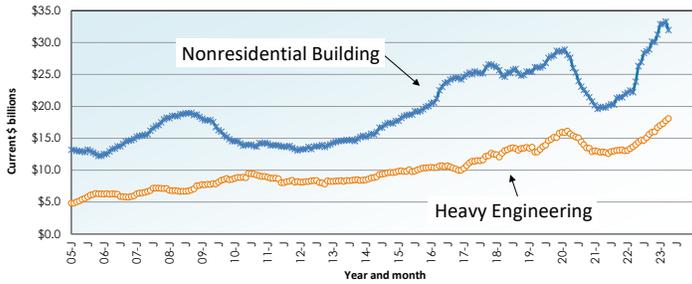
LOCATION (EAST TO WEST)	TYPE OF CONSTRUCTION	DESCRIPTION	SQUARE FEET 000S*	DOLLARS 000,000S
<b>Pennsylvania</b> Philadelphia	Institutional	Schuylkill Avenue Research Center - Children’s Hospital of Philadelphia (1 structure) 2716 South St The Children’s Hospital of Philadelphia (CHOP) - Facility Services & Construction Management	470	\$600
<b>North Carolina</b> Charlotte	Commercial	Queensbridge Collective (3 structures; 45 stories) 1111 S Tryon St Riverside Investment & Development Company	1,200	\$750
<b>Michigan</b> Sault Sainte Marie	Civil/Engineering	New Lock at the Soo, New Third Lock (2 structures) 312 W Portage Ave US Army Corps of Engineers - Detroit District	*	\$1,300
<b>Indiana</b> Kokomo	Industrial	Stellantis - Samsung SDI Battery Manufacturing Plant / Kokomo (1 structure) 2644 N 50 E WG Yates & Sons Construction Company (Owner’s Rep)	3,300	\$2,500
<b>Texas</b> Austin	Civil/Engineering	I-35 Capital Express North (2 structures) I-35 Texas Department of Transportation (TxDOT) - Austin	*	\$606
Irving	Commercial	Wells Fargo Office Development / Irving (2 structures) W Las Colinas Blvd & Promenade Pkwy KDC Development	800	\$455
<b>Colorado</b> Denver	Commercial	Great Hall Completion Project, Final Phase (#3), Denver Airport (1 structure) 8500 Peña Blvd City & County of Denver	*	\$626
Pueblo	Industrial	CS Wind Tower Turbine Mnfng Plant Expansion (1 structure) 100 Tower Rd Vestas Blades America, Inc.	900	\$483
<b>Washington</b> Moses Lake	Industrial	BAM (Battery Activated Materials)-2 Facility (1 structure) 3400 E Wheeler Rd Group14 Technologies	1,000	\$500
<b>Oregon</b> Klamath Falls	Civil/Engineering	The Klamath River Renewal Project (2 structures) Multiple Locations Klamath River Renewal Corporation	*	\$450
<b>TOTALS:</b>			<b>7,670</b>	<b>\$8,270</b>

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

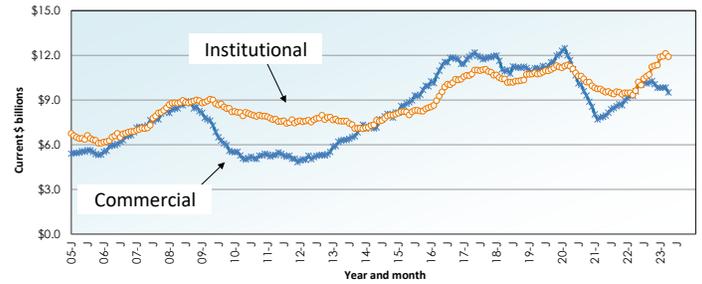
Source: ConstructConnect/Table: ConstructConnect.

