

# CONSTRUCTION CYCLES

BY JOHN CROSS, P.E.

Despite how the construction market looks “on paper,” predicting its behavior is by no means an exact science.

**“WHO IS GOING TO WIN** this year’s Super Bowl?” may be the question on many minds as summer gives way to fall.

But for those in the construction industry the real question is “What will 2014 and beyond look like for building construction?” Regretfully, it is probably easier to pick the winner of Super Bowl XLVIII than to predict building construction activity over the next several years.

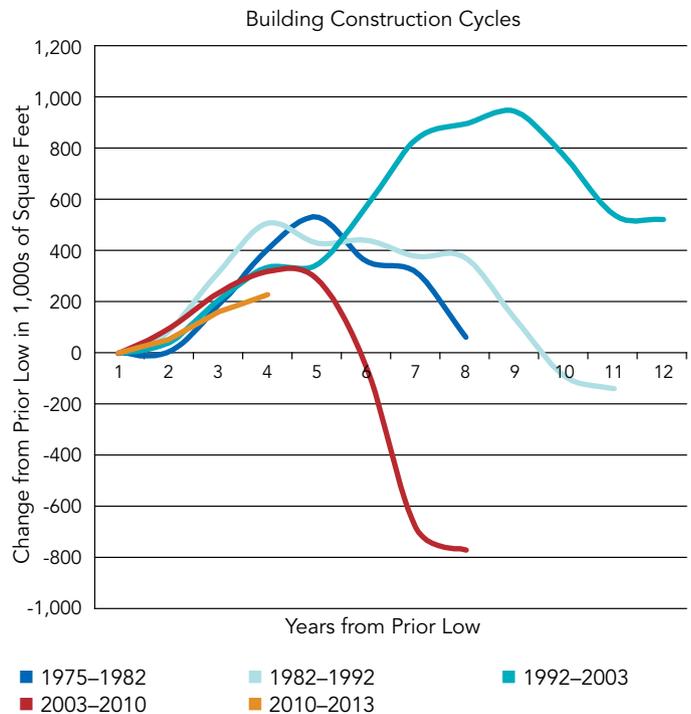
Construction volumes for nonresidential and multi-story residential buildings in 2013 have increased by approximately 8% over the similar period in 2012. It is anticipated that this growth rate will continue or slightly increase during 2014. While a growth rate of 8% to 10% seems quite healthy, keep in mind that this growth is still occurring from a very low base. (Remember, from 2006 to 2010 the construction market dropped 62%.) Even if growth continues at an 8% pace during the remainder of 2013, 2013 activity will still be only half of what it was in 2006. The market has regained only 12 points of the 62 points it lost. Even if the market grows by 10% in 2014, this means the market would still be down 45% from the peak.

The predictive model followed by AISC since 2008 has been based on gross domestic product (GDP) and employment levels. The premise of that model has been that limited growth will occur when both GDP and employment growth are positive, but that annualized GDP growth must exceed 3% and the number of employed persons must exceed previous peak employment levels for robust growth. Since 2010 GDP growth has averaged in the range of 2% with slow growth in employment not yet reaching the total number of employed persons in 2007.

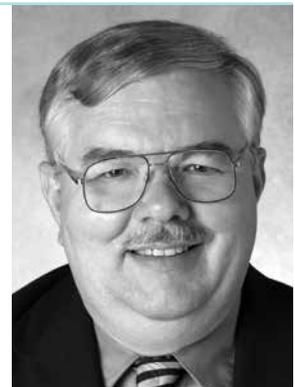
The continuing slow growth in construction next year is predicated on a continuing GDP growth rate of less than 3% (current 2014 predictions for U.S. GDP are averaging between 2.5% and 3.0%, with the majority of the growth coming late in the year) and U.S. employment not regaining 2007 levels until mid-2014 (as of September 2013, U.S. employment is still 1.8 million jobs below the 2007 peak of 138 million). In other words, we’re looking at a recovery that is proceeding slower than earlier recoveries.

