Construction Industry Snapshot

Issued: November 2019
(based on October 2019 Starts Stats)

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Marketing Analytics Team

October 2019's Nonresidential Construction Starts +7% M/M and +5% Ytd

ConstructConnect announced today that the latest month's volume of construction starts, excluding residential work, was $38.7 billion, +6.5% versus September's figure of $36.3 billion.

October's result was supported by $6 billion in mega project startups (i.e., 3 projects of more than $1 billion each), surpassing $2.3 billion of such work (from 2 projects) in September. The number of mega project initiations to date in 2019 has nearly doubled Jan-Oct 2018's tally.

	Commercial	Retail	Private Office	Hotel & Motel	Industrial	Institutional	Schools	Hospitals & Clinics	Heavy Engineering	Total Non-Residential
Oct 19 vs Sep 19	-23%	-29%	+16%	-1%	+232%	+12%	-7%	+107%	+15%	+7%
Jan-Oct 19 vs Jan-Oct 18	-6%	-18%	-1%	-29%	+51%	-2%	+1%	+12%	+9%	+5%
Jan-Oct 18 vs Jan-Oct 17	-8%	-9%	+2%	-11%	-11%	-4%	0%	-9%	+8%	-2%

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October's Notable Points

- The +6.5% elevation in total nonresidential starts month-over-month (m/m) in October arose in almost every type-of-structure sub-category with only commercial, at -23.4%, holding back. Industrial was +232.1%; heavy engineering/civil, +15.1%; and institutional, +11.8%. October's starts featured strength in rapid transit and mixed-use industrial work.
- The flatline record (+0.3%) of October 2019's nonresidential starts relative to October 2018 (y/y) resulted from declines in industrial (-40.5%) and commercial (-21.4%) that were entirely counterbalanced by a surge in engineering (+26.0%), while institutional (-0.4%) was sidelined.

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October 2019's Nonresidential Construction Starts +7% M/M and +5% Ytd

October's Starts Defied the Usual Seasonality

ConstructConnect announced today that the latest month's volume of construction starts, excluding residential work, was $38.7 billion *(green shaded box, Table 5, page 8)*, +6.5% versus September's figure of $36.3 billion (originally reported as $34.7 billion). From September to October, there is usually a change of -4% in total nonresidential starts due to 'seasonality'. October's result was supported by $6 billion in mega project startups (i.e., 3 projects of more than $1 billion each), surpassing $2.3 billion of such work (from 2 projects) in September.

To date in 2019, there have been 29 mega project initiations with a total estimated valuation of $72 billion compared with 16 such projects in the first ten months of last year, for $40 billion.

October 2019's total nonresidential start's level was almost an exact match for October 2018 (+0.3%). October 2019's year-to-date volume was +4.5% above January-October of last year.

'SMOOTHED' SERIES — GRAND TOTAL NEITHER UP NOR DOWN

Since large project groundbreakings can often introduce notable volatility in the monthly 'starts' numbers and their period-to-period percentage changes, it is informative to also study 'smoothed' series, such as are set out in the middle columns of Table 5 on page 8.

On a 12-month moving average basis, October 2019's total nonresidential starts were +6.0% versus the previous 12 months (i.e., November-2018-to-October-2019 vs November-2017-to-October-2018). Type-of-structure sub-category starts on the same 12-month-over-prior-12-month terms in October 2019 were: commercial, -5.7%; industrial, +57.4%; institutional, +1.6%; and engineering, +9.2%. In nominal dollars, engineering starts have been three times greater than industrial year to date.

The 'smoothed' grand total of starts, which includes residential, was flat (+0.2%) in October. Residential activity has been -8.7% on a 12-month moving average basis, with multi-family starts reversing (-12.8%) about twice as quickly as single-family groundbreakings (-6.8%).

'Starts' as a Leading Indicator

The 'starts' figures appearing in this report's tables and graphs are not seasonally adjusted (NSA). Nor have they been altered to remove the effects of price changes, otherwise known as inflation. They are expressed in what are termed 'current' as opposed to 'constant' dollars.

'Nonresidential building' plus 'engineering/civil' work accounts for a larger share of total construction than residential activity. The former's combined proportion of total put-in-place construction in the Census Bureau's latest report, for September, was 61%; the latter's was 39%.

ConstructConnect's construction starts are leading indicators for the Census Bureau's capital investment or put-in-place series. Also, the reporting period for starts (October 2019) is one month ahead of the reporting period for the investment series (September 2019).

Construction Overview — Monthly Average Jobs Growth -56%

The total number of jobs in the U.S. construction sector rose by +10,000 in October, cutting the year-to-date monthly average to +13,000. This year's monthly average jobs increase has fallen more than 50% below last year's pace of +29,000. The NSA unemployment rate in the sector has bobbed up to 4.0% from 3.2% the month before. A year ago, in October 2018, it had been 3.6%.

Construction's year-over-year jobs climb of +2.0% is still beating the economy-wide 'all-jobs' performance of +1.4%, but it has not kept up with 'education and health', at +2.7%, and 'leisure and hospitality', +2.4%. Nevertheless, +2.0% is far better than manufacturing's +0.4% or retail's -0.1%.

October's year-over-year employment changes in sub-segments of the economy with close ties to construction were: 'oil and gas extraction', +11.8%; 'machinery and equipment rental', +8.9%; 'real estate activities', +2.7%; 'architectural and engineering services', +2.4%; 'cement and concrete product manufacturing', +1.3%; and 'building material and supplies dealers', +0.7%.