## Trend graphs for 12 key categories

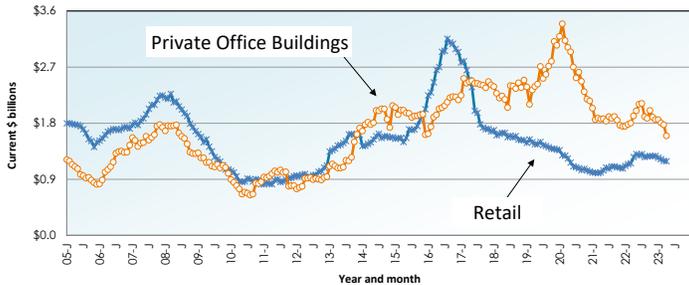
**GRAPH 11: U.S. NONRESIDENTIAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



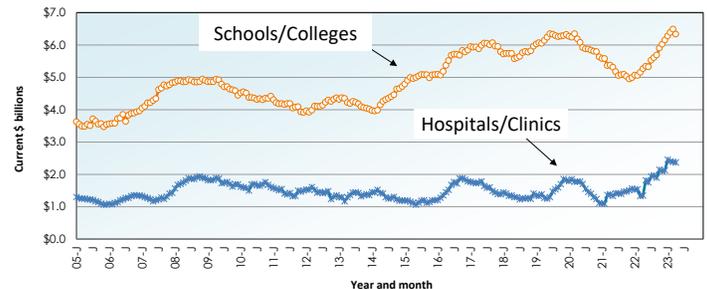
**GRAPH 12: U.S. COMMERCIAL AND INSTITUTIONAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



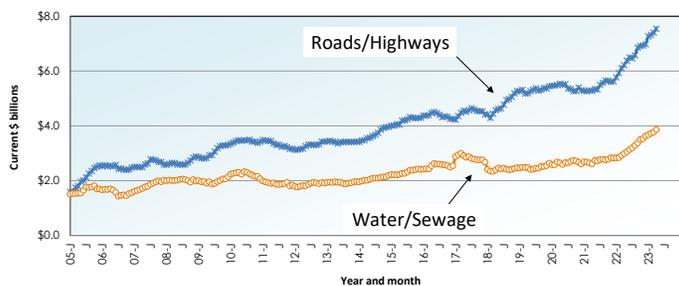
**GRAPH 13: U.S. RETAIL AND PRIVATE OFFICE BUILDING CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



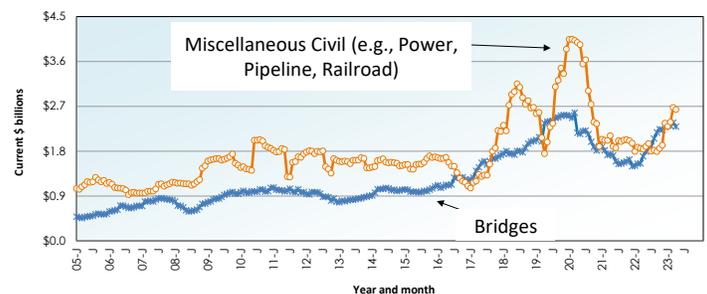
**GRAPH 14: U.S. HOSPITAL/CLINIC AND SCHOOL/COLLEGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



**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 April, 2023.

Source: ConstructConnect/Charts: ConstructConnect.

