

Fall 2013

CRA Relies on Boh for Dock Demolition

Boh Assembles Rotary Car Dumper for **Metso Corporation**

Abstract Thinkers

Boh Employee Spotlight and **Employee Promotions**

President Robert S. Boh

Design & Layout Design III

On the cover:

A massive train car dumper is safely cradled on the dock at Boh's Almonaster yard.

The BOH Picture is published for employees and friends of Boh Bros. Construction Co., LLC

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In their 1994 book, Built to Last, authors Jim Collins and Jerry Porras describe a company's core values as those few, timeless guiding principles that never change regardless of how much the world might change.

They define how the company conducts its business and what it stands for. Several years ago, our leadership team identified five core values which we believed were descriptive of the way our company has done business since it was founded. One of those core values is "Never be satisfied." Generations of Boh people worked over the years to nurture improvement for its own sake, and this focus and commitment have been essential to the company's endurance and success.

In many ways, this core value might be the most difficult one to live up to on a daily basis. It is simply human nature to become satisfied, especially when one has experienced success. This attitude commonly leads to the repetition of activities and tasks in a "We've always done it that way" mode. However, as the saying goes, "Good enough never is." Great companies, on the other hand, are full of people who are very demanding of themselves; and they understand that contentment leads to complacency, which inevitably leads to decline. It takes tremendous discipline and even courage to constantly and constructively question strategies, policies, and procedures, even when things are going well, in a relentless search for a better way. For example, it is only by asking "why" several times that we get to the root cause of a safety or quality incident so that a lesson can be learned for the next time we do a similar task. We can take a project that is on schedule and on budget, and by looking hard at the sequencing of work and placement of crews, bring the job in early and under budget for the mutual benefit of our client and ourselves. All of the small improvements made as a result of this focus on "Never be satisfied" add up in a way that gives our company a chance to continue to be successful.

J. Willard Marriott, Jr., Chairman of Marriott Hotels, was quoted in 1987, "People would always say to my father, 'Gee whiz, you've done really well. Now you can rest.' And he would reply, 'Oh, no. Got to keep going and do it better." That sounds like good advice.

Robert S. Boh, President

"It takes tremendous discipline and even courage to constantly and constructively question strategies, policies, and procedures, even when things are going well, in a relentless search for a better way."

GRA RELIES ON BOH for Dock Demolition



When Entergy New Orleans contracted with CRA Engineering Group of Baton Rouge to demolish one of its docks on the Inner Harbor Navigation Canal, CRA turned to Boh Bros. Construction because of the company's expertise in heavy civil marine projects.

"We self-perform the majority of our projects, but we are geared more towards environmental remediation, land demolition and construction, but not this particular type of work on a navigable waterway," said Chad Peltier, CRA's project manager. "We leaned on Boh Bros. because of their experience working on the water. It was a good marriage for both of us."

CRA is a worldwide, full-service provider of engineering, environmental, construction, and information technology services

The local office teamed up with Boh Bros. on the Entergy project after witnessing Boh's performance on another project CRA was involved with. "Boh passed our corporate health and safety criteria as a competent subcontractor, as well as our



"The dock had been badly damaged during Hurricane Katrina and was in deplorable condition. Some of the pilings were snapped off below the surface of the water. The deck surface had been washed off and was lying on the inshore side of the pilings at the bottom of the canal."

Kyle Alexander, Boh's project manager

evaluation of their equipment and personnel," Peltier said. "We are very pleased with Boh's work on the project, including safety. We worked more than 9,000 man-hours without an incident. We are looking at doing other jobs with Boh Bros. in the future as a result of the experience."

Entergy's dock served a now-defunct power plant that was built in the 1950s. The creosote timber dock was 450-linear-ft.long and 20-ft.-wide.

"The dock had been badly damaged during Hurricane Katrina and was in deplorable condition," said Kyle Alexander, Boh's project manager. "Some of the pilings were snapped off below the surface of the water. The deck surface had been washed off and was lying on the inshore side of the pilings at the bottom of the canal."

CRA hired Boh to remove the timber piles and demolish and remove two concrete structures that served as intake and discharge for the power plant's water-cooling system.

