### the magazine of kiewit corporation

Kiewit

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# KIEWAYS



Kiewit is one of North America's largest and most respected construction and engineering organizations. With its roots dating back to 1884, the employee-owned organization operates through a network of subsidiaries in the United States, Canada, Australia and Mexico. Kiewit offers construction and engineering services in a variety of markets including transportation; oil, gas and chemical; power; building; water/wastewater; and mining. Kiewit had 2016 revenues of \$8.6 billion and employs 20,000 staff and craft employees.

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### KIEWAYS

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## THE LITTLE JOBS DO MATTER

Flip through the pages of any issue of Kieways and you'll find some of North America's most impressive large-scale projects. We're certainly proud of that work, but in this issue you'll see how our smaller jobs have just as big of an impact across the markets we serve (Page 6). Learn how diversity in contract size contributes to our organization's success, plus get an up-close look at the variety of smaller work we perform on Page 20.

These jobs aren't just important to Kiewit's success — they're critical to the communities where they're built, particularly those in remote areas or small towns. On Page 12, we'll tell you about the challenges, dedication and creativity that go into rehabilitating some of the Lone Star State's most critical roads. Then, on Page 14, get a change of scenery in a location made popular by the action-packed fishing series, Deadliest Catch.

Kiewit employees are the heart of our smaller projects and on Page 18 it's easy to see how this work is critical to their development and Kiewit's reputation. A win-win for everyone involved.

### **BRUCE GREWCOCK**

Chairman and CEO

### PREPARING FOR TAKEOFF

In Hawaii, the Top Gun project reconstructed taxiway intersections. Read more on Page 20.

# ACROSS THE MAP

A snapshot of recent small jobs across the Kiewit organization.

## ALSO INSIDE

OUR MARKETS AND OUR VALUES

> Learn how our market diversity and commitment to our core values drive Kiewit's success.

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### PAVING THE WAY

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### ONE CHANCE TO GET IT RIGHT

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### THE BIG LEAGUES

Small jobs are an important training ground for Kiewit employees.

## **OUR MARKETS**

### BUILDING MINING OIL, GAS & CHEMICAL POWER TRANSPORTATION RETAILED WATER/WASTEWATER

What began in 1884 with two hard-working brothers has grown into a Fortune 500 construction and engineering industry leader. As a multi-billion dollar organization, Kiewit can tackle projects of all sizes, in any market. Here are a few interesting facts about Kiewit.



### **AHEAD OF SCHEDULE**

The Peter Sutherland Sr. Generating Station at the New Post Creek project produces clean, reliable, low-cost hydroelectricity for more than 25,000 homes in northern Ontario. Construction began in 2014 and was completed ahead of schedule with the plant coming on line early 2017. The station generates 28 megawatts of power for the provincial grid.

### **SAIL AWAY**

The Hebron oil platform was christened in Bull Arm, Newfoundland, on April 18 before setting sail for its final destination 350 kilometers southeast of St. John's, Newfoundland. Kiewit-Kvaerner Contractors (KKC) completed construction of the platform's gravity based structure (GBS), and Kiewit Offshore Services (KOS) built its drilling support module (DSM).



### **A DAY IN THE LIFE**

Students from South Dakota School of Mines & Technology visited Kiewit's Buckskin Mine in Wyoming. The students toured the mine and met Kiewit mining engineers to discuss careers in the industry.



**BUILDING FOR A CURE** The Fred & Pamela Buffett Cancer Center in Omaha, Nebraska, started seeing patients on June 5. The facility includes both research and clinical facilities and is the largest project in the University of Nebraska Medical Center and Nebraska Medicine's history.

### OROVILLE DAM

In April, the California Department of Water Resources awarded Kiewit Infrastructure West Co. a contract to complete repairs on the **Oroville Dam**, the tallest dam in the U.S.



### **NEW IN NYC**

The first span of New York City's new **Kosciuszko** Bridge opened in April. A joint venture team composed of Skanska, Kiewit and ECCO III completed construction for the New York State Department of Transportation (NYSDOT). It is the first major new bridge constructed in New York City in more than 50 years.