TABLE 1: VALUE OF UNITED STATES CONSTRUCTION STARTS — OCTOBER 2019 (ConstructConnect®)

	Jan-Oct 2019 ($ billions)	% Change Jan-Oct 19 vs Jan-Oct 18	% Change Oct 19 vs Oct 18	% Change Oct 19 vs Sep 19
Hotel/Motel	16.174	-28.5%	-30.8%	-0.9%
Retail/Shopping	13.134	-17.7%	-26.5%	-28.8%
Parking Garage	2.500	18.5%	-1.8%	31.4%
Amusement	5.812	-17.8%	-44.8%	27.6%
Private Office	25.482	-0.9%	8.4%	15.7%
Government Office	9.401	4.0%	-4.8%	14.7%
Laboratory	1.893	-26.2%	-52.1%	-52.8%
Warehouse	16.300	-13.7%	-59.8%	-50.2%
Miscellaneous Commercial *	17.061	53.6%	56.7%	-69.8%
COMMERCIAL (big subset)	**107.757**	**-6.3%**	**-21.4%**	**-23.4%**
INDUSTRIAL (Manufacturing)	**47.087**	**51.3%**	**-40.5%**	**232.1%**
Religious	1.362	-23.0%	-39.4%	-32.7%
Hospital/Clinic	15.226	12.3%	82.6%	107.3%
Nursing/Assisted Living	7.350	-17.0%	-31.8%	14.2%
Library/Museum	3.099	29.7%	-22.4%	-14.4%
Fire/Police/Courthouse/Prison	5.857	-12.2%	-35.2%	-34.8%
Military	4.370	5.4%	28.4%	49.2%
School/College	62.789	0.7%	-9.3%	-7.3%
Miscellaneous Medical	6.981	-28.2%	-4.2%	34.3%
INSTITUTIONAL	**107.032**	**-2.2%**	**-0.4%**	**11.8%**
Miscellaneous Non-residential	5.830	-7.1%	45.9%	104.1%
NONRESIDENTIAL BUILDING	**267.706**	**2.2%**	**-13.5%**	**0.6%**
Airport	6.221	-4.7%	-25.5%	41.1%
Road/Highway	55.464	-0.4%	7.2%	-1.7%
Bridge	22.334	8.7%	-11.0%	-31.6%
Dam/Marine	7.138	28.1%	-2.5%	97.1%
Water/Sewage	25.759	1.3%	-2.4%	-3.7%
Miscellaneous Civil (power, pipelines, etc.)	37.140	33.3%	141.1%	61.6%
HEAVY ENGINEERING (Civil)	**154.055**	**8.8%**	**26.0%**	**15.1%**
TOTAL NONRESIDENTIAL	**421.761**	**4.5%**	**0.3%**	**6.5%**

* Includes transportation terminals and sports arenas.

Source: ConstructConnect Research Group/Table: ConstructConnect.

M/M, Y/Y and YTD Results — Strength in Rapid Transit and Mixed-use Industrial Work

The +6.5% elevation in total nonresidential starts month-over-month (m/m) in October arose in almost every type-of-structure sub-category with only commercial, at -23.4%, holding back. Industrial was +232.1%; heavy engineering/civil, +15.1%; and institutional, +11.8%. October's starts featured strength in rapid transit and mixed-use industrial work *(see Top 10, page 5)*.

The flatline record (+0.3%) of October 2019's nonresidential starts relative to October 2018 (y/y) resulted from declines in industrial (-40.5%) and commercial (-21.4%) that were entirely counterbalanced by a surge in engineering (+26.0%), while institutional (-0.4%) was sidelined.

Concerning the +3.5% improvement in total nonresidential starts, January-October 2019 versus January-October 2018 (ytd), industrial (+51.3%) and engineering (+8.8%) have been the drivers, with commercial (-6.3%) and, to a lesser extent, institutional (-2.2%), acting as anchors.

Higher Education a Drag; Passenger Terminals and Arenas Provide Pizzazz

At more than one-third, 'road/highway' work has accounted for the largest share (36%) of engineering starts to date in 2019. In percentage-change terms, however, street starts in October were underwhelming: +7.2% y/y, but -1.7% m/m and -0.4% ytd. The standout among engineering sub-components this year (with a 24% share) has been 'miscellaneous civil'. Its metrics in the latest month were +141.1% y/y, +61.6% m/m and +33.3% ytd. Light rail extension projects appear prominently among October's Top 10 groundbreakings *(see listing on page 5)*.

'Private office' work has made up about one-quarter (24%) of total commercial starts so far this year. In October, such starts were +15.7% m/m and

Continued on page 3

Continued from page 2

+8.4% y/y, but they were little changed from 2018 ytd, -0.9%. 'Hotels/motels', 'warehouses' and 'miscellaneous' have been carrying almost equal weight (15% to 16%) within commercial so far this year. 'Hotel/motel' starts in October were -0.9% m/m, but more severely depressed y/y, -30.8%, and ytd, -28.5%. 'Warehouse' work has been -59.8% y/y and -50.2% m/m, but not as much in the hole ytd, -13.7%. 'Miscellaneous commercial' has been -69.8% m/m, but +56.7% y/y and +53.6% ytd, with support for the ytd percentage change coming from 'passenger terminals', +86.7% ytd, and 'sports arenas', +27.9% ytd.

'School/college' starts have contributed 59% to the institutional total to date in 2019, but their performance has been restrained: -9.3% y/y and -7.3% m/m, while managing a miniscule gain of +0.7% ytd. 'College/university' starts, at -7.0% ytd, have been the source of lethargy. In the medical field, 'hospital/clinic' starts had a good month in October: +107.3% m/m; +82.6% y/y; and +12.3% ytd. 'Nursing/assisted living' starts have been -17.0% ytd and 'miscellaneous medical' starts, -28.2% ytd. Combined medical work has provided a 28% share towards total institutional.

JOLTS' Message More Muted and a Flattening in Trend Graphs

From Graph 1, construction job openings, measured as either a 'rate' or a 'level', continue to be historically high. Worth noting, though, is that openings for all jobs in the economy, while also high, have been slightly receding over the past 12 months. One might suppose that construction job hires would also be above previous peaks. Such is not the case, however, as is made clear in Graph 2. The 'level' continues to slowly rise, but is still well below where it was in the early 00s. The hires 'rate' remains anemic, stuck in a range between 5.0% and 5.5%. The all-jobs hires numbers have ceased soaring rapidly, but they are still even with or above prior summits.