## Regional starts table

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

	Jan-Apr 2022	Jan-Apr 2023	% Change
Connecticut	\$723,279,589	\$1,521,861,252	110.4%
Maine	\$2,353,024,561	\$333,044,490	-85.8%
Massachusetts	\$3,091,833,147	\$3,221,084,051	4.2%
New Hampshire	\$244,539,327	\$518,509,854	112.0%
Rhode Island	\$556,879,466	\$166,007,269	-70.2%
Vermont	\$118,538,867	\$160,849,859	35.7%
<b>Total New England</b>	<b>\$7,088,094,957</b>	<b>\$5,921,356,775</b>	<b>-16.5%</b>
New Jersey	\$3,557,116,676	\$2,036,586,573	-42.7%
New York	\$8,628,482,481	\$10,565,139,606	22.4%
Pennsylvania	\$3,876,302,958	\$5,559,438,918	43.4%
<b>Total Middle Atlantic</b>	<b>\$16,061,902,115</b>	<b>\$18,161,165,097</b>	<b>13.1%</b>
<b>TOTAL NORTHEAST</b>	<b>\$23,149,997,072</b>	<b>\$24,082,521,872</b>	<b>4.0%</b>
Illinois	\$5,203,533,958	\$4,784,917,590	-8.0%
Indiana	\$3,845,738,297	\$7,195,784,493	87.1%
Michigan	\$5,266,729,522	\$4,792,154,251	-9.0%
Ohio	\$4,081,395,451	\$7,961,061,148	95.1%
Wisconsin	\$3,023,914,862	\$2,622,150,392	-13.3%
<b>Total East North Central</b>	<b>\$21,421,312,090</b>	<b>\$27,356,067,874</b>	<b>27.7%</b>
Iowa	\$1,629,279,281	\$2,434,504,755	49.4%
Kansas	\$1,539,667,271	\$1,918,879,435	24.6%
Minnesota	\$2,240,527,196	\$2,174,345,955	-3.0%
Missouri	\$3,696,860,329	\$2,583,812,956	-30.1%
Nebraska	\$2,237,019,952	\$2,190,790,951	-2.1%
North Dakota	\$1,283,501,078	\$1,390,143,586	8.3%
South Dakota	\$1,582,228,214	\$2,034,598,745	28.6%
<b>Total West North Central</b>	<b>\$14,209,083,321</b>	<b>\$14,727,076,383</b>	<b>3.6%</b>
<b>TOTAL MIDWEST</b>	<b>\$35,630,395,411</b>	<b>\$42,083,144,257</b>	<b>18.1%</b>
Delaware	\$307,856,813	\$375,999,985	22.1%
District of Columbia	\$690,527,174	\$624,150,865	-9.6%
Florida	\$9,086,327,794	\$10,241,153,134	12.7%
Georgia	\$3,742,748,547	\$4,988,424,561	33.3%
Maryland	\$3,069,306,961	\$3,561,680,832	16.0%
North Carolina	\$6,853,557,385	\$5,987,770,569	-12.6%
South Carolina	\$2,569,959,939	\$2,636,763,160	2.6%
Virginia	\$3,598,176,418	\$3,880,508,383	7.8%
West Virginia	\$526,047,288	\$850,158,679	61.6%
<b>Total South Atlantic</b>	<b>\$30,444,508,319</b>	<b>\$33,146,610,168</b>	<b>8.9%</b>
Alabama	\$2,163,033,054	\$4,853,483,130	124.4%
Kentucky	\$1,707,166,486	\$1,457,042,787	-14.7%
Mississippi	\$861,023,309	\$1,227,686,561	42.6%
Tennessee	\$3,189,536,192	\$2,754,572,401	-13.6%
<b>Total East South Central</b>	<b>\$7,920,759,041</b>	<b>\$10,292,784,879</b>	<b>29.9%</b>
Arkansas	\$1,119,622,285	\$1,723,703,424	54.0%
Louisiana	\$13,236,962,496	\$1,893,364,328	-85.7%
Oklahoma	\$1,491,446,096	\$2,662,851,130	78.5%
Texas	\$21,322,230,225	\$32,681,090,053	53.3%
<b>Total West South Central</b>	<b>\$37,170,261,102</b>	<b>\$38,961,008,935</b>	<b>4.8%</b>
<b>TOTAL SOUTH</b>	<b>\$75,535,528,462</b>	<b>\$82,400,403,982</b>	<b>9.1%</b>
Arizona	\$1,925,110,169	\$3,029,677,128	57.4%
Colorado	\$2,503,563,055	\$3,664,101,480	46.4%
Idaho	\$766,516,900	\$951,605,546	24.1%
Montana	\$526,775,972	\$761,314,212	44.5%
Nevada	\$1,431,140,703	\$1,550,835,788	8.4%
New Mexico	\$797,051,375	\$1,398,088,212	75.4%
Utah	\$1,837,891,908	\$2,243,766,069	22.1%
Wyoming	\$448,822,602	\$562,842,274	25.4%
<b>Total Mountain</b>	<b>\$10,236,872,684</b>	<b>\$14,162,230,709</b>	<b>38.3%</b>
Alaska	\$335,059,282	\$3,722,441,485	1011.0%
California	\$11,341,452,824	\$13,612,455,782	20.0%
Hawaii	\$204,557,873	\$898,123,140	339.1%
Oregon	\$1,630,052,378	\$1,818,215,207	11.5%
Washington	\$2,549,745,104	\$2,943,321,682	15.4%
<b>Total Pacific</b>	<b>\$16,060,867,461</b>	<b>\$22,994,557,296</b>	<b>43.2%</b>
<b>TOTAL WEST</b>	<b>\$26,297,740,145</b>	<b>\$37,156,788,005</b>	<b>41.3%</b>
<b>TOTAL U.S.</b>	<b>\$160,613,661,090</b>	<b>\$185,722,858,116</b>	<b>15.6%</b>

