2017 Construction Forecast
A Post-Election Update
# Table of Contents

I. Architecture: The Root of Construction Growth 4  
II. What does the future look like? 6  
III. 2020 Vision 8  
IV. Conflicting Indicators 10  
V. Overall Economy 12  
VI. Election Year Brings Uncertainty 14  
VII. Labor 16  
VIII. Other Variables 19  
IX. An Economic Breakdown of Various Sectors 22  
X. Want to look at what the numbers are saying today? 28
What’s on tap for construction’s economic fortunes in 2017? Based on the views of experts we included here, it looks like overall construction activity will be slower. And, while the experts didn’t have definitive guidance on what to expect with the recent political changes, they did weigh in on policies to watch and explained how labor, trade, regulation, and investment might affect construction businesses in the coming year.

This report is based on a ConstructConnect webinar that was broadcast on November 17, 2016 and also includes perspectives from the Equipment Leasing and Finance Foundation.

**Overall Construction Growth, Average of Forecasts - 5.65%**
Kermit Baker, Chief Economist for the American Institute of Architects, reported on the movement in the Architectural Billings Index, which uses architect business indicators to foretell the rise and fall in construction cycles. He said the index was trending down over the past year dropping 2.2 points from the 2014 average. Baker also noted the index declined in August 2016, followed by a further decline in September. There was a slight upward bump in October, but Baker characterized recent movements in the index as “not terribly strong.”
In terms of outlook for 2017, one reading on this is a recent survey that we did on architecture firms just this past month. We asked them what their best estimate was for revenue at their firm in 2017 relative to what they’re expecting to come in 2016,” Baker said. “(A) little over 40% of firms are expecting fairly significant growth this year, that would be growth of 5% or more in revenue. About a quarter of firms are expecting a fairly significant decline this coming year..., and a third are expecting revenue to be about the same in 2017 as they are estimating it’ll come in in 2016.”

“So when you add all of that up that translates to just 2% projected growth in design revenue for 2017. Nearly half the pace of growth that firms are expecting for 2016. So overall, generally slower growth is projected for architecture firms for the coming year,” said Baker.

On the plus side, Baker said new design contracts have been more positive over the past couple of years, meaning firms are building up their backlogs. He cautioned though that a relatively rare decline in October’s new design contracts hinted of volatility for the coming few quarters. He added that among the major construction sectors there were no “strong growth performers.”

In fact, he said residential which had been performing strongly in the index had now slipped into barely positive territory, commercial industrial which had been tracking in the low 50s was just barely above 50 from August through October, and the institutional index was quite volatile in recent months.
II. What does the future look like?

Baker said the AIA asked a panel of forecasting experts during the summer to weigh in on where they saw the construction markets headed. They projected moderate growth in the mid, single-digit rate range for 2016 as well as 2017.
"The institutional market has had some problems moving into full recovery phase," said Baker. "If trends continue that we’ve seen through the first three quarters (total nonresidential spending) is likely to come in at about 5% growth overall this year, with about twice that rate on the commercial industrial side, and probably less than half that rate for institutional construction spending. So, there are still some gaps in terms of the major sectors."

Noted by Baker: “These were pre-election forecasts, (and) it’ll be curious to see what our panelists say the next time we talk to them about what impact the election will have on the construction industry.” He said the AIA would check in with the forecasters in December.

Construction spending growth is expected to be the greatest in the South and Mountain states. Growth has slowed in some sectors in 2016 as compared to 2015 with 36% of construction sectors seeing declines in spending.

+ Manufacturing down 2.4%
+ Public Safety down 8.1%
+ Transportation down 5%
+ Communication down 4%
Alex Carrick, Chief Economist with ConstructConnect, reported the ConstructConnect/Oxford Economics construction forecast through 2020 as restrained and conservative, with a value of construction starts growing about $25 billion in 2017, over 2016.
For U.S. construction put in place, when comparing YTD 2015 to YTD 2016, Carrick reported that the three major categories, overall construction, nonresidential construction, and residential construction all show signs of slowing down. He also pointed out that 14 of the 16 construction subcategories have also been slowing down, and that includes categories like healthcare, education, transportation, etc.