Most of the 12-month-moving-average trend lines appearing on page 6 have been displaying either a flattening or a mild tendency to slope downwards of late. That's certainly been the case for 'nonresidential buildings' (Graph 3), 'institutional' and 'commercial' (Graph 4) 'private office buildings' (Graph 5), 'schools' and 'hospitals' (Graph 6) — with the former showing some recent downdraft and the latter some recent uplift — and 'water/sewage' (Graph 7). 'Retail' (Graph 5) continues to plummet. 'Heavy engineering', though, has some sub-categories with curves that are moving smartly higher, especially 'bridges' and 'miscellaneous civil' (Graph 8).

Wage Gains — Nothing Special for Construction Workers

Tables B-3 and B-8 of the monthly *Employment Situation* report 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 relevant percentage changes to consider.

From October's BLS Table B-3 (including supervisory personnel), the 'all-jobs' earnings increases were +3.0% hourly and +2.7% weekly. Construction workers as a subset of 'all-jobs' did less well hourly, +2.4%, but outperformed weekly, +3.7%. From the latest Table B-8 (excluding bosses), the all-jobs compensation leaps were +3.5% hourly and +3.2% weekly. Relatively speaking, construction workers fell behind both hourly, +2.0%, and weekly, +2.8%.

Construction Costing — Quieter Results in October vs September

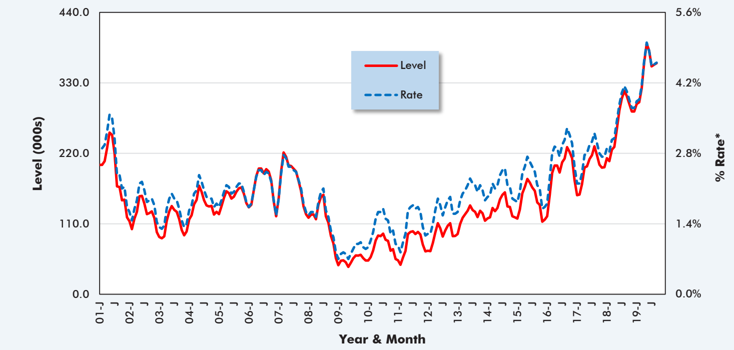
October 2019's y/y results for three BLS Producer Price Index (PPI) series were: 'construction materials special index', -2.1% (the same decline as in September); 'inputs to new construction index, excluding capital investment, labor and imports', -0.4% (a worsening from September's +0.3%); and 'final demand construction', +3.9% (down from the previous month's +5.5%).

The value of construction starts each month is derived from ConstructConnect's database of all active construction projects in the U.S. Missing project values are estimated with the help of RSMeans' building cost models. 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.

ConstructConnect's total residential starts (i.e., single-family plus multi-family starts) in the latest month were -4.7% m/m, -12.1 y/y and -9.0% ytd. To date in 2019, the multi-family segment of residential (-15.1%) has gone in arrears even more than the single-family (-6.2%) market. 'Grand total' construction starts in October were +2.0% m/m, -4.8% y/y and -0.7% ytd.♦

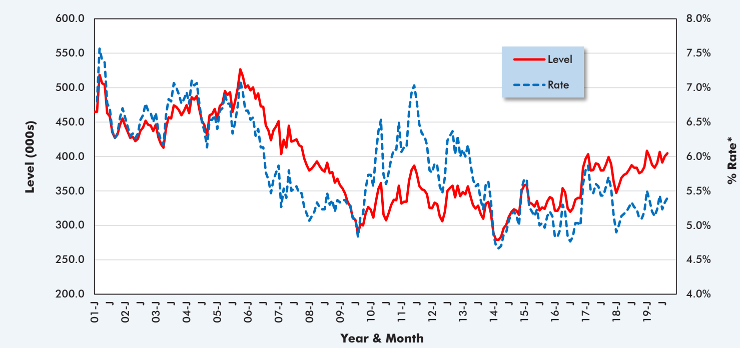
Alex Carrick

GRAPH 1: U.S. CONSTRUCTION JOB OPENINGS (FROM JOLTS REPORT) (3-MONTH MOVING AVERAGES PLACED IN LATEST MONTH)



*Rate is number of job openings end-of-month as % of 'construction employment plus number of job openings'.
JOLTS – Job Openings and Labor Turnover Survey. Latest seasonally adjusted (SA) data points are for Sept., 2019.

GRAPH 2: U.S. CONSTRUCTION JOB HIRES (FROM JOLTS REPORT) (3-MONTH MOVING AVERAGES PLACED IN LATEST MONTH)



*Rate is number of hires during month as % of construction employment.
JOLTS – Job Openings and Labor Turnover Survey. Latest seasonally adjusted (SA) data points are for Sept., 2019.

Data source: Bureau of Labor Statistics/Charts: ConstructConnect.

ConstructConnect has moved to a better-targeted and research-assigned 'start' date. (Prior to January 2017, the 'start' date was recorded as occurring within 30 to 60 days of the announced bid 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.

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.

TABLE 2: VALUE OF UNITED STATES CONSTRUCTION STARTS — ConstructConnect® INSIGHT VERSION —OCTOBER 2019 ARRANGED TO MATCH THE ALPHABETICAL CATEGORY DROP-DOWN MENUS IN INSIGHT