\*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 — APRIL 2023 — ConstructConnect®  
BILLIONS OF CURRENT \$\$, NOT SEASONALLY ADJUSTED (NSA)

	Latest month actuals			Moving averages (placed in end month)						Year to Date	
	Feb 23	Mar 23	Apr 23	Feb 23	3-months Mar 23	Apr 23	Feb 23	12-months Mar 23	Apr 23	Jan-Apr, 2022	Jan-Apr, 2023
<b>Single Family</b>	12,504	15,461	16,435	12,685	13,417	14,800	17,670	17,076	16,390	85,087	56,687
month-over-month % change	1.8%	23.7%	6.3%	-1.7%	5.8%	10.3%	-3.1%	-3.4%	-4.0%		
year-over-year % change	-35.0%	-31.5%	-33.4%	-33.4%	-33.4%	-33.2%	-18.8%	-21.3%	-25.1%	6.1%	-33.4%
<b>Apartment</b>	7,122	8,875	4,777	8,253	8,537	6,925	11,776	11,624	10,857	43,729	30,389
month-over-month % change	-25.9%	24.6%	-46.2%	-9.9%	3.4%	-18.9%	-1.3%	-1.3%	-6.6%		
year-over-year % change	-21.0%	-17.1%	-65.8%	-9.0%	-13.9%	-38.3%	28.9%	24.0%	12.5%	33.6%	-30.5%
<b>TOTAL RESIDENTIAL</b>	19,626	24,336	21,212	20,938	21,954	21,725	29,446	28,700	27,247	128,816	87,076
month-over-month % change	-10.4%	24.0%	-12.8%	-5.1%	4.9%	-1.0%	-2.4%	-2.5%	-5.1%		
year-over-year % change	-30.6%	-26.9%	-45.1%	-25.5%	-27.0%	-35.0%	-4.7%	-7.6%	-13.6%	14.1%	-32.4%
<b>Hotel/Motel</b>	0,780	1,111	0,559	0,671	0,810	0,817	0,863	0,875	0,876	3,014	2,988
month-over-month % change	44.9%	42.6%	-49.7%	23.5%	20.7%	0.8%	1.4%	1.4%	0.2%		
year-over-year % change	23.0%	14.4%	3.5%	2.9%	-1.9%	14.2%	30.4%	26.7%	28.3%	48.7%	-0.9%
<b>Retail/Shopping</b>	0,902	1,046	2,295	0,886	1,029	1,414	1,221	1,194	1,191	6,392	5,380
month-over-month % change	-20.7%	16.0%	119.3%	2.2%	16.0%	37.5%	-1.9%	-2.2%	-0.3%		
year-over-year % change	-23.8%	-23.6%	-1.9%	-17.3%	-23.9%	-13.3%	7.0%	3.1%	-5.3%	52.6%	-15.8%
<b>Parking Garages</b>	0,089	0,117	0,150	0,153	0,121	0,119	0,175	0,180	0,161	0,814	0,513
month-over-month % change	-42.8%	31.3%	28.2%	-16.2%	-20.7%	-1.6%	-3.9%	2.9%	-10.3%		
year-over-year % change	-49.0%	104.8%	-59.6%	-5.5%	-17.9%	-41.0%	24.5%	36.5%	1.9%	19.1%	-37.0%
<b>Amusement</b>	0,573	1,077	1,188	0,605	0,766	0,946	0,648	0,691	0,745	2,351	3,486
month-over-month % change	-11.8%	88.1%	10.3%	-3.3%	26.6%	23.4%	-4.4%	6.5%	7.9%		