“Construction really has not come back as one would have expected, particularly over the last six months or so it seems like construction has really gone into hibernation here,” says Carrick. He went on to say that ConstructConnect’s own analysis of the market is more bullish than what shows up in the put-in-place numbers.

The ConstructConnect/Oxford Economics construction starts forecast for 2016 was cut back from 7.9% growth to 6.2% growth. And then, the 2017 forecast calls for 6.8% growth followed by 6.2% in 2018. From there the picture is one of rather steep declines with 2019 having growth of 4.3%, and 2020 with 3.7%.
IV. Conflicting Indicators

Ken Simonson, Chief Economist with the Associated General Contractors of America, said he thought this year’s total spending will not rise as rapidly as next year, and in the mid, single-digit range. Next year, he said, construction spending will come in just a bit higher, but not as strong as in 2015.
He emphasized that the lack of definitive statements from the incoming presidential administration, and uncertainty about congressional direction made it too early to draw conclusions about the future effects of legislation on the industry.

“So my presentation does not reflect any change from what I had prepared before the election,” Simonson said.

Simonson also said statistics from the Census Bureau and Bureau of Labor Statistics suggest that construction paused during the last six months, even though the association’s contractor members still claim to have full order books. Contractors were also not reporting canceled projects. “So there does seem to be a disconnect between the data and what people are experiencing in the field,” Simonson said.
V. The Overall Economy

Alex Carrick posed two questions to address the forecast for the overall U.S. Economy:
1. Will the economy continue to stay at 2%?
2. Will the change in administrations add a boost to the economy?
“The problem is you don’t know whether to take the proposals that are being offered literally, and I don’t think most people do take them literally,” Carrick said. “So you’ve got to adjust them somewhat, but then you also look at where there may be positives for GDP growth and construction, and that would be things like tax cuts, infrastructure spending, and scaling back regulations.”

“However, some things that at first might be considered positive, could generate negatives, like bigger deficits and debt, higher interest rates, and even a stronger dollar which could limit exports. So it’s (going to) take a while for all this to sort out.”

One indicator that feeds into the national economic picture is the amount of financing businesses use for software and equipment of all types. In October, the Equipment Leasing and Finance Foundation reported a significant increase since 2012 in the amount of financing firms are using for software and equipment. The U.S. Equipment Finance Market Study: 2016-2017 cited “excess global capacity, low commodity prices, a strong dollar, sluggish export markets, and the collapse in drilling for oil and natural gas as main factors holding back capital investment.”

The Equipment Leasing and Finance Foundation also forecasted a sharp decline in equipment and software investment during 2016, and said it expected construction machinery investment to rebound modestly over the next two quarters.

Also, foretelling more sluggish growth was Caterpillar’s downward revision of its revenue estimates for 2016. The company’s revenue reports are considered by economists to be a key indicator of growth for a number of industries, including construction. Caterpillar attributed the decline to lower demand from the construction, extraction, and energy industries.
Election Year Brings Uncertainty

AIA’s Baker highlighted key items that he saw affecting construction in the coming year, noting that trade policy would affect building materials and products prices. “I think we’re likely to see higher prices for imported materials and prices, and domestic products are likely to be a little more insulated, (with) a little less competition,” he said.
Baker noted immigration policies will have a direct effect on the construction industry’s labor issues, changes in tax codes could reduce corporate tax burdens and spur more investment, and while spending on infrastructure would bring more construction work, it may exacerbate the labor problem. He also said the reliance on private funding for infrastructure projects could work in some areas, but not across the board. AGC’s Simonson added more detail to that during his presentation saying he didn’t think Wall Street or the investment community fully understood how private funding would work for many infrastructure projects.