		Jan-Oct 2019 ($ billions)	% Change Jan-Oct 19 vs Jan-Oct 18	% Change Oct 19 vs Oct 18	% Change Oct 19 vs Sep 19
Summary					
CIVIL		154.055	8.8%	26.0%	15.1%
NONRESIDENTIAL BUILDING		267.706	2.2%	-13.5%	0.6%
RESIDENTIAL		232.150	-9.0%	-12.1%	-4.7%
GRAND TOTAL		653.911	-0.7%	-4.8%	2.0%
Verticals					
	Airport	6.221	-4.7%	-25.5%	41.1%
	All Other Civil	25.322	23.1%	401.0%	242.5%
	Bridges	22.334	8.7%	-11.0%	-31.6%
	Dams / Canals / Marine Work	7.138	28.1%	-2.5%	97.1%
	Power Infrastructure	11.818	62.3%	-68.0%	-78.9%
	Roads	55.464	-0.4%	7.2%	-1.7%
	Water and Sewage Treatment	25.759	1.3%	-2.4%	-3.7%
CIVIL		154.055	8.8%	26.0%	15.1%
	Offices (private)	25.482	-0.9%	8.4%	15.7%
	Parking Garages	2.500	18.5%	-1.8%	31.4%
	Transportation Terminals	9.078	86.7%	54.4%	132.3%
Commercial (small subset)		37.060	13.4%	12.0%	24.3%
	Amusement	5.812	-17.8%	-44.8%	27.6%
	Libraries / Museums	3.099	29.7%	-22.4%	-14.4%
	Religious	1.362	-23.0%	-39.4%	-32.7%
	Sports Arenas / Convention Centers	7.983	27.9%	59.1%	-83.9%
Community		18.256	4.5%	-25.6%	-60.3%
	College / University	15.239	-7.0%	19.5%	26.5%
	Elementary / Pre School	18.477	2.8%	11.7%	-7.0%
	Jr / Sr High School	27.434	3.7%	-30.5%	-15.4%
	Special / Vocational	1.639	6.1%	-49.2%	-77.8%
Educational		62.789	0.7%	-9.3%	-7.3%
	Courthouses	1.385	5.1%	90.1%	-76.0%
	Fire and Police Stations	2.704	3.2%	15.0%	33.2%
	Government Offices	9.401	4.0%	-4.8%	14.7%
	Prisons	1.767	-35.2%	-68.9%	-30.2%
Government		15.258	-2.8%	-21.0%	-13.8%
	Industrial Labs / Labs / School Labs	1.893	-26.2%	-52.1%	-52.8%
	Manufacturing	47.087	51.3%	-40.5%	232.1%
	Warehouses	16.300	-13.7%	-59.8%	-50.2%
Industrial		65.280	24.2%	-48.6%	11.7%
	Hospitals / Clinics	15.226	12.3%	82.6%	107.3%
	Medical Misc.	6.981	-28.2%	-4.2%	34.3%
	Nursing Homes	7.350	-17.0%	-31.8%	14.2%
Medical		29.557	-8.0%	20.5%	63.0%
Military		4.370	5.4%	28.4%	49.2%
	Hotels	16.174	-28.5%	-30.8%	-0.9%
	Retail Misc.	5.830	-7.1%	45.9%	104.1%
	Shopping	13.134	-17.7%	-26.5%	-28.8%
Retail		35.138	-21.7%	-16.5%	4.7%
NONRESIDENTIAL BUILDING		267.706	2.2%	-13.5%	0.6%
	Multi-Family	66.661	-15.1%	-29.4%	-12.2%
	Single-Family	165.489	-6.2%	-3.0%	-1.5%
RESIDENTIAL		232.150	-9.0%	-12.1%	-4.7%
NONRESIDENTIAL		421.761	4.5%	0.3%	6.5%
GRAND TOTAL		653.911	-0.7%	-4.8%	2.0%

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 2 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.

TABLE 3: ConstructConnect's TOP 10 PROJECT STARTS IN OCTOBER 2019

LOCATION (EAST TO WEST)	TYPE OF CONSTRUCTION	DESCRIPTION	SQUARE FEET 000S*	DOLLARS 000,000S
New York				
New York	Commercial	St. John's Terminal Redevelopment (2 structures; 12 stories) 550 Washington St Oxford Properties - Toronto	589	$2,000
New Jersey				
Newark	Commercial	Consolidated Rent-A-Car Facility (ConRAC) - Newark Airport (2 structures) 3 Brewster Rd Port Authority of New York and New Jersey - Procurement (PANYNJ)	2,700	$500
Tennessee				
Nashville	Commercial	Terminal Lobby and International Arrivals Facility (IAF) (2 structures) 921 Airport Service Rd Metropolitan Nashville Airport Authority	440	$327
South Dakota				
Pierre	Civil/Engineering	Crowned Ridge Wind Farm NextEra Energy Resources LLC / NextEra Energy Inc.	*	$400
Texas				
Houston	Industrial	Sam Houston Distribution Center (3 structures) Fairbanks North Houston Rd Transwestern Headquarters - Houston	834	$448
Arizona				
Phoenix	Civil/Engineering	South Central Light Rail Extension Multiple Locations Valley Metro	*	$1,300
Washington				
Lynnwood (north Seattle)	Civil/Engineering	Sound Transit Lynnwood Link Extension - Northgate to NE 200th (4 stations) Multiple Locations Sound Transit	*	$2,770
California				
San Dimas (east L.A.)	Civil/Engineering	Foothill Gold Line Light Rail Extension - Glendora to Montclair Multiple Locations Metro Gold Line Foothill Extension Construction Authority	*	$806
Burbank	Industrial	Avion Burbank (mixed-use industrial campus) (5 structures; 8 stories; 166 units) 3001 N Hollywood Way Overton Moore Properties	1,263	$600
Beverly Hills	Residential	Wilshire Boulevard Mixed-Use Development (3 structures; 7 stories; 54 units) 9200 Wilshire Blvd SHVO	314	$464
TOTALS:			**6,140**	**$9,615**

*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.

Construction Industry Snapshot

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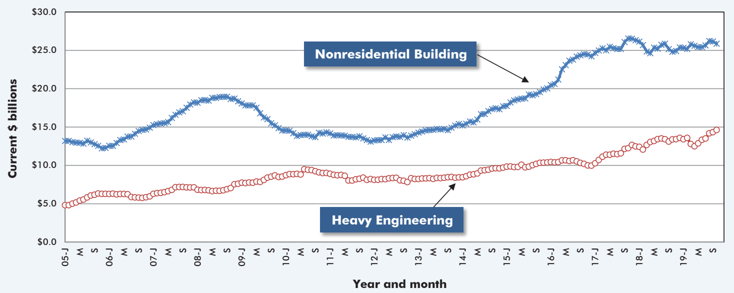
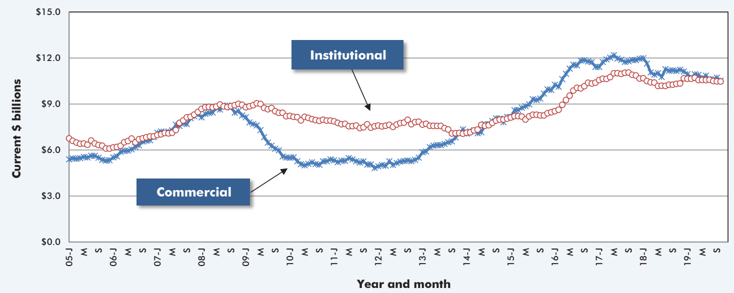
GRAPH 3: U.S. NONRESIDENTIAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)

