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# HBG's Roots Provide Solid Ground to Grow

Colorado contractor helps form company into nationwide firm with design-build expertise

Currently working on more than 10 jobs involving bridges or interchanges, it is no wonder that HBG Constructors has been ranked the No. 1 bridge contractor by *Engineering News-Record*. The company is on-site with the most high-profile projects in the United States right now: the Carquinez Strait Bridge, Cooper River Bridge, and Oakland Bay Bridge-Skyway.

Heading the \$370 million firm is Scott Lynn, president and chief executive officer. From company headquarters in Longmont, Colo., Lynn

leads about 2,200 employees of the three units: HBG Flatiron, FCI Constructors Northern Division, and FCI Constructors Southern Division.

HBG Flatiron works mostly on the East Coast and is currently involved with Boston's CA/T project. FCI North encompasses the northern part of the West Coast and many projects in and around the San Francisco Bay area. FCI South focuses on Southern California with its headquarters in San Diego.

With more than 20 years' experience in the construction industry, Lynn has seen the

expansion of many firms, including his own. After all, HBG Constructors has its roots in a small, Colorado-based construction firm.

Lynn joined Flatiron in 1979 as a project superintendent for its structures division. At the time, Flatiron was involved primarily with aggregate base, but in 1989 the family owners sold that segment. Lynn had already taken the helm of Flatiron Structures as president in 1982. Seven years later, he bought a controlling interest of what was then a \$500 million business, which had recently started a California

entity, FCI Constructors.

In 1992, Lynn partnered Flatiron Structures with publically traded Wayss and Freytag of Germany. The German company was acquired by Netherlands-based Hollandsche Beton Groep (HBG) in 1997.

Three years later, HBG consolidated its North American holdings (HBG Flatiron and FCI Constructors, North and South Divisions) under one corporate identity, HBG Constructors.

The synergy enables HBG to offer a broader range of expertise and experience. For example, Flatiron, under Lynn's supervision, was involved with some of the first U.S. design-build projects, now a strong suit for HBG.

## Design-build beginnings

In the early 1990s, one of the first and largest design-build projects was taking shape — the San Joaquin



### COOPER RIVER BRIDGE

With a span of 1,546 feet, the Cooper River Bridge in Charleston, S.C., will be the longest U.S. cable-stayed structure.

### CURRENT PROJECTS INVOLVING BRIDGE BUILDING

Project	Customer	Location	Contract Amount (millions)
Oakland Bay Bridge-Skyway (JV)	Metropolitan Transportation Commission	Oakland, Calif.	\$1,040
Cooper River Bridge (JV)	South Carolina DOT	Charleston, S.C.	\$531
South Boston Interchange (JV)	Massachusetts Hwy. Dept.	Boston	\$198
Carquinez Strait Bridge (JV)	Caltrans	Crockett, Calif.	\$189
I-90 Logan Airport Interchange (JV)	Massachusetts Turnpike Authority	Boston	\$185
Knightdale Bypass (JV)	North Carolina DOT	Raleigh, N.C.	\$131
Logan Airport Terminal Area Roadways	Massachusetts Port Authority	Boston	\$87
S.R. 125 and S.R. 94	Caltrans	Lemon Grove, Calif.	\$62
Route 56 (JV)	Caltrans	San Diego, Calif.	\$41
Route 30 at Monte Vista	Caltrans	Claremont, Calif.	\$36.5
85/87 Interchange	Santa Clara Transportation Authority	San Jose, Calif.	\$23.5
Routes 60/91/215 Separation	Caltrans	Riverside, Calif.	\$15.5

(JV) Joint Venture

Hills Transportation Corridor in Orange County, Calif. The \$802 million project involved a 17-mile, six-lane, controlled-access toll road, including 10 interchanges that encompass 68 bridges.

Lynn and others at Flatiron Structures saw the opportunities with design-build and soon bid on the follow-up to the San Joaquin project, the Eastern Transportation Corridor toll road in Orange County. Winning the bid was Silverado Constructors, a joint venture of four engineering contractors, one of which was Flatiron, and five engineering design organizations. The project encompassed a 27-mile, limited-access road between I-5 in Irvine to the Riverside Freeway (91) in Anaheim, as well as 72 bridges and about 65 million cubic yards of earthmoving.

"Design-build is a far superior delivery system, compared to design-bid-build," Lynn says. "It allows the contractor, who is also the designer, to control and expedite the process so that projects can be delivered ahead." According to Lynn, several studies have shown that design-build projects are delivered more quickly and at a total-cost savings versus design-bid-build.