year-over-year % change	-38.4%	89.8%	122.8%	9.4%	26.5%	39.8%	11.9%	20.3%	27.0%	26.1%	48.3%
<b>Office</b>	1,001	1,427	1,042	1,145	1,295	1,157	1,804	1,774	1,597	8,041	4,926
month-over-month % change	-31.2%	42.5%	-27.0%	-13.8%	13.1%	-10.7%	-2.7%	-1.7%	-10.0%		
year-over-year % change	-37.9%	-20.6%	-67.1%	-23.9%	-20.3%	-47.2%	1.3%	-1.4%	-16.7%	33.9%	-38.7%
<b>Governmental Offices</b>	1,076	1,173	1,255	1,064	1,121	1,168	1,185	1,201	1,212	3,402	4,619
month-over-month % change	-3.4%	9.0%	7.0%	3.5%	5.3%	4.2%	3.8%	1.3%	0.9%		
year-over-year % change	92.0%	19.5%	10.8%	57.3%	48.2%	31.0%	22.7%	23.4%	23.9%	1.0%	35.8%
<b>Laboratories</b>	0,089	0,587	0,225	0,151	0,308	0,300	0,411	0,434	0,393	1,281	1,149
month-over-month % change	-64.0%	558.9%	-61.7%	-31.1%	104.3%	-2.5%	-1.3%	5.6%	-9.6%		
year-over-year % change	-43.1%	88.5%	-69.1%	1.2%	66.8%	-24.6%	99.2%	109.8%	56.2%	78.4%	-10.3%
<b>Warehouse</b>	0,642	1,174	1,153	1,265	1,115	0,990	2,260	2,203	2,041	8,785	4,497
month-over-month % change	-58.0%	82.8%	-1.8%	-13.9%	-11.9%	-11.2%	-3.8%	-2.5%	-7.4%		
year-over-year % change	-62.7%	-36.9%	-62.8%	-29.2%	-41.2%	-55.5%	-6.5%	-5.8%	-11.6%	-5.6%	-48.8%
<b>Misc Commercial</b>	3,112	0,892	1,158	1,640	1,630	1,721	1,265	1,281	1,289	3,382	6,049
month-over-month % change	250.8%	-71.3%	29.9%	95.9%	-0.6%	5.5%	16.3%	1.3%	0.7%		
year-over-year % change	217.3%	27.8%	9.5%	-14.9%	110.4%	88.6%	-11.2%	-8.9%	-10.7%	64.1%	78.8%
<b>TOTAL COMMERCIAL</b>	8,264	8,605	9,024	7,580	8,194	8,631	9,833	9,832	9,504	37,462	33,607
month-over-month % change	7.1%	4.1%	4.9%	6.8%	8.1%	5.3%	0.3%	0.0%	-3.3%		
year-over-year % change	3.9%	-0.1%	-30.4%	-10.6%	0.3%	-12.3%	5.5%	6.0%	-0.8%	24.0%	-10.3%
<b>TOTAL INDUSTRIAL (Manufacturing)</b>	1,947	4,933	4,052	11,888	7,610	3,644	10,496	10,696	9,910	21,196	26,883
month-over-month % change	-87.8%	153.4%	-17.9%	-6.6%	-36.0%	-52.1%	-0.3%	1.9%	-7.3%		
year-over-year % change	-14.0%	94.6%	-69.9%	439.2%	195.8%	-40.2%	233.0%	247.1%	141.8%	198.7%	26.8%
<b>Religious</b>	0,070	0,083	0,101	0,063	0,072	0,084	0,087	0,086	0,086	0,309	0,316
month-over-month % change	11.1%	19.7%	20.8%	0.3%	13.6%	17.6%	3.2%	-1.0%	0.1%		
year-over-year % change	87.1%	-11.1%	0.7%	26.1%	2.9%	9.8%	-14.5%	-14.1%	-14.3%	-5.1%	2.2%