Boh Bros. used a 4600-ringer crane equipped with a clamshell bucket to haul out the timber debris, which was placed in a 35-ft.-by-195-ft. hopper barge for removal.



"We used GPS to identify all of the pile locations and knew there were some that we couldn't see below the water's surface," Alexander said. "When you have four pile bents and then one with only three piles, you know there is a piling there."

Divers located seven pilings that were broken off at the mud line and exposed some of the wood.

Boh was also charged with performing deep soil mixing to restore the integrity of the soil in the areas where the piles were removed. "The dock was located adjacent to the hurricane flood protection levee," Alexander explained. "Once the integrity of the soil strata is weakened, it could cause failure of the levee during a storm or high-water event."

Before any of the pilings were extracted, Boh used GPS coordinates to define the location of each pile. "When it was time to do the soil mixing, we simply went back to those locations," Alexander said.

Boh performed the deep soil mixing by drilling a 30-inchdiameter hole and pumping bentonite (a dry cement) into the hole while mixing in water. The process essentially creates a hardcore column that stabilizes the soil. Boh mixed 187 columns

The final phase of the project is removal of the two concrete

intake and discharge structures, which is ongoing through September. "These tunnels transported water for cooling into and out of the power plant and go beneath the levee," Alexander said. "Our job is to sever that tunnel and remove the intake structures."

Demolishing the structures is the most challenging part of the project because so much of the structures are under water, he added. "On top of the water, these structures look like a 20-by-20-ft. piece of concrete, but they extend about 30 ft. below the water's surface."

To break up the structure, the Boh team is using a bargemounted excavator equipped with a 24-inch diameter hydraulic breaker. "We are using that with an air hammer and leads to punch through it," Alexander said.

The demolished material is being barged to a nearby concrete processing facility. "We'll offload that material at our Almonaster yard, load it in trucks and move it to containers that Entergy provided for disposal," Alexander said.

Dock demolition began June 1 and was completed July 2. The deep soil mixing began right after the demolition and was completed July 22. Alexander expects the demolition of the intake and discharge structures will be completed by the end of September.







- ▲ Innovative Approach Eight truckloads of dumper parts were delivered from Metso's Canonsburg, Penn. fabrication facility to Boh's Almonaster yard, which features a 1,800-linearft. dock on the Intracoastal Canal. Boh's first task was to assemble the 36-ft.-diameter end rings, which came in three separate pieces and had to be bolted together, leveled and then welded within very tight tolerances. To assemble the rings, the Boh team built a table comprised of two large, parallel beams topped with leveling plates.
- Monster Job Boh assembled a 60-foot-long, 30-ft.-diameter, 200-metric-ton rotary car dumper for Metso Corporation that will be used to dump train cars filled with iron ore. Each car weighs 145 metric tons and the payload is 110 metric tons. Since dumpers are in continuous service for 2 million cycles, welding is integral to the dumper's performance. All Boh Bros. welders are certified by the American Welding Society and can meet the ASME D1.1 standard for structural steel fabrication.
- V **Delicate Balance** Using Boh's 4100 Manitowoc crane, the team lifted the assembly, resting it in shipping cradles, and used support cables and guy wires to keep them in an upright position.





ABSTRACT THINKERS

Surveyors Translate Information, Bringing Projects to Life

a high level of quality control is by self-performing all of its construction surveying and layout.

"Because we do it internally, it's more accurate, more efficient, and it goes faster with a greater certainty that we will do it right the first time," said Jeff Plauche, vice president and Baton Rouge area manager.

ne of the ways that Boh Bros. Construction Co. maintains

"Our guys have a sense of ownership in our projects that a third party doesn't necessarily have," Plauche said. "They understand how we are going to build the job, and they anticipate the needs of the field crews because they've been working with the same guys for years. The surveyors help keep the field crews working efficiently

OH BROWNING OF SINCE 1909

and moving in the right direction."

Layout is the process by which surveyors translate the information from engineers' two-dimensional design drawings into data points for alignments and elevations that guide a project's construction in the field, Plauche explained. "Sometimes that means matching up to existing roads or facilities, and sometimes that means creating a new project in a grassroots area."

