Think Long-Term

BY JOHN P. CROSS, P.E.

The economy isn't out of the woods yet, but the design and construction industry can use this down time to its advantage for when building starts growing again.

CONSTRUCTION STARTS IN THE FIRST QUARTER of 2009 for non-residential and multi-story residential buildings plunged to their lowest level in 40 years—which came as no surprise to building designers and contractors.

The trifecta of available financing, growing unemployment, and a reduction in both business and consumer spending for goods and services birthed another trifecta, that of a lack of new projects being designed, already-designed projects being placed on hold, and other projects being cancelled outright. During the last quarter of 2008 and the first quarter of 2009, many structural engineering and architectural firms either reduced staff sizes or transitioned to three- or four-day work weeks. AISC's Business Barometer, a quarterly survey of member fabricators, indicated a major increase in projects being place on hold or cancelled beginning in the second quarter of 2008 and peaking in the first quarter of 2009. All of this has left every design and construction professional pondering the short- and long-term outlook for building construction.

The Decline

The 45% reduction in overall building construction starts measured on a year-to-year basis is the result of three major economic events—a third trifecta, if you will. First, the general economy entered a recessionary period during the fourth quarter of 2007. This recession manifested itself in decreased consumer demand for goods and services and was accentuated by rapidly escalating fuel prices. Unemployment levels did not quickly accelerate upward, and construction starts were impacted at a rate consistent with moderate downturns of the past. This was in effect the "initial recession" and by itself would have resulted in approximately a 10% loss of building construction volume during 2008.

Second, the economy suffered a "credit collapse" that occurred at a time when the initial recessionary trend should have been bottoming out. Significant finger-pointing has occurred with respect to the ultimate cause of the credit collapse, but clearly issues surrounding the single-family housing market triggered the events of late 2008. An over-supply of single-family homes, falling housing prices, excessive and risky mortgages, and an overly complex system of risk-sharing derivatives all contributed to the severity of the collapse.

The credit collapse phase triggered significant decline in both consumer and business spending, a rapid increase in the unemployment rate, and a significant drop in the valuation of public corporations including some corporate bankruptcies. This third phase is in effect a "secondary recession," further decreasing the demand for non-residential buildings.

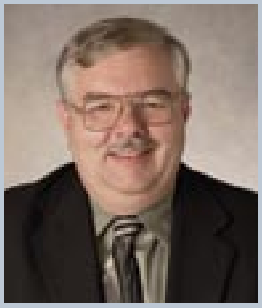
Construction volume will not increase significantly until the problems associated with each of these phases are resolved. Resolution will require addressing the underlying causes of the initial recession, increasing the availability of credit, and reversing the damage done to the economy by the secondary recession, although not necessarily in that order.

Available Credit

Before any recovery from the initial and secondary recession can occur there needs to be a perceived increase in the valuation of public companies and an increased availability of credit. This increased credit availability does not need to be accompanied by a loosening of credit standards, but rather simply an increase in the availability of funds to stable, qualified borrowers. During the spring of 2009 there has been an increase in valuation evidenced by a rebound in stock values, but as of early May the economy has yet to see an increase in the availability of funds from major financial institutions. An increase in the flow of funds into the credit market will probably occur in the third quarter of 2009 and signal the bottoming out of the recession. This increase in credit availability will not initially impact design and construction activity, but will support the continuing commercial business operations and result in positive GDP growth.

Even though the recession will be seen as bottoming out in the third quarter of 2009, national unemployment will not peak until early 2010 and may reach the 10% level at that time. Efforts to limit unemployment through the American Recovery and Reinvestment Act (ARRA) will have had a positive impact in keeping unemployment levels near or slightly above 10%, but will not result in a quick reduction in the unemployment rate.