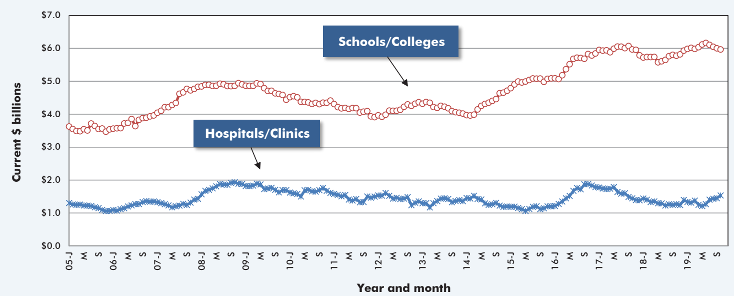


GRAPH 4: U.S. COMMERCIAL AND INSTITUTIONAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)

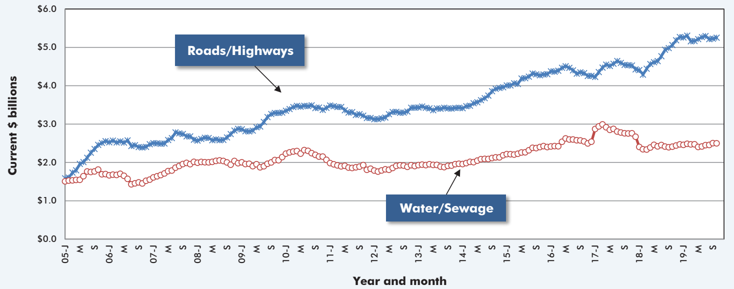


GRAPH 5: U.S. RETAIL AND PRIVATE OFFICE BUILDING CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)

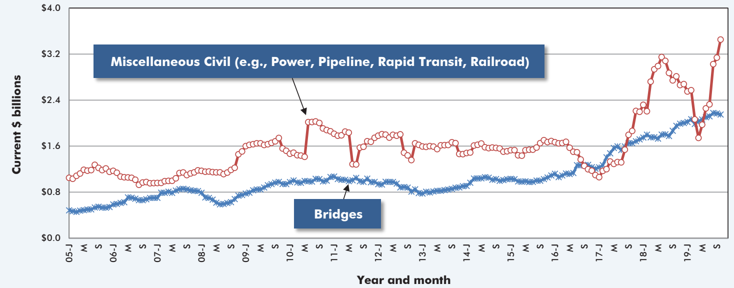
GRAPH 6: U.S. HOSPITAL/CLINIC AND SCHOOL/COLLEGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



GRAPH 7: U.S. ROAD/HIGHWAY AND WATER/SEWAGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)



GRAPH 8: 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 October, 2019.

Source: ConstructConnect/Charts: ConstructConnect.

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TABLE 4: U.S. YEAR-TO-DATE REGIONAL STARTS
NONRESIDENTIAL CONSTRUCTION* — ConstructConnect®

	Jan-Oct 2018	Jan-Oct 2019	% Change
Connecticut	$3,340,695,850	$4,006,222,844	19.9%
Maine	$1,895,370,895	$1,593,724,608	-15.9%
Massachusetts	$7,909,449,292	$10,386,161,271	31.3%
New Hampshire	$1,342,260,242	$1,337,851,701	-0.3%
Rhode Island	$2,170,274,180	$791,438,506	-63.5%
Vermont	$430,574,610	$356,392,776	-17.2%
Total New England	$17,088,625,069	$18,471,791,706	8.1%
New Jersey	$6,789,112,265	$6,551,087,794	-3.5%
New York	$25,259,820,062	$22,286,755,740	-11.8%
Pennsylvania	$11,892,768,418	$13,043,584,302	9.7%
Total Middle Atlantic	$43,941,700,745	$41,881,427,836	-4.7%
TOTAL NORTHEAST	$61,030,325,814	$60,353,219,542	-1.1%
Illinois	$11,606,279,533	$13,574,044,037	17.0%
Indiana	$7,263,641,829	$5,965,357,225	-17.9%
Michigan	$9,154,381,324	$11,504,288,508	25.7%
Ohio	$14,519,655,634	$11,348,643,148	-21.8%
Wisconsin	$19,349,441,865	$8,641,723,731	-55.3%
Total East North Central	$61,893,400,185	$51,034,056,649	-17.5%
Iowa	$4,560,665,717	$5,359,034,576	17.5%
Kansas	$4,841,879,308	$4,032,305,006	-16.7%
Minnesota	$7,834,905,431	$9,476,452,677	21.0%
Missouri	$6,935,509,089	$6,890,023,017	-0.7%
Nebraska	$2,298,536,541	$2,940,132,111	27.9%
North Dakota	$3,010,158,648	$2,316,919,588	-23.0%
South Dakota	$1,488,441,739	$2,454,488,811	64.9%
Total West North Central	$30,970,096,473	$33,469,355,786	8.1%
TOTAL MIDWEST	$92,863,496,658	$84,503,412,435	-9.0%
Delaware	$881,843,075	$972,707,789	10.3%
District of Columbia	$2,942,208,034	$1,679,838,986	-42.9%
Florida	$24,496,382,300	$28,018,393,217	14.4%
Georgia	$10,429,643,247	$15,450,500,620	48.1%
Maryland	$6,450,618,165	$5,834,559,680	-9.6%
North Carolina	$12,645,698,140	$12,654,320,346	0.1%
South Carolina	$5,772,701,541	$5,381,329,003	-6.8%
Virginia	$12,944,127,602	$8,969,116,442	-30.7%
West Virginia	$7,088,982,709	$1,416,994,788	-80.0%
Total South Atlantic	$83,652,204,813	$80,377,760,871	-3.9%
Alabama	$5,050,045,418	$6,514,682,972	29.0%
Kentucky	$5,739,688,880	$5,262,783,653	-8.3%
Mississippi	$1,992,954,591	$2,318,091,322	16.3%
Tennessee	$7,291,088,993	$7,158,413,097	-1.8%
Total East South Central	$20,073,777,882	$21,253,971,044	5.9%
Arkansas	$2,946,678,222	$2,557,873,671	-13.2%
Louisiana	$4,162,561,433	$7,938,032,742	90.7%
Oklahoma	$4,930,094,172	$4,677,171,075	-5.1%
Texas	$44,372,721,079	$69,267,224,475	56.1%
Total West South Central	$56,412,054,906	$84,440,301,963	49.7%
TOTAL SOUTH	$160,138,037,601	$186,072,033,878	16.2%
Arizona	$8,158,998,072	$7,353,538,141	-9.9%
Colorado	$7,428,685,949	$7,998,965,930	7.7%
Idaho	$1,840,211,092	$1,776,013,170	-3.5%
Montana	$1,317,341,255	$1,246,893,642	-5.3%
Nevada	$4,797,214,575	$5,361,825,723	11.8%
New Mexico	$1,915,193,645	$2,151,654,459	12.3%
Utah	$5,708,107,823	$4,212,677,555	-26.2%
Wyoming	$907,756,544	$4,039,790,768	345.0%
Total Mountain	$32,073,508,955	$34,141,359,388	6.4%
Alaska	$1,469,939,079	$957,884,389	-34.8%
California	$36,926,916,452	$32,462,079,781	-12.1%
Hawaii	$2,142,594,067	$1,837,770,172	-14.2%
Oregon	$5,492,863,106	$4,586,976,972	-16.5%
Washington	$11,369,177,124	$16,845,931,353	48.2%
Total Pacific	$57,401,489,828	$56,690,642,667	-1.2%
TOTAL WEST	$89,474,998,783	$90,832,002,055	1.5%
TOTAL U.S.	$403,506,858,856	$421,760,667,910	4.5%