## **OUR VALUES**

PEOPLE | **INTEGRITY** | EXCELLENCE | STEWARDSHIP

For more than 130 years, Kiewit's culture has thrived on strong principles. From generation to generation, the torch has been passed down and carried by the company's leaders and workforce. Today, its core values — People, Integrity, Excellence and Stewardship — remain the company's cornerstone and are the way Kiewit runs its business.

### JOINING INDUSTRY PEERS TO HONOR OUR COMMITMENT TO SAFETY

Kiewit once again joined more than 60 industry partners to participate in Safety Week the first week of May. Sponsored by the Construction Industry Safety Initiative (CISI) and the Incident and Injury-Free (IIF) Executive Forum, the event is focused on globally raising awareness of the industry's obligation to work incident-free everywhere it does business. In the U.S., Canada, Australia and Mexico, Kiewit teams participated in Safety Week by engaging in training, discussions and celebrations to reinforce the company's commitment to send every person on Kiewit's projects home safely at the end of the day.









### **DULLES SILVER LINE**

Capital Rail Constructors, a Clark and Kiewit Joint Venture, kicked off Safety Week on the Dulles Silver Line project with a mass safety meeting led by the Craft Voice in Safety (CVIS) team. The CVIS team presented to craft and staff and discussed important topics like planning work, hazard analysis and peer engagement.



### **PROJECT NEON**

In Las Vegas, Project Neon crews participated in a job-wide safety meeting to discuss potential hazards. Project Neon is Nevada's largest public works project ever.

### LACKAWANNA ENERGY CENTER

In Pennsylvania, the Lackawanna Energy Center project team marked Safety Week in a variety of ways including a mass safety meeting, discipline-led training focused on upcoming work and associated hazards, and a team cookout. They even got families involved by inviting employees' children to design hard hat stickers showing what safety means to them.

# SMALL TALK

Q&A with Kiewit's chief operating officer, Rick Lanoha

As Kiewit's chief operating officer, Rick Lanoha oversees the company's operations, including some of the largest construction and engineering projects underway in North America. Projects of nearly \$1 billion or more are more common at the company today than ever before.

But don't let the big numbers fool you. Lanoha, and any other Kiewit employee for that matter, would be quick to remind you that the company isn't just a builder of large jobs.

Far from it.

In 2016, more than 50 percent of the company's contracts were for \$10 million or less.

It's a strategic move made for a variety of reasons, including maintaining organizational stability and providing employees with ample training and development opportunities. In the following Q&A, Lanoha shares his perspective on why Kiewit's smallest projects play such a big role in the company's sustained success.



Rick Lanoha is president and chief operating officer of Kiewit Corporation. He is also on the company's board of directors.

### HOW DO YOU DEFINE A SMALL JOB?

A lot of different factors go into it. We could set the threshold at anything around or below \$10 million and that'd be a good initial indicator, but the dollar amount of the contract isn't all that matters. A \$10 million project with a 30-day schedule would be an incredibly large job to take on. It's less about the dollars and more about the scope of work that has to be completed and the number of Kiewit people it takes to build the job.

### DOES KIEWIT BUILD SMALL JOBS IN EVERY MARKET?

It's more common in some markets. For example, our building market has far more jobs below the \$10 million threshold than it does above, whereas in our power and oil, gas & chemical markets the opposite is true. Over the past two years or so, we've seen construction spending pick back up. That's exciting for us as we start to see more small projects become available in many of our markets.

# Job diversity by contract value



**6** It's equally important for us to diversify our work in terms of contract size. Project viability fluctuates based on size, too. In addition, if we only took on billiondollar jobs, even one unforeseen problem could get us into a lot of trouble. Diversifying brings stability to our organization.