In fact, the Eastern Transportation Corridor was finished 14 months ahead of schedule; however, the project ended at a cost of \$800 million — more than \$100 million over the original bid.

#### Creating design-build expertise

HBG Constructors has done a number of subsequent design-build projects, such as the Sagadahoc Bridge over the

Kennebec River near Bath, Maine. Completed in August 2000, the \$46.6 million structure was Maine DOT's first design-build project. HBG Constructors collaborated with Figg Engineering Group, Tallahassee, Fla., to build the 2,972-foot-long bridge, with a main span of 420 feet. It is the longest precast segmental box-girder span in the United States. Construction began in October 1997 and was completed approximately one month ahead of schedule.

Most recently, the company is using design-build on the Cooper River Bridge in Charleston, S.C. The \$531 million structure, also known as the Arthur Ravenel Jr. Bridge, is being built by Palmetto Bridge Constructors, a joint venture with HBG Constructors and managing partner Tidewater Skanska, Virginia Beach, Va., through operating companies HBG Flatiron and Skanska USA Civil. Parsons Brinkerhoff Quade and Douglas, New York, is the lead design firm. It will be the longest cable-stayed bridge in North America, spanning 1,546 feet.

HBG had formed a relationship with the South Carolina DOT when it worked on the design-build Carolina Bays Parkway Project in Myrtle Beach. It involved some 20 miles of limited access divided highway with 29 bridges, including one over the Intracoastal Waterway. Also a joint venture, then Flatiron Structures worked with Tidewater Construction Co. and engineering-design firm TranSystems of Kansas City, Mo.

Several of the projects HBG works on are joint ventures due to the size and complexity of projects bid.

According to the company, many projects require the knowledge and expertise of more than one of its business units. Helping support this demand for construction expertise is HBG's own fleet.

Although the company does not own much earth-moving equipment, it does maintain a fleet valued at \$35 million, including 16 crawler and 11 hydraulic cranes.

The company even sells used equipment online. With a for-sale lineup of tower cranes, forklifts, lattice-boom crawler cranes, utility trucks, trailers, excavators, and much more, the company could compete with some full-fledged resale businesses.

#### Safety a top priority

Eight safety professionals are involved in the day-to-day construction at HBG, making sure that safety is treated with respect. "But this does not take responsibility from the line managers," Lynn says. "They need to supervise in a manner that ensures construction is conducted efficiently and safely."

What if a contractor runs a smaller outlet, without the means to employ safety professionals? Lynn's advice: "They key is in the attitude and approach by management. Everyone from the company owner to the president and down. Staffed safety persons cannot make it happen without line management making it happen." The company's safety policy helps to promote this attitude.

HBG's approach has demonstrated its success through a recent award from the Associated General Contractors (AGC) of California. FCI Constructors/Cleveland Bridge California received the

Safety Excellence on a High-Hazard Job Award for construction of the Carquinez Strait Bridge, which has had an outstanding safety record since breaking ground in January 2000. As of Dec. 31, 2000, the team had worked 197,000 hours with zero serious injuries and no lost-time accidents, according to AGC.

To achieve this success, the companies developed a safety program that includes new-employee orientation via CD-ROM, as well as written tests.

A second major component is weekly management meetings. For complex and/or high-risk activities, such as critical lifts or deep pile work, a formal safety review process takes place with the management team beforehand.

#### Words of wisdom

It has been said that the key to happiness is to love what you do. When asked what his favorite bridge job is, Lynn says that HBG blends high-profile with standard highway construction, but that doesn't answer the question. The way his voice excites when talking about the cable spinning methods at Carquinez Strait does, however.

The project is the first U.S. suspension bridge built in 35 years. Unlike the Golden Gate's free-hanging method, crews are using a controlled-tension method that keeps wires at a continuous tension during the spinning process. Lynn sums it up when he says, "This stuff is exciting to bridge guys like me."

At press time, cable spinning had just been completed on the Carquinez Strait on-site, and crews were starting compaction. The next major step is next year when the steel decks will be placed. ■



#### CARQUINEZ STRAIT BRIDGE

The first U.S. suspension bridge built in more than 25 years, the Carquinez is host to new construction methods for cable spinning.



#### OAKLAND BAY BRIDGE-SKYWAY

Part of a seismic retrofit, the east span of the Oakland Bay Bridge is being built by a Kiewit Construction Co.-Jed joint venture.