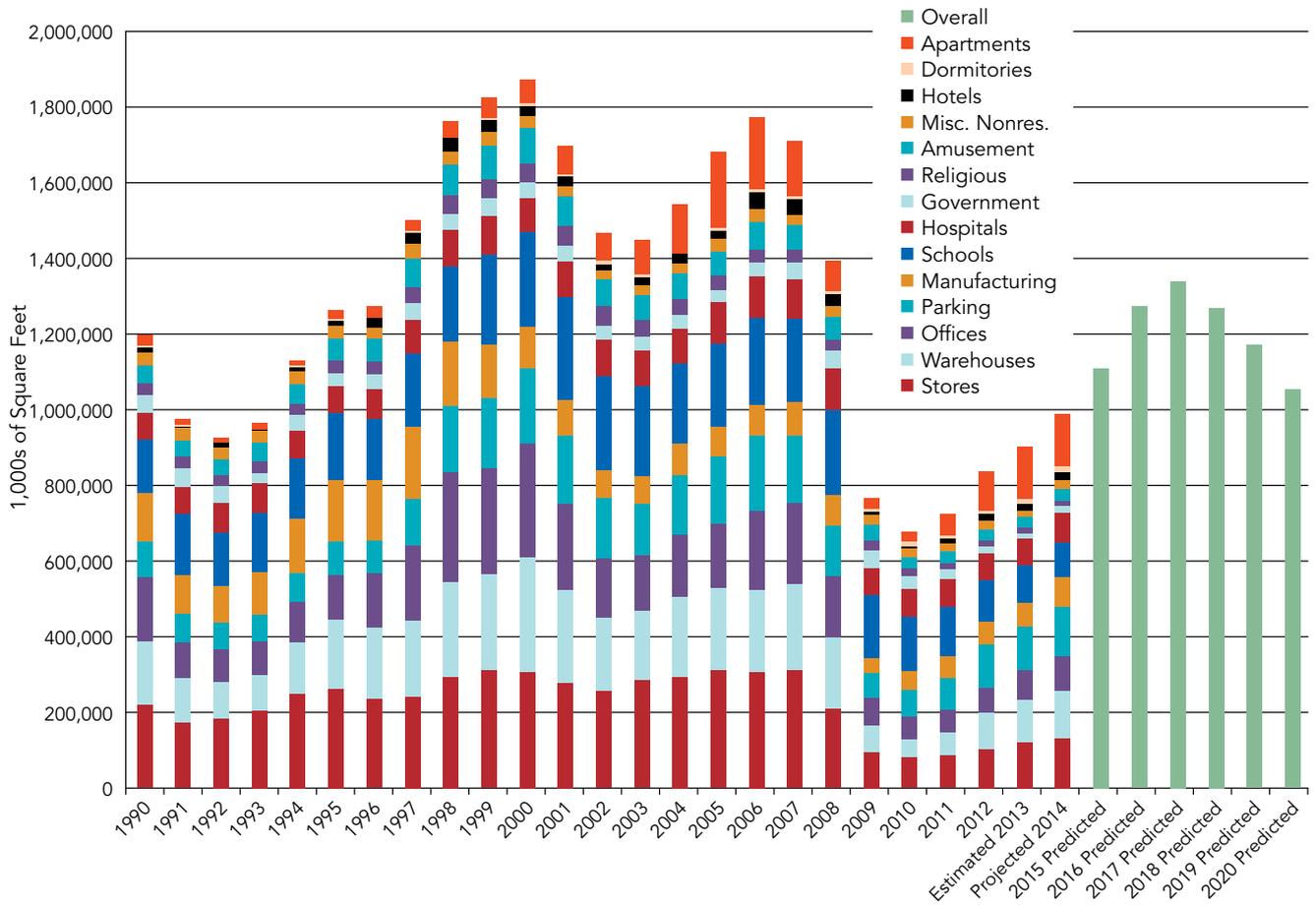
The following table on building construction cycles, while perhaps somewhat confusing, visually depicts typical construction cycles. Rather than graphing absolute building construction in square feet, the chart presents the change in construction square footage from the prior trough or low point. In doing so, the cyclical pattern of building construction activity can be clearly seen. Historically, building construction cycles last about eight years, returning to a low point of approximately 900 mil-

lion sq. ft. of construction starts per year. The major exception to that pattern was the cycle from 1992 to 2003 (the green line on the chart), which lasted 12 years before dipping to a low point in 2003 of 1.4 billion sq. ft. which was 50% higher than earlier troughs. The next cycle from 2003 to 2010 (red) then followed a similar growth pattern, but then fell quickly in 2008 through 2010 to a historic low of 686 million sq. ft.



**John Cross** is an AISC vice president. You can reach him at [cross@aisc.org](mailto:cross@aisc.org).





In fact, it has been argued that the infusion of consumer spending that originated from mortgage refinancing actually short-circuited the expected down-cycle in 2003, creating a false peak in 2006 and 2007. The secondary impact was that the significantly lower trough in 2009 and 2010 was the result of over-construction during the false peak of 2006 and 2007. In a real sense, the false peaks of 2006 and 2007 dug an even deeper hole for the construction economy to climb out of.

The cycle that the construction industry now finds itself in (purple) is increasing at the slowest rate of any of the prior cycles. This slow growth rate is directly related to the slow growth rate in GDP and job creation. This will result in a lengthening of the time it will take construction activity to reach its next peak, which will probably occur in the 2016 to 2017 time frame. Once GDP growth accelerates and employment reaches previous levels, the

growth rate for building construction will accelerate as well to a new peak in the range of 1.3 billion sq. ft of construction starts.

So what will this look like graphically in terms of building construction volume? (See the table above.)

The bottom line? Next year will look a great deal like this year. Construction activity will accelerate further in 2015 and 2016 to a peak in 2017 approximately 25% below the peak of 2006. A cyclical downturn will occur once that peak is reached. And it must be remembered that just like challenges that injuries, unmet expectations, missed field goals and chance plays can create for predicting the winner of the next Super Bowl, a variety of external factors can quickly derail any prediction of building construction activity! No football team wins the Lombardi Trophy one or two games into the season, and no prediction of construction activity is a sure bet.

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