The surveyors are an integral part of every project delivery team, providing calculations for every heavy construction, marine, paving, pile driving and utility project within Boh's area of expertise.

"We always start from the beginning with the surveyors, when we get a set of plans at the internal preconstruction meeting," Plauche said. "That way, they understand not only the layout aspects, but they also gain a better understanding of scheduling, sequencing of work and the key players on the job."

Changing Times — Keeping Pace With Technology

When Mike Langlois joined the Boh team 22 years ago, surveyors primarily used transits and dumpy levels. "The transit was designed for the horizontal, or the left and right, and the level would establish the up and down," said Langlois, the head of surveying for Boh's Baton Rouge division. Lines were marked out with stakes and string, which is very labor intensive.

As GPS surveying technology evolved, so have the surveyors and Boh's capabilities. "We knew if we wanted to be responsible for all of our layout we had to keep up with the technology," Langlois said. "We started with a total station that can electronically shoot the distance and a hand held data collector. Today, every crew has some form of either a total station or a robotic total station, which is a one-man operation."

The use of the latest surveying technology not only helps Boh to remain competitive in the market, but it also speeds up production and results in a more accurate final product, said Mitch Palmer, layout manager with Boh's Heavy Construction division. "Back when I started 23 years ago we had three to four man crews," Palmer said. "Now, with robotics and GPS technology, two can do what six could."

Before GPS, surveyors made measurements by pulling a steel

"Now we do it by computer calculations in the office and then electronically send data in a text file or DWG file to the guys working in the field."

Mike Langlois

Head of surveying, Boh's Baton Rouge division

tape, Langlois added. "You had to know the temperature and correction for the distance because the temperature controlled how much the tape would stretch and how hard you had to pull."

These days, measurements are made electronically.

"Now we do it by computer calculations in the office and then electronically send data in a text file or DWG file to the guys working in the field," Langlois said. "They take that data and put it into their computer and use the total station or GPS to lay out those points. In certain situations, there is no need for stakes because the equipment reads the data in the computer. The operator can look at a computer screen and tell if he is lined up and whether he needs to go right or left to get aligned or put the blade down to get on grade."

The technology essentially allows surveyors to build projects "in the abstract," Palmer said. "It's like putting together pieces of a puzzle."

However, that doesn't mean there is a disconnect between the cyber project and the real project.

"We work real close with those guys in the field and we know



they depend on us to make sure everything fits right," Palmer said. "Sometimes we find mathematical errors on drawings before construction ever starts. The tiniest little error in the plans could cost exponentially in manpower and fabrication. By finding those inconsistencies early on we avoid more challenges later in the field."

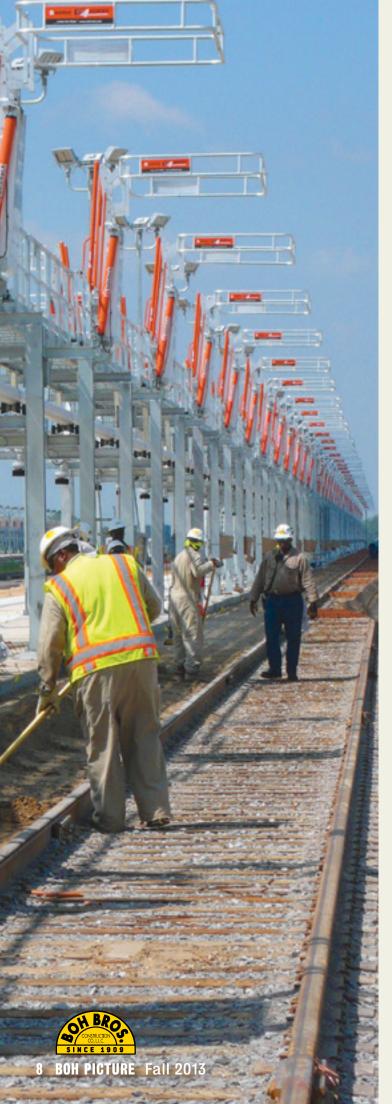
History of Team Work

Boh's team of 30 surveyors is a close-knit group, many of whom have spent decades working together. "We have developed friendships and camaraderie where we can lean on one another if we need something," Palmer said.