### **RICK LANOHA KIEWIT CHIEF OPERATING OFFICER**

### WHY DOES THE COMPANY **CONTINUE TO PURSUE SMALL JOBS WHEN IT'S CAPABLE OF TAKING ON SUCH LARGE ONES?**

At Kiewit, we talk a lot about being diversified. Sometimes that means by market. We're building in six major markets and numerous submarkets every day. It also means by geography. We build projects in California, New York and a lot of the states in between. We also do work in Canada, Australia and Mexico. When investment and project availability fluctuate by market and geography, we're able to adapt.

It's equally important for us to diversify our work in terms of contract size. Project viability fluctuates based on size, too. In addition, if we only took on billion-dollar jobs, even one unforeseen problem could get us into a lot of trouble. Diversifying brings stability to our organization.

It also has to do with other things, like training and development opportunities available for our employees.

### WHAT DOES TRAINING AND **DEVELOPMENT LOOK LIKE ON A SMALL JOB?**

On large jobs, our employees are often responsible for one or two very specific things. On a small one, they're involved with nearly everything, from estimating, to securing permits, to working with vendors and suppliers, to overseeing the actual construction. Every day feels like it's completely different, and the learning is accelerated because the job takes place over a much shorter time frame. You've got to learn how to do just about everything, and quickly.

An important part of that is learning how to get support from the sponsor you report to and the rest of the organization when you need it. The individuals we assign to these jobs have proven that they're ready for the challenge and this next step in their careers. And there's an incredible network of resources and knowledge across our company to help them along the way, starting with their sponsors, who have inevitably been in their place before.



## Peter Kiewit on small jobs

In 1951, Peter Kiewit Sons' Co. was awarded a \$1.2 billion contract to build a new plant near Portsmouth, Ohio, for the Atomic Energy Commission. Peter Kiewit announced the project in a Kieways editorial, saying this was believed to be the largest contract ever awarded to a construction company. He was quick to remind everyone that while this opportunity was exciting, the company would have to continue to take all types and sizes of work in order to sustain and build upon its success.

"... Projects of this size are few and far between. This one will be finished in four years. While it is being performed, as well as when it is finished, we want to continue doing business the same as we have in the past. To stay in business over a long period of years, we must continue to complete all types of work, maintain our high standards of construction, avoid work stoppages, complete



our work on time to the satisfaction of the contract owners and, last but not least, make a profit.

If we do the 'big' job well, and at the same time keep our other work running efficiently, we will be one step nearer our goal which is, and always has been, to be 'the best contracting organization on earth."

### CRA Erosion Protection Curbing, Twentynine Palms, California



Top Gun - Taxiway Z Extension, Honolulu, Hawaii

One day in April job wins

The diversity of Kiewit's business, and the prevalence of small jobs, is apparent just by looking at the projects awarded to the company daily. For example, on one day in April, Kiewit won five jobs ranging from \$1 million to \$9 million, and another with a contract value of more than \$110 million.



H-JAIA Airfield Repairs, Atlanta, Georgia



Scenario 6 Transmission Main Improvements, Phoenix, Arizona

### \$114.0 M

The projects are in various geographic regions like Georgia and Colorado and in different markets too, including building and transportation.

## \$1.6 M \$3.2 M \$7.2 M \$7.2 M \$8.9 M

Sample of contracts awarded on a given day

### DO EXPERIENCES ON SMALL JOBS TRANSLATE TO WORK OF ANY SIZE?

These projects are almost always bid-build. We have to be the low bidder to be awarded the contract. Typically, we're up against five or six bidders, and if you don't have the best estimate, you don't get the job. It demands intense attention to detail, which helps build and reinforce good habits that are important when we're estimating jobs of any size.

As far as actually building the work, even when we talk about our biggest projects, it's often in terms of breaking them down into small jobs. It allows us to narrow the focus. We can take something that might be overwhelming and turn it into something that's more manageable.

### HOW DID THE TIME YOU SPENT ON SMALL JOBS PREPARE YOU FOR YOUR ROLE TODAY?

The first job I estimated as a sponsor was a small job. I'd worked on a lot of big job estimates, but that was the first time I oversaw the entire process from beginning to end. When you win the job, you see how everything fits together, building that estimate out in the field. You realize how important it is to be accountable and responsible, to yourself and to the entire company. That stuck with me as I moved on to bigger jobs and into my role today.

