

# MORE IS LESS

BY JOHN CROSS, P.E.

Growth in square footage masks a lack of growth in the number of projects being built.

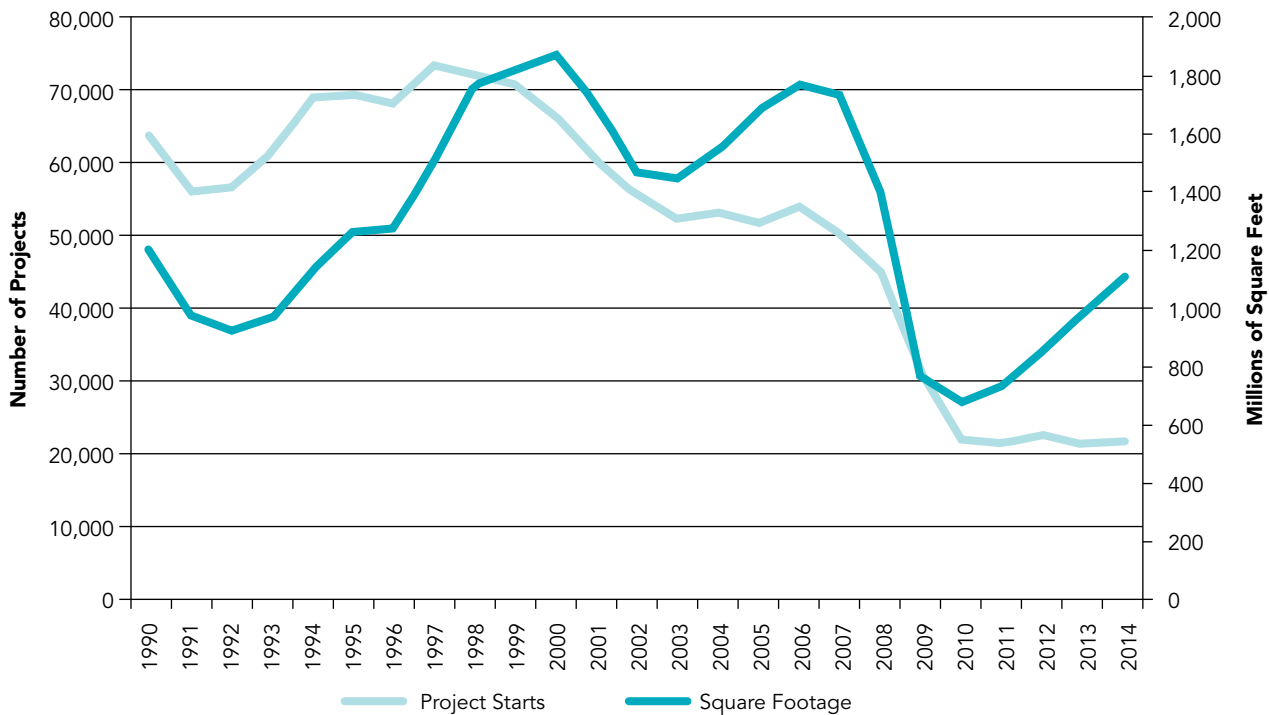
**IN THE 1960s**, famed architect Ludwig Mies van der Rohe described his approach to architecture using the mantra “less is more,” a theme often repeated as a call for clarity and simplicity in today’s culture.

But in the construction market, the opposite is now true, where “more is less”—i.e., more square footage but fewer projects.

Measured on a square footage basis, building construction starts in 2014 grew by 11% compared to 2013. This trend

the decrease in project count is real and marks a significant change for the construction industry. Figure 2 (on page 24) shows the average square footage of all nonresidential (including residential buildings five stories and above) building by year since 1990. The trend is obvious. With the exception of the trough of the Great Recession, the average new building size measured by square footage has been increasing rapidly. In fact, the rate of increase has escalated

**Figure 1 – Project Count and Total Square Footage**

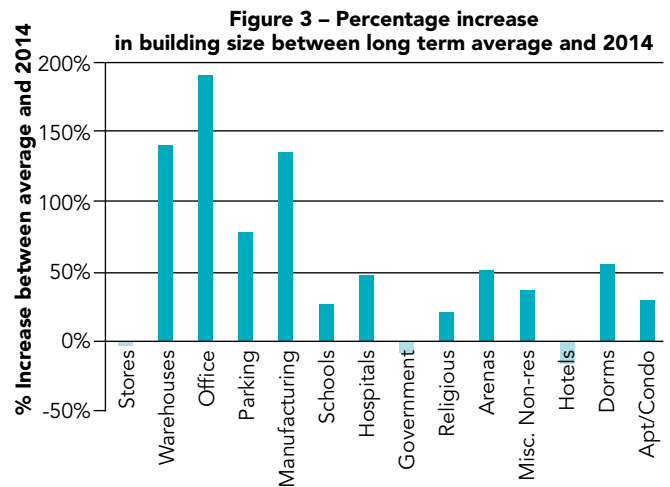
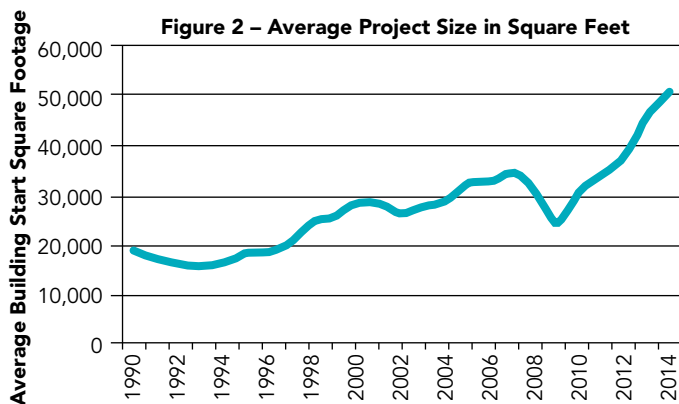


continued in the first quarter of 2015, with starts up 12% compared to the first quarter of 2014. At the same time, structural steel’s share of the market increased by two points. That should be good news for the construction industry in general and the structural steel industry in particular. But lurking beneath these encouraging numbers is a troubling trend. From a peak of 73,500 in 1997 the number of projects beginning construction fell to 22,000 in 2010 and has remained at that level through 2014 (see Figure 1).