Those relationships also foster the sharing of institutional knowledge through mentoring.

Gary Pustanio, layout engineer, started with the company

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35 years ago as a rod man. "That's the guy who holds a rod and moves it up and down to determine the grades on stakes," he said.

As the company has acquired new technology, Pustanio has been eager to learn. "My first job with GPS was on the north/south runway at the airport in 2003," he recalled. "We used a monopaver guided by a Trimble robotic station and built the job on the computer. Mitch had used it first on the St. George Island Bridge in Florida, so he taught me a lot from that."

The desire to be constantly challenged and learning something new is a common thread among surveyors, Langlois said. "These guys aren't afraid to learn anything new. That's important because, when we train a surveyor in newer technology, that person has the potential to be an asset to the company for another 25 or 30 years."

Jason Aubin, who has been with Boh four and a half years, is the surveying party chief on a project at NuStar Energy LP in St. James Parish, where Boh is using a Leica GradeSmart machine control system on a grader and other GPS technology to build more than six miles of



railroad tracks and oil transfer systems within a two-mile long project area. "I like surveying because it's different," Aubin said. "We get to see

Cody Tomasich, party chief helper, has only been with Boh for a year, but already takes great pride in being a part of the team. "Not a lot of contractors have the GPS machine controls," he said. "We have one system and three pieces of equipment set up to use the software. It is a benefit on a job site like this with such a large area because the GPS can go anywhere."

everything from the drawings, to the field, to when it's built."

The GPS machine control definitely puts Boh at the cutting edge, Langlois said. "I can sit here in the office and design a model that the engineers want built, put that model into the motor grader or dozer, and then they can build the job from that."

Josh People, operator, said the GPS gives him confidence in accuracy because he can easily see on the computer screen in the cab if he is on the mark. "Putting in all those stakes and lines takes longer and requires more people," he said. "Once they set up the coordinates in the system, it's just me."

The project will allow rail cars filled with oil to pull into NuStar and offload to storage tanks.

By the time the first train pulls in November 15, Boh will have placed 160,900 cubic yards of sand, 24,000 tons of ballast, and 94,500 tons of sub-ballast. The contractor will have installed 15,728 linear ft. of drainpipe, excavated 75,500 cubic yards of material and removed 226,200 sq. yards of grass from the site. Boh's subcontractor will have completed installation of 33,000 linear ft. of railroad track.

Surveyors lined up everything on the project using GPS.

BOH EMPLOYEE SPOTLIGHT



Gary Pustanio, layout engineer I enjoy the mental challenge of surveying. All of these jobs are like puzzles we put together. We get to go to a lot of different places, and no job is the same.



Chris Galloway, layout engineer I've always been a surveyor, so I don't know much else. I love math, calculating jobs, building on a computer and actually seeing it on the ground.



Jason Aubin, party chief

I like surveying because it's different. It's interesting. It's not sitting in the office every day. Surveyors learn about how everything works. We get to see everything from the drawings, to the field, to when it's built.



Cody Tomasich, party chief helper

I like to see what we're building, to see the drawings and then the actual project. Our job is one of the most important jobs out here. If they didn't have us, they couldn't build it. It goes straight from the engineers to us. I'm learning a trade out here, so I can have a career for life.



Mike Langlois, lead surveyor, **Baton Rouge**

I just love taking the information from a set of prints and and watching a job being built. There is no other job out there that I would want to do—not a carpenter, superintendent—surveying is about the only job in the construction field I would

want to do. I like doing the calculations, computations, and watching the job being built.



Mitch Palmer, layout manager

I love the unending challenges of surveying, trying to make sure things are right from the beginning. Sometimes we find mathematical errors on drawings before construction ever starts. The tiniest little error in the plans could cost exponentially in manpower and

fabrication. By finding those inconsistencies early on, we avoid more challenges later in the field.

With surveying, you can step back and see a finished product. The challenges are never ending, but the rewards are great.

After the recent retirement announcements of long-time company leaders, Mike Cullen and Arthur Seaver, some long-term Boh employees have assumed new, key roles in the company.



Ed Scheuermann, formerly Vice President of Heavy Construction and a member of the Boh team since 1986, has assumed the role of Senior Vice President of Operations.