If regulations are reduced, Baker thought it could lower construction costs and speed up processes, and he thought a rollback in financial regulations could loosen up available capital, but there is still a big question mark related to the housing secondary mortgage markets like Fannie Mae and Freddie Mac.

“I think the general rule is that elections usually resolve the uncertainty that’s out there,” Baker explained. “I think in this case there are still a lot of unknowns that will extend this period of uncertainty. A lot of the industries still are not sure exactly what measures are (going to) be in place that will affect the construction outlook.”
Labor availability remains a concern, and is likely to get worse before it gets better. The industry is nearing recovery, but the labor force is not. The number of employed construction workers is about 1.6 million fewer than it was in 2007 and there’s little potential to grow in the near term since the unemployment rate for the industry is very low. So it’s going to be more difficult to find workers.
The worker composition is not favorable to growth because of a disproportionately lower share of women and younger workers. Construction's historical reliance on immigrant workers is also a continual issue due to lack of a favorable immigration policy.

Baker reported that the AIA asked architectural firms what impact the construction labor shortage was having on them in terms of the number of contractor bids and the pricing of bids. About a third of firms were seeing fewer bids and higher prices on most projects, a third saw fewer bids and high prices on some projects, and the final third said they didn’t notice any change. Contractors told the AIA they were taking more conservative approaches to the schedules so they could avoid project delays caused by labor shortages.
Simonson said that AGC surveys done in recent years consistently show that contractors are having trouble filling a wide variety of positions. Construction employment has risen about 3.4% over the last year, while total nonfarm payroll employment is only up by half as much, giving the impression that contractors are having no trouble finding employees. But that assessment is a mixed bag.

There are many areas of the country where construction employment growth is in the double digits, yet contractors can’t find the workers they want. This often reflects local conditions related to demand, but in other instances contractors aren’t hiring because they can’t make do with less qualified workers. So, the growth in construction employment is coming from contractors hiring less experienced workers while positions for more highly qualified individuals go unfilled. 69% of contractors responding to AGC’s survey reported having difficulties filling all hourly craft positions. Contractors also reported having difficulty filling the following positions:

- 60% Carpenters
- 53% Qualified electricians
- 50% Plumbers and roofers
- 50% Project managers and supervisory positions

Construction firms are battling the shortages by raising base pay, providing incentives and bonuses, and spending more on in-house training. Almost half of firms are paying overtime due to the labor shortages, and they are keeping job openings posted longer.

“Companies are going to have to start raising pay,” Simonson said. “Overall indexes indicate it hasn’t happened very much yet, but I think that’s because they’re hiring so many people with (little to no experience) which is depressing the average. But soon, I think, even wages at the entry level will be rising, partly because of local minimum wage laws, but also because there just isn’t a big pool of people coming into the workforce.”
VIII. Other Variables
Input Prices
The producer price indexes for several key construction inputs have shown declining prices since 2011. However, a few other items have risen this year and are expected to continue costing more. These items include cement, gypsum products, and flat glass. Simonson said he thought the decline in material prices is over, and companies would see a little increase, probably flat for this year as a whole, though maybe a little higher.

Owner Alternatives to Building
ConstructConnect’s Carrick explained that owners now have more options than ever to not build. He cited examples of how technology is offering alternatives to the cost and overhead of buildings by providing new ways to do things that don’t require buildings. Security ankle bracelets reduce the need for prisons, internet banking reduces the need for built banks, and the growing work-at-home, freelance workforce reduces the need for office space.

Online learning, health services dispensed in supermarkets, and streaming television services all displace the need for additional structures in the built environment.

The Logistics Card
The world is becoming more and more about moving things so, according to Carrick, for countries it means using logistics to improve productivity to stay ahead.