### WHAT DO YOU TELL EMPLOYEES ABOUT THE FUTURE OF SMALL JOBS AT KIEWIT?

Sometimes I get asked by our younger employees, "Is Kiewit just going to be a big job contractor?" When I answer them, I want my enthusiasm to come across that the most important thing at Kiewit is that we are builders and our people know how to build work successfully. That's going to be the key forever. We do that by giving the people we hire out of school or who come up through the craft the opportunity to build work and get hands-on experience learning what it takes to be successful. These small jobs are how we provide those opportunities.

I want my enthusiasm to come across that the most important thing at Kiewit is that we are builders and our people know how to build work successfully. That's going to be the key forever.

> RICK LANOHA KIEWIT CHIEF OPERATING OFFICER

## PAVING THE WAY for New Opportunities in West Texas

The dry, desolate conditions of West Texas may not rank at the top of the list for bustling destinations. But for Kiewit, it's been a hub for plenty of project opportunities.

Over the past two years, a core team of six staff and about 15 to 20 craft has been working hard and fast on nine paving projects for the Texas Department of Transportation (TxDOT).

The jobs — totaling \$86 million in contracts — are straightforward: to provide lasting roadway rehab for crumbling stretches of highway around Odessa and Lubbock.

Projects have included milling existing surfaces, applying base treatments and laying 333,000 tons of asphalt hotmix to restore the roadway, add passing lanes and replace a small bridge.

Though the work takes crews to remote locations, that's part of Kiewit's formula for success, says Ryan Booth, who served as project manager for two of the jobs.

Project Sponsor Scott Roe looks at market conditions to determine which jobs have the best opportunities.

"We go to the places no one else wants to go," Booth says. "They're usually remote locations and small towns."

The rest of the formula is a mix of art. science and hard work.

Kiewit was awarded three of five TxDOT jobs that include an emulsion treatment to the existing base. The special asphalt mix stabilizes the base layer — making for a longer life.

Providing this kind of new base treatment required an investment in new equipment and training for the crew. However, Booth says it was a calculated risk that's paid off.

"It's a new way of doing things and not every TxDOT district is doing it. But it turned out well, so we think it's going to become more common."

With the potential for more jobs in the area also came a need to provide a new source of crushed rock used in the asphalt mix.

A Texas specification requires that rock used on paving jobs must meet a certain grade or quality of hardness. But with only a few places in the state to mine that resource, Kiewit faced a shortage early on and had to put a hold on work.





1. Crews placed 333,000 tons of asphalt hotmix on paving projects in West Texas. 2. Kiewit set up its own crushing operation to address a resource shortage. 3. Kiewit managers said a key to their success in West Texas was the hard work of their people and their willingness to work in remote locations.

The company decided to set up its own crushing operation When you're out in West Texas, you're kind of on your own. Everybody's got to do everything. With limited resources, the entire team has to get the same end result, fast. RYAN BOOTH,

in Balmorhea, south of Odessa. Now, Booth says it can cover a 100- or 200-mile radius and sell rock to others doing work in the area. The operation also provides work to craft in the paving off-season. As the final project approaches completion this July, the team is proud to have earned praise from the client and the industry. Several jobs have been recognized for achieving a superior "quality of ride," indicating the smoothness of the pavement. The biggest achievement, Booth says, is how dedicated the team has been. "The long hours and hard work of everybody on every job - there's no way we would have gotten here without it." TxDOT's Ed Goebel echoed this praise. "On behalf of the Texas Department of Transportation, I would like to thank everyone who's worked on our roads. Your dedication, professionalism and hard work is

**KIEWIT PROJECT** appreciated."

MANAGER

# ONE CHANCE TO GET IT RIGHT

When Clint Lane arrived in St. Paul, Alaska, with about 30 Kiewit staff and craft to repair breakwaters in the local harbor, they knew that the team had to match some high standards.

"It seemed like everywhere we went we heard about what past Kiewit crews did. The locals. The city manager. Everyone had something to tell us," Lane said.