While some of this loss in project count can be attributed to the cyclical nature of the construction market, the growth in the average size of buildings under construction indicates that

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since 2010. The loss in project count cannot be attributed solely to a decline in the size of the market. The trend clearly indicates fewer but larger buildings.

Three questions immediately surface: Is this happening across all project types? Why is this happening? What does this trend mean for the structural steel fabrication industry?

While the trend does impact most project types, it is not universal. As shown in Figure 3, the difference on a percentage basis between the average square footage of buildings of a given project type from 1990 to 2014 and the size of buildings for that project type in 2014 is most pronounced for warehouses, offices, parking garages and manufacturing facilities. At the same time, the size of stores, government buildings and hotels actually show a slight decrease.

Why is this growth in typical building size occurring? There are probably several reasons, all of which are related to marketplace and demographic trends in the U.S.:

- **Mega-retailers:** Retail giants, both online and brick-and-mortar, are gaining a greater percentage of the overall retail market. This has driven the demand for larger warehouses for their organizations and the logistic firms, such as UPS, that serve them. The decrease in store size probably reflects a saturation of big box retailers and a shift in their strategy to limited service neighborhood locations, and not a renaissance of the small retailer.
- **Urbanization:** The preference of the millennial generation to live and work in urban areas has shifted the demand for office space from suburban areas to central business districts. This trend is evidenced by high suburban office vacancy rates compared to low vacancy rates in urban office markets. Land is at a premium in urban areas, resulting in multi-tenant vertical rather than single-tenant horizontal development. The lack of suburban

growth in the single-family housing market has lowered the demand for single-story service-oriented (medical, insurance, banking, etc.) office space in suburban areas. Increasing urbanization (and a desire for sustainable construction) has also resulted in the renovation market for various types of buildings remaining strong, even during the recent recessionary period, with the number of renovation projects in 2014 (36,500) exceeding the number of new construction projects (22,000).

- **The decline of the small manufacturer:** While domestic manufacturing is increasing, it is not the result of small manufacturing startups or small manufacturers expanding their physical plants. Construction in the manufacturing sector of buildings under roof is primarily occurring thanks to domestic companies “reclaiming” manufacturing from overseas or overseas organizations establishing or expanding their U.S. manufacturing base.

So if there are fewer but larger buildings being built in the U.S., what does that mean to the structural steel fabricator?

- **Competition from other materials:** Several of the materials that structural steel competes with have increased their project pursuit efforts. This is particularly true of the wood industry, which has a stated goal of doubling their market share over the next five years, with 84% of their growth coming from projects that were previously framed in steel. With fewer projects in the marketplace, the efforts to influence projects to choose wood or concrete can become much more focused. And as the average size of a project grows and the number of projects decreases, every project becomes more critical in terms of maintaining and growing the market share of structural steel.

- ▶ **Fewer projects to bid:** Simple logic says that if there are fewer projects in the marketplace, there will be fewer projects to competitively bid. The corollary is that the successful fabricator will need to become even more aggressive in identifying potential projects and qualifying themselves to submit a bid package on the project.
  - ▶ **More bidders per project:** Fewer projects and more aggressive fabricators mean one thing: more bidders competing for each project. The days of two or three bidders on most projects are probably gone forever. The antidote for the fabricator that is constantly competing with multiple bidders is to continually reinforce the message that fabricated structural steel is not a commodity. The fabricator is not just selling steel but rather structural steel expertise as a steel specialty contractor. This can be done by becoming involved early in the life of a project and sharing that expertise as a member of the project team. Early involvement is a win-win for both the steel specialty contractor and the project team because value is gained by all parties. Will the marketplace shift from a design-bid-build process to some form of collaborative project delivery in the next decade? Probably not, but the wise fabricator will pursue and promote early project involvement whenever possible and embrace the opportunities that early involvement projects provide. Doing so will allow them to escape the inherent challenges and headaches of a low-bid world populated with a multitude of competing bidders.
  - ▶ **More renovation project opportunities:** Every challenge presents an opportunity. As the marketplace changes and fewer new construction projects present themselves, the renovation market continues to heat up. Of all framing materials, structural steel is the most renovation-friendly. Structural steel buildings can be transformed from one type of occupancy to another. Changing load requirements can be addressed. Structural steel is truly a skeleton that can be adapted to nearly any new requirement. And structural steel is the material of choice for upgrading seismic, occupancy and load requirements for concrete structures (and keep in mind that most wood structures can only be torn down when requirements change). The wise fabricator will make sure that general contractors and design professionals in their region are familiar with their ability to address renovation challenges with creative structural steel solutions.
- When it comes to today's construction market, more is less and there is no indication that this trend will change. Over the past decade, the structural steel industry has demonstrated the resilience to adapt to changing market conditions, become stronger and bring an even greater level of quality and service to project owners and teams. The same will be true of the challenge of "more is less." ■