Residential: Overall sector average of forecasts - 8.15% growth
Single Family - Average of forecasts 8.65%
Multifamily - Average of forecasts 10.25%
“There is still tremendous potential for residential construction,” said ConstructConnect’s Carrick. By the end of 2017, residential construction starts are predicted (by ConstructConnect/Oxford Economics) to be at a level similar to mid-year 2007, or about $280 billion. Housing, however, may encounter headwinds with rising lumber prices coming from protectionist trade policies. And, while the demand for move-up housing is expected to remain flat, there is growing expectation that the millennial generation will soon provide at least some boost to new home sales. Optimism, however, is tempered by the amount of debt millennials already have, and many appear to prefer living in downtown areas where single family homes are practically nonexistent.

Single family residential is predicted by ConstructConnect/Oxford Economics to grow almost 10% in 2017, while multifamily is projected to grow at 5.5%.

Nonresidential: Overall sector average of forecasts - 5.6% growth

Commercial - 6.5% growth over 2015 numbers
IX. An Economic Breakdown of Various Sectors
Retail
Look for about a 3% increase in the dollar value of retail starts in 2017. Retail’s employment numbers have held, according to Carrick, but technology’s effects are happening faster now, foretelling greater changes in this sector’s fortunes. AGC’s Simonson said he was surprised by retail’s strength over the past year in light of major chains closing so many stores. He said the strength in retail appeared to be in renovation of closed spaces, and adding retail to mixed use developments. He predicted very small growth for retail in 2017.

Lodging/Hotel/Motel
This sector has been doing well for many years but is slowing down a little bit. However, value put in place is still high. Simonson thought though that in 2017 or by 2018, lodging could begin entering negative territory. He predicted no growth for 2017.

This is one of the strongest categories for structures put-in-place in 2016, but the ascent is nearing the end of its run, according to ConstructConnect/Oxford Economics statistics. The leveling off is foreshadowed by the difference in starts from 2015 and 2016. While 2015 starts were up 50%, 2016 starts were only up about 10%. A strong U.S. dollar is having an effect by lowering international tourism. This category is expected to grow not quite 2% in 2017.

Amusement
This category is predicted to grow in 2017 by 7.5%, according to ConstructConnect/Oxford Economics. As low unemployment takes hold, more people have more money to spend on entertainment which leads to more amusement construction.
Office
This continues as a strong category even though it is highly cyclical like hotel/motel. Part of the reason for its strength though lies in the new configurations developers are using in the mixed use category of which office figures prominently. Private office is projected to grow by 15% in 2017 while government is projected at 6%. Simonson said office construction had also surprised him with strong growth in 2016 with multi-use or office projects co-located with other types of buildings rather than out on their own.

“I think that there’s still some legs for that to continue happening, and those inside city projects, whether they’re taking over historic old buildings and repurposing them, or clearing off lots in order to put in buildings, they tend to be very expensive,” Simonson explained. “And that pushes up this value put in place even though the square footage that’s being added may not be as much.”

Simonson also pointed out the changing workforce where more people are contract workers rather than employees is also fueling the need for companies to reassess their square footage per employee. He said the nature of office construction will continue to evolve toward more density, and city based projects.

Warehouse
Carrick sees a continuation into 2017 of the big jump in warehouse construction that started in 2014. The category is projected by ConstructConnect/Oxford Economics for 4% growth in 2017. “We see this as continuing to be a source of strong demand,” Carrick said. Simonson noted warehouse construction as holding up very strongly with giant fulfillment and distribution centers leading the way. He also called out the increase in “click and collect” centers where people can order online and pick up the same day. He predicted warehouse construction in 2017 would focus more on smaller structures.

Institutional - Overall sector average of forecasts calls for 5.2% growth
Hospital/Healthcare
This category has been very flat since the Affordable Care Act was enacted, and with recent political changes there is more uncertainty. However, hospital is forecast for 9% growth in 2017 by ConstructConnect/Oxford Economics. The healthcare sector is generating a lot of jobs, according to Carrick, and he said the nursing home and extended care facilities sector should grow even more strongly after 2025. Simonson said the rhetoric about repealing the Affordable Care Act might pause hospital construction until administrators understand the results of changes in the law.