The stimulus spending from ARRA will not significantly impact the building



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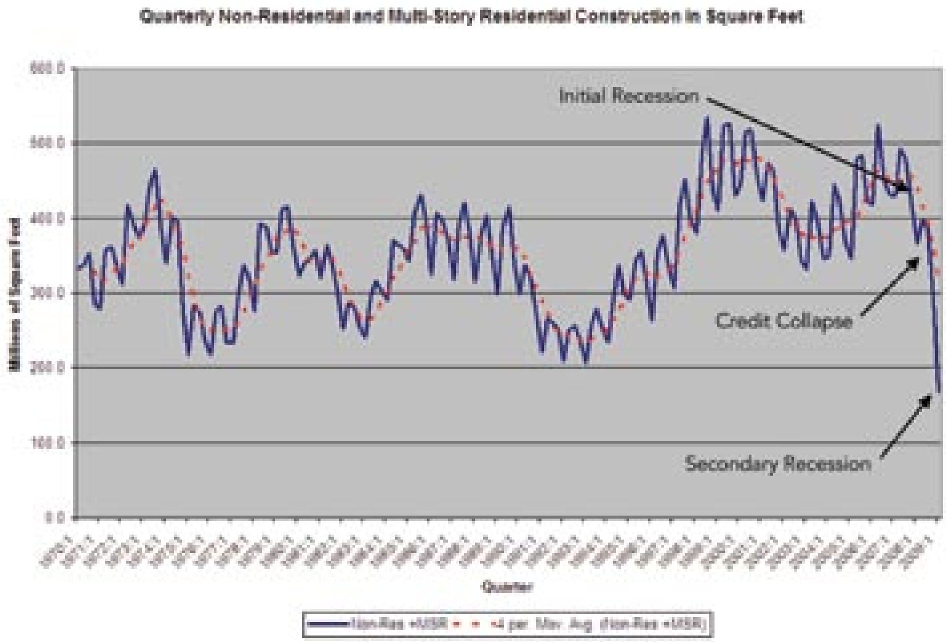

market. As of April 15, 2009, 3,072 projects had been accepted for funding under the ARRA program, using approximately 75% of the funding set aside for construction. Not surprisingly, 2,122 of those projects were for transportation infrastructure, 440 for buildings, and 510 for other infrastructure such as water and wastewater. Of the 440 buildings being funded, 372 were for alterations or interior work, four were additions, and only 64 were actual new structures. These new structures would include smaller structures such as visitor centers at national parks as well as some courthouses and office buildings.

Consumer and Business Spending

Typically, consumer and business spending will lead employment gains, and construction spending will lag employment gains. Increases in spending will translate into more jobs, but significant demand for new construction will not occur until the surplus of space resulting from the downturn is occupied. It is not anticipated that unemployment levels will return to pre-recessionary levels until late 2010 or early 2011. However, it will be important to monitor total employment levels rather than the unemployment rate, as total employment will drive the demand for new construction. This demand and the stabilization of the housing market should stimulate non-residential construction spending during 2011. Initial growth will probably be slow in mid-2011 but should accelerate rapidly into 2012.

It is important to recognize that unlike the single-family home market that was significantly overbuilt, non-residential construction was not in an over-supply condition at the start of the initial recession. The recession being experienced in the non-residential market is the result of a reduction in demand rather than a surplus of supply. Increases in demand at the end of a recessionary period occur more rapidly than the absorption of over-supply, which indicates that once the economy begins to expand, demand for new non-residential construction should ramp up sharply.

Weathering the Storm

The bottom line for the design and construction industry is that activity will not begin to pick up substantially until late 2010 or early 2011 and not return to 2007 and 2008 levels until 2013 or 2014.

During this recessionary period, there are positive steps that designers and builders can take to weather the storm and prepare for the future growth market. Today many successful designers and specialty contractors are approaching owners of projects that have been placed on hold with value-enhancing suggestions and firm price proposals that lower both project costs and the level of risk lenders are being asked to assume. At the same time, designers are integrating specialty contractors early into the design phase of a project to ensure design efficiency and maximum productivity.

Projects in smaller markets being funded by smaller, regional lenders are more likely to move forward with financing than are projects depending on large, national lenders or a combination of lenders. Schools, health-care, and governmental projects seem to have the best chance of moving forward in the current economic climate. Projects involving renovation work, particularly if related to energy-efficiency improvements, are also likely to move forward.

Green in Demand

On that note, projects that focus on sustainable construction will garner a larger share of the overall construction marketplace. Firms that can demonstrate expertise in the area of green design and construction as well demonstrate the implementation of sustainable practices in their operations will attract the majority of this work. Designers and specialty contractors with niche specialization will most likely continue to see a sustaining level of activity during this period.

Firms that resist the "I'm too busy in boom times but don't have the funds in lean times" mindset and instead take the initiative to invest in new technology and the training required to efficiently implement that technology, will be well positioned to win the productivity battle in areas like building information modeling (BIM) and shop automation when a strong market returns. Similarly, firms that continue to invest in developing younger staff will be well prepared for the future.

Ready for the Recovery

There can be little question that these are challenging times for the design and construction industry. A significant turnaround will come, but it will not come quickly. The domestic economy has been significantly battered and will take time (and some intervention) to heal, but the long-term outlook remains positive. Population growth will continue to drive the demand for new non-residential construction. Replacement of older structures with new or renovated sustainable buildings will increase in pace. Domestic GDP will return to growth levels in excess of 3% per quarter, the typical threshold for significant construction activity. And the design and construction industry will emerge from the recession leaner and more efficient in addressing the demands of an expanding economy. MSC