That reputation had endured for nearly 30 years since Kiewit's first project building the original breakwaters for the U.S. Army Corps of Engineers (USACE), followed by a few additional jobs in the '90s. And it was strong enough that even decades later, some individuals were remembered by name.

"I heard the name Ken Brookhart more times than I can count," Lane said, referring to a former Kiewit employee. "People remembered him from the first time we were up here in the '80s."

As was the case with prior projects, Kiewit had a lot on its plate as it started construction in 2016. Perhaps no task was more important to the team than living up to the reputation that preceded them.

Many of Kiewit's projects are built in remote locations, but it's hard to imagine one that fits the description better than St. Paul. Located in the Bering Sea nearly 300 miles from the mainland of Alaska, it's one of four islands that as a group are known as the Pribilof Islands.

For those who've never experienced it, the Bering Sea is perhaps most known for the omnipresent role it plays in the Discovery Channel's "Deadliest Catch." An episode in the show's seventh season titled, "The Island," highlighted just how difficult it is to sail in and out of St. Paul's harbor.

The same conditions that challenge crab fisherman challenged Kiewit's construction crews. To avoid the worst issues, work was planned during a four-month window from May through August. Kiewit had one shot to get equipment and material deliveries right.

"If you don't bring the right stuff, or if it breaks, you won't get done on time. It's not going to happen," said Lane. "A barge takes weeks to arrive and every additional day adds

### St. Paul Harbor A remote construction site



300 miles off the coast of Alaska One of four islands that are

collectively known as the Pribilof Islands





1. In-water construction had to be completed before Sept. 1 during a marine mammal window. 2. Crews completed 83,000 cubic yards of dredging on the project.







## Minding the residents

The Pribilof Islands are home to around 50 percent of the world's fur seal population, a protected species. This was an important consideration during breakwater construction in St. Paul harbor. In-water work was prohibited beginning Sept. 1 when seals started coming to the harbor in larger numbers. Even when in-water work was allowed outside of this marine mammal window, the project team had to monitor for seals. Anytime a seal ventured near equipment, construction was put on hold. time and cost. From excavators to office supplies, you have to have it all accounted for, and if you're wrong you live with those consequences."

"Once you're on the site, it's not about what you need, it's what you do with what you have," added Kiewit Superintendent Ryan Brunner.

In addition to completing 83,000 cubic yards of dredging, more than 32,000 cubic yards of armor stone and scour rock were placed on the project. Some was sourced locally, but most was barged in from Washington and Kodiak, Alaska.

"We were doing calculations up to 10 times a day to make sure we knew the exact quantities we'd need," Lane said.

Ultimately they were spot on. The project finished on time with one armor stone to spare.

Lane and Brunner each attributed the team's success in large part to adaptability.

"In addition to the Kiewit staff with experience on these types of remote projects, we have a core group of craft that works with us in Alaska," Brunner said. "They know how to adapt to these conditions and are important



1. More than 32,000 cubic yards of armor stone and scour rock were placed on the breakwater repairs. 2. Getting the right equipment delivered to the remote island of St. Paul was an important part of planning logistics.

members of our team. We got them involved in our scheduling and planning before the project even started, which helped us stay on target."

While the scope on projects like St. Paul may be smaller than a transportation megaproject in Toronto or a power plant in California, they are no less significant to the communities that rely on them.

Understanding what the project means to locals is what motivates Kiewit employees like Lane to live up to the standard that was set before them, and to build more goodwill of their own.

"This harbor is essential to the economy and life in St. Paul," Lane said. "If a storm came in and washed out the breakwater, it would be catastrophic. The community trusted us to come in and do things the right way in large part because of the way the Kiewit teams before us performed. We made a commitment to conduct ourselves and our work with respect for everyone in St. Paul. Hopefully down the line when another project comes up, they'll remember our team as fondly as Ken and all of the other crews before us."



In 1989, Kiewit crews arrived in St. Paul to construct a main breakwater and dock extension and a detached breakwater. The project also included channel and mooring basin excavation. Crews placed 500,000 tons of stone on the project, which were sourced from offsite locations like the project in 2016.