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

Source: ConstructConnect/Table: ConstructConnect.

TABLE 5: VALUE OF U.S. NATIONAL CONSTRUCTION STARTS — OCTOBER 2019 — ConstructConnect®
BILLIONS OF CURRENT $S, NOT SEASONALLY ADJUSTED (NSA)

	Latest month actuals			Moving averages (placed in end month) 3-months			12-months			Year to Date.	
	Aug 19	Sep 19	Oct 19	Aug 19	Sep 19	Oct 19	Aug 19	Sep 19	Oct 19	Jan-Oct 2018	Jan-Oct 2019
Single Family	17.051	16.972	16.719	17.426	17.181	16.914	15.987	15.998	15.954	176.465	165.489
month-over-month % change	-2.7%	-0.5%	-1.5%	-0.2%	-1.4%	-1.6%	-0.5%	0.1%	-0.3%		
year-over-year % change	-5.3%	0.8%	-3.0%	-5.1%	-2.8%	-2.6%	-6.6%	-6.6%	-6.8%	3.2%	-6.2%
Apartment	7.419	7.296	6.408	6.604	6.862	7.041	7.118	7.070	6.848	78.520	66.661
month-over-month % change	26.4%	-1.7%	-12.2%	12.5%	3.9%	2.6%	-0.9%	-0.7%	-3.1%		
year-over-year % change	-9.8%	-7.3%	-29.4%	-19.7%	-13.0%	-16.1%	-11.4%	-11.1%	-12.8%	-23.2%	-15.1%
TOTAL RESIDENTIAL	24.470	24.268	23.127	24.031	24.043	23.955	23.104	23.068	22.802	254.985	232.150
month-over-month % change	4.6%	-0.8%	-4.7%	3.0%	0.1%	-0.4%	-0.6%	-0.2%	-1.2%		
year-over-year % change	-6.7%	-1.7%	-12.1%	-9.6%	-5.9%	-7.0%	-8.2%	-8.1%	-8.7%	-6.7%	-9.0%
Hotel/Motel	1.179	1.550	1.535	1.430	1.390	1.421	1.764	1.705	1.648	22.626	16.174
month-over-month % change	-18.2%	31.4%	-0.9%	-7.9%	-2.8%	2.3%	-2.0%	-3.3%	-3.3%		
year-over-year % change	-27.1%	-31.2%	-30.8%	-15.7%	-25.9%	-30.0%	-18.9%	-21.2%	-23.4%	-11.0%	-28.5%
Retail/Shopping	1.238	1.218	0.867	1.336	1.200	1.108	1.351	1.317	1.291	15.949	13.134
month-over-month % change	8.0%	-1.6%	-28.8%	-6.3%	-10.1%	-7.7%	-1.8%	-2.5%	-2.0%		
year-over-year % change	-19.4%	-25.2%	-26.5%	-14.4%	-27.3%	-23.5%	-13.9%	-17.4%	-16.1%	-8.8%	-17.7%
Parking Garages	0.167	0.143	0.187	0.293	0.237	0.166	0.267	0.270	0.270	2.109	2.500
month-over-month % change	-58.2%	-14.8%	31.4%	-10.6%	-19.2%	-30.0%	-0.1%	1.0%	-0.1%		
year-over-year % change	-1.7%	30.4%	-1.8%	56.8%	39.8%	5.7%	-1.1%	2.6%	14.6%	-24.6%	18.5%
Amusement	0.430	0.521	0.664	0.726	0.670	0.538	0.666	0.652	0.607	7.071	5.812
month-over-month % change	-59.4%	21.1%	27.6%	-2.3%	-7.7%	-19.7%	-0.1%	-2.1%	-6.9%		
year-over-year % change	-2.5%	-24.1%	-44.8%	20.3%	26.3%	-30.7%	4.1%	0.6%	-12.3%	6.9%	-17.8%
Office	1.594	2.540	2.938	3.054	2.416	2.357	2.366	2.441	2.460	25.714	25.482
month-over-month % change	-48.8%	59.3%	15.7%	0.2%	-20.9%	-2.4%	-0.6%	3.2%	0.8%		
year-over-year % change	-10.1%	54.6%	8.4%	5.2%	-20.4%	15.4%	-1.1%	3.6%	0.5%	1.5%	-0.9%
Governmental Offices	1.143	0.746	0.856	1.307	1.171	0.915	0.993	0.952	0.948	9.036	9.401
month-over-month % change	-29.5%	-34.7%	14.7%	6.1%	-10.4%	-21.8%	0.1%	-4.1%	-0.4%		
year-over-year % change	1.4%	-39.5%	-4.8%	29.3%	9.9%	-15.8%	24.3%	13.3%	11.5%	-3.9%	4.0%
Laboratories	0.421	0.228	0.107	0.222	0.264	0.252	0.201	0.196	0.186	2.564	1.893
month-over-month % change	190.3%	-45.9%	-52.8%	49.5%	19.2%	-4.7%	10.0%	-2.3%	-5.0%		
year-over-year % change	108.4%	-19.4%	-52.1%	-32.0%	-24.1%	6.6%	-19.6%	-23.3%	-27.0%	2.9%	-26.2%
Warehouse	2.503	1.719	0.855	1.861	1.855	1.692	1.718	1.696	1.590	18.883	16.300
month-over-month % change	86.4%	-31.3%	-50.2%	26.4%	-0.3%	-8.8%	2.5%	-1.3%	-6.3%		