<b>Hospitals/Clinics</b>	0,891	1,197	1,077	2,380	2,244	1,055	2,402	2,386	2,369	4,851	7,810
month-over-month % change	-80.8%	34.3%	-10.0%	-9.6%	-5.7%	-53.0%	-2.1%	-0.6%	-0.7%		
year-over-year % change	-40.7%	-13.3%	-16.1%	103.4%	88.7%	-24.0%	56.1%	79.7%	76.1%	-34.7%	61.0%
<b>Nursing/Assisted Living</b>	0,122	0,180	0,192	0,218	0,195	0,165	0,317	0,314	0,285	1,755	0,778
month-over-month % change	-56.9%	47.0%	6.7%	0.0%	-10.3%	-15.7%	-10.3%	-0.9%	-9.2%		
year-over-year % change	-78.1%	-15.7%	-64.5%	-50.4%	-51.8%	-62.4%	-39.3%	-35.4%	-41.9%	-3.9%	-55.7%
<b>Libraries/Museums</b>	0,145	0,193	0,349	0,184	0,178	0,229	0,286	0,264	0,278	1,158	0,883
month-over-month % change	-26.1%	33.6%	80.7%	-22.7%	-3.2%	28.8%	-4.1%	-7.5%	5.2%		
year-over-year % change	-50.6%	-57.2%	89.4%	-39.0%	-45.2%	-26.0%	-8.1%	-19.5%	-16.5%	53.7%	-23.7%
<b>Fire/Police/Courthouse/Prison</b>	0,539	0,925	0,958	0,573	0,685	0,807	0,746	0,783	0,811	2,181	3,014
month-over-month % change	-9.0%	71.7%	3.5%	-14.4%	19.6%	17.8%	1.1%	5.0%	3.5%		
year-over-year % change	21.1%	92.9%	52.5%	-6.4%	32.4%	56.0%	20.6%	26.4%	30.4%	-11.4%	38.2%
<b>Military</b>	0,628	1,929	0,674	0,851	1,409	1,077	0,978	1,110	0,981	2,860	4,901
month-over-month % change	-62.4%	207.1%	-65.1%	-9.1%	65.5%	-23.6%	4.2%	13.5%	-11.6%		
year-over-year % change	306.5%	458.5%	-69.7%	144.1%	566.0%	18.6%	41.2%	71.9%	21.0%	22.2%	71.4%
<b>Schools/Colleges</b>	5,181	7,185	5,901	5,733	6,328	6,089	6,386	6,487	6,337	22,665	24,885
month-over-month % change	-21.7%	38.7%	-17.9%	2.4%	10.4%	-3.8%	1.7%	1.6%	-2.3%		
year-over-year % change	32.8%	20.2%	-23.4%	34.2%	26.9%	3.9%	26.3%	25.9%	20.3%	17.0%	9.8%
<b>Misc Medical</b>	0,384	0,394	1,209	0,403	0,426	0,662	0,729	0,697	0,760	2,477	2,488
month-over-month % change	-23.3%	2.6%	207.0%	-15.9%	5.8%	55.4%	-1.7%	-4.4%	9.0%		
year-over-year % change	-28.7%	-49.6%	163.4%	-39.2%	-36.6%	11.7%	13.9%	4.5%	17.7%	12.1%	0.4%
<b>TOTAL INSTITUTIONAL</b>	7,959	12,086	10,461	10,405	11,538	10,169	11,932	12,128	11,907	38,255	45,074
month-over-month % change	-45.4%	51.8%	-13.4%	-4.0%	10.9%	-11.9%	0.4%	1.6%	-1.8%		
year-over-year % change	7.1%	24.3%	-20.3%	32.4%	37.7%	0.8%	25.9%	30.0%	23.8%	4.2%	17.8%