## THE BIG LEAGUES TRAINING AND DEVELOPMENT ON SMALL JOBS

A pitcher taking the mound for his first big league appearance. A golfer teeing it up for her first professional tournament. A quarterback under center for his first Sunday game.

For construction professionals, managing your first project is kind of like that. At Kiewit, it's a significant milestone in an employee's career which almost always takes place on a small job.

Brian Fetters joined Kiewit in 1998 as a full-time staff employee after working as a carpenter on several of the company's projects. In 2008, he was assigned to be a project manager for the first time, a role on a small job that exposed him to nearly every aspect of building work.

"On our larger projects, you're typically responsible for one very specific task," he said. "On small jobs, it's different. Because you have a much smaller staff, you're involved in just about every part of the job in the field and the office ---from owner's meetings to permitting and scheduling every type of work being built."

Today, Fetters is a sponsor with Kiewit. In addition to coordinating pursuits for new work, he oversees about five current projects, many of them small and with first-time managers overseeing the day-to-day operations.

One of those managers is Scott Nelson who joined Kiewit in 2006 after completing a mechanical engineering degree at the University of California, San Diego. Nelson was assigned to his first role as a project manager in 2015.

Even though their careers began differently, Nelson and Fetters described the experience of managing small projects in much the same way.

NOBODY

"I was able to work with a lot of different people, including clients, inspectors and union contacts," Nelson said. "By dealing with all of this on a small project, I was able to learn more about different parts of the business and get experience needed to progress in my career."

Just as one star athlete doesn't make a championship team. project managers are assigned with both staff and craft employees who complement their skills. It's an opportunity for everyone on the team to develop their abilities, not just the project manager.

"We pair people up so they can learn from each other," said Ron Glynn, who is also a sponsor for Kiewit in Southern California. "If our project manager has a strong electrical and mechanical background, but needs more experience in civil and structures work, we'll put them with a superintendent that's really experienced in civil and structures and would benefit from learning more about mechanical and electrical."

Similar to an athlete's coach, Kiewit's project managers can turn to their sponsors for advice. Fetters and Glynn visit their projects regularly to stay engaged in the job's progress, and in that time work with managers, helping them develop in their roles.

"Ron made sure the right mentors and leaders were around me on my way to help me develop," said Luis Curiel, a first-time manager who reports to Glynn. "He's reassured my decisions and given advice when I needed it. He's also helped me gain more confidence in my ability to take on more responsibility and take charge."

The support doesn't end at the sponsor. Kiewit's small job teams can tap into the knowledge and experience of the entire organization.

"Kiewit's resources really help us out on these smaller jobs," Fetters said. "There's always someone there to be a sounding board and to provide resources when we need them."

Like the pitcher, the golfer or the guarterback, Glynn and Fetters say those assigned to lead projects have earned the right to be there. Fetters described them as "A+ players," Glynn called them "superstars."

"When we choose a project manager, we're not just choosing someone because they need the experience. You have to earn the right to run a job," Glynn said. "We pick people that are real leaders and that the company has their eyes on as someone that can step up. They've got the weight of the whole company supporting them and we know they'll run these jobs successfully."

### What stays the same

While there are differences between working on Kiewit's small projects versus its larger ones, many aspects are consistent on every project, regardless of size.

### PRIORITIES

on the small and large projects are the same. Your main priorities are still safety, quality, and making your is the magnitude and the size of the Zac Vaiskunas, Kiewit project manager

6	On small jobs, it's
	different. Because you
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	of the job in the field
	and the office — from
	owner's meetings
	to permitting and
ł	scheduling every type
	of work being built.
	<b>BRIAN FETTERS</b> , KIEWIT PROJECT

**SPONSOR** 

"A lot of the things you come across budget and schedule. The difference work and the size of the project team."

### **EXPERTS AVAILABLE**

"Our shared service teams are a good solution to some of the challenges of running a small project. It allows for small projects to have experts on things like business, equipment and document control involved without having to add another person to the project team."