year-over-year % change	25.0%	-13.2%	-59.8%	-4.5%	-10.7%	-17.0%	-1.1%	-3.0%	-10.9%	-0.8%	-13.7%
Misc Commercial	0.867	2.970	0.898	1.204	2.042	1.578	1.289	1.492	1.520	11.105	17.061
month-over-month % change	-62.1%	242.5%	-69.8%	-53.2%	69.7%	-22.7%	3.3%	15.8%	1.8%		
year-over-year % change	132.0%	464.8%	56.7%	-21.5%	103.6%	221.6%	-3.8%	12.6%	26.5%	-30.7%	53.6%
TOTAL COMMERCIAL	9.542	11.633	8.908	11.432	11.245	10.028	10.614	10.722	10.520	115.058	107.757
month-over-month % change	-24.0%	21.9%	-23.4%	-8.7%	-1.6%	-10.8%	0.2%	1.0%	-1.9%		
year-over-year % change	3.2%	12.5%	-21.4%	-2.9%	-4.4%	-2.7%	-5.0%	-4.2%	-5.7%	-7.7%	-6.3%
TOTAL INDUSTRIAL (Manufacturing)	12.125	0.550	1.827	6.668	6.599	4.834	4.557	4.418	4.314	31.117	47.087
month-over-month % change	70.2%	-95.5%	232.1%	-1.6%	-1.0%	-26.7%	15.8%	-3.1%	-2.3%		
year-over-year % change	158.9%	-75.3%	-40.5%	144.9%	142.3%	45.3%	19.2%	42.5%	57.4%	-11.0%	51.3%
Religious	0.134	0.126	0.085	0.126	0.114	0.115	0.156	0.153	0.149	1.770	1.362
month-over-month % change	63.5%	-5.5%	-32.7%	-11.6%	-9.7%	0.9%	-2.1%	-2.1%	-3.0%		
year-over-year % change	-23.3%	-23.8%	-39.4%	-37.8%	-28.4%	-28.2%	-9.1%	-12.4%	-11.9%	-11.1%	-23.0%
Hosptials/Clinics	1.886	1.095	2.270	2.128	1.834	1.750	1.434	1.449	1.535	13.562	15.226
month-over-month % change	-25.2%	-41.9%	107.3%	17.0%	-13.8%	-4.6%	2.1%	1.1%	5.9%		
year-over-year % change	23.4%	20.0%	82.6%	70.2%	64.7%	42.5%	13.4%	16.1%	20.7%	-9.2%	12.3%
Nursing/Assisted Living	0.294	0.644	0.736	0.497	0.559	0.558	0.797	0.788	0.759	8.854	7.350
month-over-month % change	-60.3%	119.2%	14.2%	-29.1%	12.4%	-0.2%	-2.5%	-1.1%	-3.6%		
year-over-year % change	-45.2%	-14.6%	-31.8%	-34.7%	-19.9%	-29.4%	-13.6%	-13.1%	-16.6%	-10.0%	-17.0%
Libraries/Museums	0.092	0.356	0.305	0.306	0.306	0.251	0.289	0.296	0.288	2.388	3.099
month-over-month % change	-80.6%	288.5%	-14.4%	-31.9%	0.0%	-18.1%	-2.5%	2.4%	-2.5%		
year-over-year % change	-49.1%	31.0%	-22.4%	49.0%	45.5%	-10.9%	35.0%	40.9%	28.3%	-27.0%	29.7%
Fire/Police/Courthouse/Prison	0.668	1.016	0.663	0.580	0.718	0.782	0.587	0.638	0.608	6.667	5.857
month-over-month % change	42.6%	52.0%	-34.8%	1.5%	23.7%	9.0%	-2.9%	8.8%	-4.7%		
year-over-year % change	-24.2%	157.9%	-35.2%	-30.9%	-0.2%	2.2%	-7.2%	4.5%	-4.2%	-10.9%	-12.2%
Military	0.347	0.716	1.068	0.350	0.469	0.710	0.416	0.435	0.455	4.145	4.370
month-over-month % change	0.8%	106.2%	49.2%	7.1%	34.0%	51.4%	-2.4%	4.5%	4.5%		
year-over-year % change	-26.4%	45.3%	28.4%	-13.0%	5.0%	18.6%	-0.3%	8.6%	11.2%	3.2%	5.4%
Schools/Colleges	5.646	4.411	4.088	7.554	5.464	4.715	6.048	6.002	5.967	62.345	62.789
month-over-month % change	-10.9%	-21.9%	-7.3%	-10.8%	-27.7%	-13.7%	-0.9%	-0.8%	-0.6%		
year-over-year % change	-10.9%	-11.3%	-9.3%	-3.6%	-10.6%	-10.6%	4.9%	3.4%	3.3%	-0.2%	0.7%
Misc Medical	0.742	0.597	0.801	0.703	0.623	0.713	0.768	0.711	0.709	9.719	6.981
month-over-month % change	39.6%	-19.6%	34.3%	-9.0%	-11.3%	14.4%	0.1%	-7.4%	-0.4%		
year-over-year % change	1.2%	-53.4%	-4.2%	-31.3%	-36.4%	-24.9%	-12.5%	-21.9%	-22.5%	0.6%	-28.2%
TOTAL INSTITUTIONAL	9.808	8.961	10.015	12.245	10.088	9.595	10.496	10.472	10.469	109.451	107.032
month-over-month % change	-14.7%	-8.6%	11.8%	-7.6%	-17.6%	-4.9%	-0.8%	-0.2%	0.0%		
