The Steel Issue

Inside:
- Decade of Designation
- DBIA Position Announcements
- Steel Extravaganza

Reprinted With Permission of the Design-Build Institute of America (DBIA)
Early involvement of specialty contractors in design-build projects brings value to the process in that the specialty contractor can contribute its expertise early in design, offering input that results in cost savings and schedule reductions. More and more, design-build teams find it advantageous to contract specific segments of a building project on a design-build basis, including the M/E/P and framing system.

An increasing number of structural engineers, steel fabricators, detailers and erectors are finding success forming relationships to deliver the steel package using the design-build project delivery method.

These steel teams develop contract arrangements among their members to perform as a design-build team on specific projects. In many instances, steel teams have combined to form separate design-build entities.

One such specialty contractor is Speed Steel Design Build. The Dallas-based company is the product of the design-build partnership of structural engineering firm Stenstrom Schneider Inc. (SSI) and steel fabricator Burcamp Steel. SSI is a full-service structural engineering firm with an office in Dallas and sister companies in Omaha, Neb., Denver and Portland, Ore. Burcamp is an AISC certified member steel fabricator with a plant in Wichita Falls, Texas, and offices in Dallas and Oklahoma City.

As Speed Steel Design Build, the company provides turn-key contracts for structural steel on design-build contracts, says the company’s president Michael A. Stubbs, P.E. Initially, Speed Steel was formed as Texas Speed Steel in 2003, says Stubbs, who joined the company from SSI. At the time, SSI worked with various steel fabricators on design-build projects.

After entering an exclusive agreement with Burcamp in 2007, the name was changed to Speed Steel to reflect the changes with the company and because the company wanted to expand the business beyond Texas.

The company was started “to provide a better, easier and more economical solution to delivery issues associated with traditional structural steel projects,” says Stubbs.

He credits the Fast Frame program of steel producer Gerdau Ameristeel (then Chapparal Steel), Midlothian, Texas, for assisting in the genesis of the company. “Gerdau has been instrumental in helping define our business model,” Stubbs says. As part of its process, Speed Steel works...
MHSET In-Patient Tower The steel team worked with the erector on the Memorial Medical Center project to tighten the erection schedule and allow early entry of other specialty contractors, which resulted in completion of the project a month ahead of schedule.

Photo: Speed Steel Design-Build
with Gerdau to secure material and to forecast and lock-in pricing on material.

One thing that makes the company unique from many steel teams, is that most of its management team is co-located in Dallas. SSI shares an office with XYZ Axis Detailing, the detailer member of the Speed Steel team. Located just one floor above SSI and XYZ, Burcamp’s Dallas office has both project management and estimating staff. SSI’s arrangement with XYZ “has eliminated RFIs and reduced the time required for the submittal process,” Stubbs says. “The co-location of all of these key parts of the team has made us extremely efficient in delivering a project.”

The design-build environment “makes it easier to maximize the benefits of our team members’ strengths and avoid the weaknesses,” says Stubbs. More often than not, this provides for a lower contract price than the traditional method, “where the engineer is designing the building with no knowledge of who is going to build it,” Stubbs says. “It allows for quicker response to the inevitable issues that arise from construction.”

From the fabricator’s perspective, “design-build gives us more control over our schedule,” says Nat Kilpatrick, VP of business development for Speed Steel and vice president of the Texas division of Burcamp. The fabricator is “not as impacted by the RFIs and approval systems that can add weeks or months to the schedule with the standard design-bid-build delivery method.” A fabricator can do a lot of work if it can keep its schedule in place and avoid becoming overloaded, says Kilpatrick.

The company performs work on a range of project types, including commercial, industrial, midrise and religious facilities. With most of its projects being negotiated work, the company typically bids projects early in the architectural design.

**Health Care Solutions**

Speed Steel’s largest project, a six-story, 1,200-ton in-patient tower addition to an existing adjacent two-story hospital in Livingston, Texas, is a perfect example of how a team approach can solve problems better and faster, Stubbs says. Owned by Memorial Health System of East Texas, Lufkin, Texas, the complex Memorial Medical Center project was designed for an eventual three-story vertical expansion...
and included cantilevered floors, a roof garden and an atypical wall system. The steel team worked closely with steel erector Peterson Beckner, Houston, to reduce the erection schedule on the project and complete erection three months ahead of schedule. Modification of the erection sequence enabled the general contractor, J.E. Kingham Construction Co., Nacogdoches, Texas, to begin work on the light-gauge steel and drywall early. Subsequently, the project was completed a month ahead of schedule in 2006.

When drawings for the existing building were found to be flawed, modifications that were required to be performed on-site were conducted in just 10 days. “RFIs and sketches would have taken considerably longer than that,” Stubbs says. The speed of erection also reduced the existing building’s exposure to weather.

The structural steel Guaranteed Maximum Price was provided at a point when the architectural drawings were 50 percent complete. Obtaining the contract for the structural steel early also reduced the risk of potential material price increases.

The project schedule and the steel team’s ability to produce an accurate estimate of material costs were the primary driving factors in the owner’s decision to select the design-build steel team, says Terry L. Elliott, systems project manager for Memorial Health System of East Texas. The owner believed that design-build, through the integration of the shop-drawing process, would speed up the project schedule, which in turn would help the healthcare provider complete the project sooner. “The sooner the project is complete, the sooner the revenue stream can come on line and you can start paying for that capital investment,” Elliott says.

The steel team also was able to “give us an estimate of the material costs so we would know up front what the cost would be,” Elliott says. “This allowed us to go ahead and place the order for the bulk of the steel. At that time, steel prices were volatile and were going up. Ordering the steel when we did saved several hundred thousand dollars on the project.”

Having a single-source delivery system is another benefit of the process, he says. “In design-build, as project issues arise, whether they are change orders or questions, having one source to go to speeds the process.”

Realizing that a concern for many owners about design-build is the fear of not getting the most for their money by going through the typical bidding process, Elliott recommends that owners have a third party review a design-build team’s cost estimate as a safety valve to help ensure they are getting the best price.

Another project illustrates how the design-build delivery system can be employed by a steel specialty contractor to speed a project to fruition. When plans for the use of a modular building design for the 25,000-square-foot Bowman Building office project in Grapevine, Texas, had to be scrapped, putting the project six months behind schedule, Speed Steel (then Texas Speed Steel) delivered a steel-frame structure from start of design to completion of erection in only 10 weeks. “Most jobs that size aren’t even designed and detailed that fast,” says Stubbs.

The steel frame was compatible with the existing foundation and used conventional structural steel members, which the fabricator had in inventory. Kilpatrick, who was working for another fabricator at the time, says he was able take his material list to SSI and show them exactly what he had on the ground at that time. Designing to what the fabricator had in stock sped the project.

The steel team was able to provide the owner, Vision Southwest 40 LP of Grapevine, with a Guaranteed Maximum Price within two weeks of their initial meeting. As is often the case with successful ventures, success breeds growth, and steel teams such as Speed Steel are looking to expand. Speed Steel is finding its design-build project delivery so well received that it is opening another office in Oklahoma City, where fabricator member Burcamp Steel has an existing office.

Larry Flynn is industry marketing manager at the American Institute of Steel Construction.