Jeremiah Hoeflich, Kiewit project manager

# ACROSS THE MAP

A snapshot of recent "small jobs" from across the company

### **TOP GUN - TAXIWAY Z EXTENSION**

Honolulu, Hawaii

The Top Gun project was an extension of the Taxiway Z project, which reconstructed Honolulu International Airport's Taxiway Z by removing asphalt and replacing it with cast-in-place concrete. Following completion of the taxiway replacement, the Top Gun job reconstructed intersections at Taxiways Y, E, H, S, D and N, which included removing asphalt and concrete followed by grading, cement-treated base, concrete paving, asphalt paving and striping operations.



### **KEOKEA-WAIOHULI**

### Keokea, Hawaii

This project team completed drainage improvements and grading for 46 residential lots. The scope of work included building approximately 10,000 linear feet of GRP drainage swales, 21 drainage culvert access roads, grading and construction of a detention basin and 23 new waterline service laterals. Fifteen of the lots were fully graded and prepared for move-in as part of scope growth on the job.

### **JETTY A**

Ilwaco, Washington

The Jetty A Rehabilitation project included the repair and reconstruction of Jetty A at the mouth of the Columbia River, known for some of the roughest sea conditions in the world. Crews mined more than 84,000 tons of jetty stone in varying sizes out of the Beaver Lake Quarry in Mount Vernon, Washington, and then barged out of Anacortes, Washington, to the jetty location. All of the jetty repairs were completed in 2016. Crews returned in the spring of 2017 for site restoration, road repairs and demobilization.





### SOUTH RIVER FILTER REHABILITATION

Atlanta, Georgia

The City of Atlanta's South River Water Reclamation Center is designed to treat 54 million gallons of water per day (MGD). The scope of this project included the rehabilitation of 12 TETRA deep bed filters at the facility, replacement of 3,000 cubic yards of filter media, pressure washing of the filter cells, removal and replacement of nearly 11,000 square feet of filter underdrain system, mechanical inspection, and improvements to 60 filter valves and actuators, among other items. The improvements were made to ensure the facility continues to meet environmental requirements.

### **H-JAIA AIRFIELD REPAIRS**

Atlanta, Georgia

These projects corrected deficiencies of existing airfield pavements and safety areas at the Hartsfield-Jackson Atlanta International Airport. The project team completed full depth slab replacements of airfield pavements, spall repairs, trench drain repairs, replacement of storm drainage and removal of unused access roads. Crews also corrected issues in the runway and taxiway safety areas that were not in strict compliance with the Federal Aviation Administration (FAA) criteria.







### MIAMI AVE. BASCULE BRIDGE REHABILITATION

### Miami, Florida

Structural and mechanical repairs were needed in order to extend the life of the Miami Ave. Bridge, which crosses the Miami River. Crews performed span lock removal and replacement, bridge hydraulic cylinder refurbishment, stainless steel cleaning and coating, and roadway grating and replacement on this bascule bridge.

### DONALD C. TILLMAN SCREW PUMP **INSTALLATION AND UPGRADES**

Los Angeles, California

The Donald C. Tillman Water Reclamation plant provides recycled water to many in the San Fernando Valley. This project removed and replaced a total of eight screw pumps at the plant. The project team completed the job in two phases. The first included the removal and replacement of four 96-inch-diameter screw pumps; the second phase included the removal and replacement of four 102-inch-diameter screw pumps. Crews also poured new slabs and walls, installed other necessary equipment and commissioned the system.





### **ETIWANDA PIPELINE NORTH LINER REPAIR**

Fontana, California

This project team removed approximately 2,000 tons of existing cement mortar lining and applied polyurethane lining inside a 12-foot-diameter underground steel pipeline for approximately 12,500 feet. Construction also included providing access points into the pipe. The pipeline work had to be performed during a shutdown which required 24-hour-per-day work schedules.