<b>Misc Non Residential</b>	0,406	0,488	0,664	0,540	0,523	0,519	0,653	0,638	0,641	2,438	2,232
month-over-month % change	-39.9%	20.2%	36.2%	-4.4%	-3.3%	-0.7%	-1.1%	-2.2%	0.4%		
year-over-year % change	-17.8%	-26.2%	4.5%	3.5%	-13.0%	-13.0%	20.8%	15.6%	14.0%	20.6%	-8.4%
<b>TOTAL NON-RES BUILDING</b>	18,576	26,112	24,201	30,413	27,865	22,963	32,914	33,295	31,962	99,350	107,796
month-over-month % change	-52.3%	40.6%	-7.3%	-2.6%	-8.4%	-17.6%	0.1%	1.2%	-4.0%		
year-over-year % change	2.4%	21.3%	-39.8%	59.5%	41.3%	-13.8%	46.3%	49.7%	34.0%	30.6%	8.5%
<b>Airports</b>	0,383	0,671	0,738	0,570	0,657	0,597	0,707	0,725	0,749	1,435	2,710
month-over-month % change	-58.2%	75.1%	9.9%	-7.3%	15.4%	-9.1%	2.5%	2.5%	3.3%		
year-over-year % change	112.9%	46.4%	63.9%	116.2%	100.3%	64.6%	56.1%	52.8%	58.0%	51.0%	88.9%
<b>Roads/Highways</b>	6,154	8,994	10,402	6,369	8,020	8,517	7,326	7,399	7,543	27,661	34,461
month-over-month % change	-30.9%	46.1%	15.7%	6.2%	25.9%	6.2%	0.8%	1.0%	1.9%		
year-over-year % change	13.4%	10.7%	19.9%	33.5%	26.7%	15.0%	23.6%	21.2%	21.3%	35.3%	24.6%
<b>Bridges</b>	1,577	2,553	2,816	1,927	2,219	2,315	2,311	2,372	2,295	9,347	9,472
month-over-month % change	-37.6%	61.9%	10.3%	2.9%	15.2%	4.4%	0.0%	2.6%	-3.2%		
year-over-year % change	-0.6%	40.4%	-24.6%	21.5%	18.6%	-2.7%	49.1%	52.5%	35.1%	34.3%	1.3%
<b>Dams/Marine</b>	0,961	0,696	2,573	0,793	0,721	1,410	0,823	0,801	0,989	2,342	4,735
month-over-month % change	90.3%	-27.6%	269.8%	0.8%	-9.2%	95.7%	6.7%	-2.7%	23.5%		
year-over-year % change	178.5%	-27.7%	708.4%	16.2%	6.8%	160.2%	13.1%	4.9%	33.1%	18.8%	102.2%
<b>Water/Sewage</b>	2,862	4,149	4,533	3,315	3,538	3,848	3,730	3,767	3,857	12,343	15,148
month-over-month % change	-20.6%	45.0%	9.2%	-0.7%	6.8%	8.7%	1.7%	1.0%	2.4%		
year-over-year % change	35.3%	12.3%	31.1%	33.2%	19.5%	24.5%	31.5%	29.2%	29.1%	19.2%	22.7%
<b>Misc Civil (Power, etc.)</b>	2,757	4,831	1,749	3,608	3,218	3,112	2,384	2,675	2,632	8,136	11,402
month-over-month % change	33.5%	75.2%	-63.8%	5.8%	-10.8%	-3.3%	3.7%	12.2%	-1.6%		
year-over-year % change	59.0%	259.8%	-22.4%	106.3%	64.1%	75.1%	27.0%	44.2%	43.0%	-14.7%	40.1%
<b>TOTAL ENGINEERING (Civil)</b>	14,695	21,894	22,811	16,581							