year-over-year % change	-9.5%	-3.0%	-0.4%	-2.2%	-3.3%	-4.5%	2.3%	2.0%	1.6%	-3.7%	-2.2%
Misc Non Residential	0.549	0.497	1.014	0.555	0.532	0.687	0.543	0.537	0.563	6.278	5.830
month-over-month % change	-0.2%	-9.6%	104.1%	3.8%	-4.1%	29.0%	0.5%	-1.2%	5.0%		
year-over-year % change	6.9%	-13.4%	45.9%	-22.1%	-15.3%	15.6%	-11.2%	-10.1%	-6.9%	-6.0%	-7.1%
TOTAL NON-RES BUILDING	32.024	21.640	21.764	30.900	28.464	25.143	26.210	26.149	25.867	261.904	267.706
month-over-month % change	0.9%	-32.4%	0.6%	-6.6%	-7.9%	-11.7%	2.2%	-0.2%	-1.1%		
year-over-year % change	26.7%	-3.3%	-13.5%	11.5%	11.4%	3.6%	1.3%	3.9%	4.2%	-6.4%	2.2%
Airports	0.656	0.563	0.794	0.714	0.709	0.671	0.602	0.603	0.580	6.530	6.221
month-over-month % change	-27.8%	-14.2%	41.1%	-1.4%	-0.7%	-5.4%	0.6%	0.1%	-3.8%		
year-over-year % change	6.6%	1.3%	-25.5%	30.5%	18.7%	-10.0%	-35.7%	-1.7%	-2.4%	-45.3%	-4.7%
Roads/Highways	5.562	4.609	4.533	6.605	5.916	4.901	5.215	5.229	5.254	55.673	55.464
month-over-month % change	-26.6%	-17.1%	-1.7%	-7.0%	-10.4%	-17.1%	-1.5%	0.3%	0.5%		
year-over-year % change	-14.7%	3.7%	7.2%	-0.1%	-2.6%	-3.2%	5.6%	4.9%	3.8%	15.9%	-0.4%
Bridges	2.080	2.538	1.736	2.276	2.211	2.118	2.176	2.169	2.151	20.554	22.334
month-over-month % change	3.3%	22.0%	-31.6%	-1.7%	-2.9%	-4.2%	2.7%	-0.4%	-0.8%		
year-over-year % change	50.5%	-3.5%	-11.0%	24.9%	13.4%	6.6%	22.5%	16.1%	10.1%	15.9%	8.7%
Dams/Marine	0.456	0.531	1.047	0.715	0.513	0.678	0.705	0.687	0.684	5.571	7.138
month-over-month % change	-17.2%	16.5%	97.1%	-42.9%	-28.3%	32.3%	-2.0%	-2.7%	-0.3%		
year-over-year % change	-27.4%	-29.7%	-2.5%	38.5%	-19.3%	-17.2%	48.4%	33.4%	23.0%	39.8%	28.1%
Water/Sewage	2.155	2.486	2.394	2.591	2.559	2.345	2.454	2.503	2.498	25.423	25.759
month-over-month % change	-29.0%	15.4%	-3.7%	-9.0%	-1.2%	-8.4%	0.1%	2.0%	-0.2%		
year-over-year % change	2.0%	31.1%	-2.4%	8.6%	16.0%	8.9%	1.7%	4.5%	3.7%	-11.0%	1.3%
Misc Civil (Power, etc.)	9.202	3.975	6.423	5.733	4.904	6.533	3.026	3.139	3.452	27.853	37.140
month-over-month % change	499.6%	-56.8%	61.6%	40.1%	-14.5%	33.2%	30.0%	3.7%	10.0%		
year-over-year % change	1032.2%	51.9%	141.1%	277.9%	256.7%	221.6%	5.3%	14.4%	22.7%	36.1%	33.3%
TOTAL ENGINEERING (Civil)	20.111	14.701	16.926	18.633	16.810	17.246	14.178	14.329	14.620	141.603	154.055
month-over-month % change	28.8%	-26.9%	15.1%	1.7%	-9.8%	2.6%	5.0%	1.1%	2.0%		
year-over-year % change	66.6%	14.0%	26.0%	39.1%	31.0%	34.7%	5.7%	9.2%	9.2%	8.3%	8.8%
GRAND TOTAL	76.605	60.610	61.817	73.564	69.317	66.344	63.493	63.546	63.289	658.492	653.911
month-over-month % change	8.3%	-20.9%	2.0%	-1.6%	-5.8%	-4.3%	1.7%	0.1%	-0.4%		
year-over-year % change	20.5%	1.1%	-4.8%	8.6%	8.4%	5.6%	-1.5%	0.3%	0.2%	-3.7%	-0.7%
NON-RES BLDG + ENGINEERING	***52.135***	***36.342***	***38.690***	***49.533***	***45.275***	***42.389***	***40.389***	***40.478***	***40.486***	***403.507***	***421.761***
month-over-month % change	***10.1%***	***-30.3%***	***6.5%***	***-3.7%***	***-8.6%***	***-6.4%***	***3.1%***	***0.2%***	***0.0%***		
year-over-year % change	***39.6%***	***3.0%***	***0.3%***	***20.5%***	***18.0%***	***14.3%***	***2.8%***	***5.8%***	***6.0%***	***-1.7%***	***4.5%***

Source: ConstructConnect/Table: ConstructConnect.