### **COLORADO RIVER AQUEDUCT (CRA) EROSION PROTECTION CURBING**

### Twentynine Palms, California

In order to allow the Colorado River Aqueduct to flow safely when it's full, this project installed approximately 28 miles of new concrete curbing and demolished and replaced

> 9,100 square feet of concrete canal panels. The project team also furnished and installed new communication lines, solar power and electrical equipment and enclosures, and completed other civil site work.





### **GISLER/RED HILL SYSTEM IMPROVEMENTS**

Tustin, Santa Ana and Irvine, California

The Red Hill sewer system was originally constructed in the 1960s and early 1970s. System improvements as part of this project include installing larger diameter pipelines in some areas and new protective lining in others. Repairs affect up to 13,200 feet of the sewer system, approximately 4,900 feet of which will replace an existing 24-inch-diameter sewer line with new 30- to 33-inch-diameter line. The repairs will ultimately increase the sewer line's capacity and improve public safety.

### **SCENARIO 6 TRANSMISSION MAIN IMPROVEMENTS**

### Phoenix, Arizona

The Arizona Water Association awarded this project its Water System Project of the Year award. The project team installed approximately 3,900 linear feet of 42-inch water transmission line with associated steel surge tank, piping, instrumentation and controls. The team also installed 350 linear feet of 66-inch pipe 40 feet under the SRP and ACDC canals using boring and jacking operations. Scope included site improvements like paving, lighting and landscaping.





### DEER VALLEY WATER TREATMENT PLANT **RESERVOIR REPLACEMENT**

Phoenix, Arizona

The first component of this project was to demolish an existing 20-million-gallon reservoir. Crews then completed mass excavation and backfill before building a new 20-million-gallon concrete, cast-in-place reservoir. Construction of the new reservoir included installing chemical feed piping, large-diameter concrete piping, level sensors, transmitters, security measures, and associated conduits and control wiring. The new facility has an expected life-span of 60 years or more.

### **RUTHERFORD SOLAR**

Forest City, North Carolina This solar project includes 289,000 panels across 480 acres. The project team's scope amounted to approximately

110,000 man-hours installing conduit, cable and electrical equipment.



### **BENTWAY**

### Toronto, Ontario

In the heart of downtown Toronto, Ontario, the Bentway Project is re-inventing unused urban space beneath a raised expressway, and creating a diverse, multi-functional, public area. The focal point of the development is an outdoor ice rink, complete with ice-making facilities, iceresurfacing equipment and a garage. A terraced pier made of natural materials with stages and bleacher seating will be surrounded by green space and gardens, all designed to transform the vacant and forgotten area into a year-round gathering place.

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### CHILDREN'S HOSPITAL & MEDICAL CENTER VILLAGE POINTE – CHILDREN'S ASC

### Omaha, Nebraska

This interior fit-out project created an outpatient surgical center in an existing multi-tenant medical building. The 13,160-square-foot outpatient surgical center houses three operating rooms, eighteen post-operative patient recovery rooms, two locker rooms, two nurses stations, a reception area and other work spaces, and can accommodate another future operating room. The project was completed in seven months.







### **BLUEBARN THEATRE**

Omaha, Nebraska

The 96-person seating capacity in BLUEBARN Theatre's new 12,700-square-foot facility is comparable to its old one to maintain an intimate feel. Improvements to the scene shop, dressing rooms, sound control and electrical systems, as well as 16-foot ceilings and a larger stage are just some of the upgrades in the new theatre. Recycled and handmade interior materials are a focal point, including naturally rusted sheet metal, thousands of pieces of recycled wood, and reclaimed granite and stage flooring. A covered outdoor space opens up new options for alternative programming.

### **DO SPACE**

### Omaha, Nebraska

Do Space is the first digital library of its kind in the U.S. It's an ultra-modern digital incubator that includes a community technology library, a digital workshop and an innovative playground filled with opportunities to learn, grow, explore and create. The scope of the project included incorporating over \$3 million of cutting-edge technology into a relatively small building, including hundreds of computers, iPads, TVs, digital signage, gaming systems, servers, wireless systems and other audio/visual components. The reconstruction was completed in 10 months.





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