Rob Senior, who has been with Boh since 2003, is assuming the role of Heavy Construction Department Manager.



Jeff Quebedeaux, Manager of the Utilities and Paving Group since 2012 and a member of the Boh Team since 1986, has been named Vice President of Paving and Utilities.



Jeff Plauche, who has been with Boh since 2000, has been named Vice President — Baton Rouge Area Manager. In his new role, Jeff will also coordinate Business Development activities for the company.



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Fall Anniversaries

55 YEARSLawrence A. Newton, Jr.

Dale C. Biggers John F. Lipani Harry J. Mayeux

YEARS
Robert Butler
Kerry Israel

Kerry Israel Clifton P. Nary Curtis Prudhomme

YEARS
Ricky A. Alonzo
Keith J. Caillouet
Michael E. Gondrella
Brian K. Hartupee
Terry J. Remondet
Gerald Richard
Bryan E. Schouest

Terry J. Billiot Jerry W. Graves Kevin V. Hithe Kelvin Magee Wilton R. McMillian Phillip S. Montgomery Fred C. O'Boyle Daniel W. Pattison Carol C. Rome

20 YEARS

Wilson Alexander Carey T. Capdeville Roy D. Langridge Ralph J. Louque James E. Parker Paul A. Rouyea Homer V. Salsman, Jr. Stanley J. Tanner

Rene L. Aubert, Jr.
Ronjia O. Brumfield
Jacque Gurley
Ivory Jordan, Sr.
Johnell J. Labrie
Brad H. Landry
Paul E. Lepkowski
Mario H. Matute
Hurist Morgan
Walter H Penton, Jr.
Kevin Polly
Craig J. Prestenbach
Rickey Quigley

Christopher F. Rideau

James W. Seguin, Jr.

Glen A. Stillwell, Sr. Michael D. Watts Hillard Williams Christopher C. Wollfarth

YEARS Lewis A. Broussard Benjamin Brumfield Donovan L. Burton Robert E. Grover Stephen A. Hill Spencer Hunter William R. Kimble Brian J. Mathe Jeffery McPherson Janero Nichols John S. Perez Dustin J. Rein Jacob M. Saladino Robert N. Senior Bradford R. Stewart Tim P. Tregre

YEARS
Miles R. Allen
Raymond H. Armant
Randy W. Atchley
Paul S. August
Vigil Banford
Harold J. Banks, Jr.
Jason R. Barras, Jr.
Chad M. Bourgeois

Shane L. Cialona James R. Delucca Lance W. Deruyck Gary T. Dewberry Ame P. Duan Katrina N. Ester Mario F. Fernandez Joseph J. Gallegos Conor L. Gibson Kristie L. Gioe Christian J. Gordon Rodney C. Hamilton Jamal R. Hardy Douglas A. Hebert Joseph D. Hebert Edgar L. Hill Victor J. Hurst James M. Kinberger Russell B. Labourdette, Jr. Daniel B. Lackey Tri M. Le William P. Ledet Jason D. McGuire Wilfrido Mendez Lorenzo Miranda Joshua J. Parker Kenneth R. Parker David J. Poole, Jr. Anthony R. Salvaggio Robert R. Snider, Jr. Charles Stemley, Jr. Randy M. Trosclair Christopher J. Wallen Melvin Washington, Jr. Gerod D. Young

Equal Employment Opportunity/Affirmative Action Policy

Boh Bros. is an equal employment opportunity/affirmative action employer. The objective of this Company is to recruit, hire, train and promote into all job levels the most qualified applicants without regard to race, color, religion, sex, national origin, age, disability or protected veterans status. All such decisions are made by utilizing objective standards based on the individual's qualifications as they relate to the particular job vacancy and to the furtherance of equal employment opportunity. All other personnel decisions such as compensation, benefits, transfers, layoffs, return from layoff, company sponsored training, education, tuition assistance, social and recreational programs will be administered without regard to race, religion, color, sex, national origin, age, disability or protected veterans status. Boh Bros. employees should refer to www.hrconnection.com for further information on this and other employment-related policies including Anti-Harassment, Discrimination and Retaliation Policy and Reporting Procedure.