Education
The demographics don’t support education construction, especially college and university level, according to Carrick. Strength will come from joint research projects involving healthcare and education, and from alumni donors who want to be memorialized. The value of starts in education construction is expected to grow 6.5% in 2017.

Ken Simonson of AGC said this sector should modestly improve in 2017 because of successful bond issues passing in a number of states. He thought construction activity would increase in K-12 schools, but that higher education construction might be weaker due to state budget constraints. So, overall moderate growth for education in 2017.

Industrial - 11.1% growth
Manufacturing
Described as having headwinds, Carrick explained the category is volatile due to the mix of variables that affect it. However, for the total industrial sector the ConstructConnect/Oxford Economics forecast calls for 11% growth in 2017 after a more than 25% decline in 2016.

AGC’s Simonson characterized manufacturing as the strongest construction category in 2015, saying it was up 33%, but was down in the first nine months of 2016, compared to the first nine months of 2015. He attributed the drop to the completion of a string of very large projects without a corresponding increase in new projects. He said a stronger dollar, and favorable trade policies might tempt more companies to build manufacturing facilities in the U.S., and he expected a potential modest uptick in manufacturing construction by 2019.

Civil/Engineering/Heavy - 5.1% growth

Highway, Road & Bridge
Government spending is going to drive the bulk of this, and much depends on not only the willingness of politicians to tackle infrastructure issues, but also the project methods chosen. Tax and economic policies also come into play, making this category more volatile when there isn’t federal money. ConstructConnect/Oxford Economics predicts roads spending to be up 5.4% in 2017, while bridge spending is projected for almost 7% growth.

AGC’s Simonson said highway spending was a little bit behind the numbers from 2016, and noted that was surprising since the passing of the FAST Act in December 2015. He said the funding for highways helped to add certainty for states that highway funding would be in place into 2020. However, FAST didn’t provide any permanent increase in funding sources causing uncertainty about how much money the federal government will supply for highways. His assessment for 2017 was that there would be moderate increases in highway spending coming more from state tax increases, bond issues, ballot initiatives, and a limited increase in public private partnerships.
Civil
This category which includes roads and bridges, but also airport, dams, canals, marine, power, and water and sewage, is projected to grow 5.1% in 2017, according to ConstructConnect/Oxford Economics.

Power
Simonson pointed out a 16% downturn in the power category from 2014 to 2015 was attributed to a drop in building coal-fired power plants along with a steep drop in oil and gas drilling, which relies heavily on construction to prepare drill sites. On the plus side, he cited the extension of wind and solar tax credits, and an increase in construction of natural gas electric generation stations. Overall though, he thought the power category would end up in 2016 on the positive side, and saw growth in 2017.

Transportation
Simonson said this category included all modes other than highway, like airports, rail and ports. He said the next few years should see airports dominate as airports across the country go through renovations to increase capacities, and expansions on the aircraft movement side. He also noted he didn’t expect passenger, transit, and passenger rail to show much growth.
X. Want to look at what the numbers are saying today?
Procore’s *Construction Health Indicator* takes a daily pulse of the construction industry. Check out what labor, commodities, and investments look like across the country and within each region, in real time.

**Find out what the score is today.**
Procore Technologies, Inc., the world’s most widely used construction management software, helps construction firms simplify their processes with an easy-to-use, mobile-enabled platform providing unlimited user licenses and renowned customer support. Understanding the industry’s unique needs, Procore’s user-centric product development ensures more efficient project, quality, and financial management, helping companies increase collaboration, build times, and profit.

For more information or a free demonstration visit www.procore.com.

If you have any questions, please give us a call at 1.866.477.6267 or email us: sales@procore.com