celebrating 120 years of innovative approaches, practical results and outstanding service
Our History of innovation and corporate responsibility comes into focus this year as we celebrate 120 years as a professional services firm. We are a firm built on a foundation of innovators and supporters of our professions and communities. Our founders were thinkers and problem solvers who pioneered many “firsts” across the state of Texas: the first water filtration plants and wastewater treatment plants, the first water supply reservoirs, a founding member in the Texas Section of the American Society of Civil Engineers and more. It’s no surprise that when Major John B. Hawley founded Freese and Nichols in 1894, he became the first independent consulting engineer for water and sewer work in Texas.

While this year is a celebration of what our founders established in the late 1800s, we continue their journey forward with as many “firsts” today as we had 120 years ago. We are proud of the advancements and achievements our staff has made possible by thinking beyond the boundaries and becoming recognized as innovators and stewards of the 21st century.

On these pages, you’ll catch a glimpse of the innovation that’s alive and growing at Freese and Nichols, as well as the areas of corporate responsibility—wellness, community service, sustainability and professional service—that we make a priority. The fold-out timeline looks back at our founding days and journeys through the inspirational work that has brought us to present day and beyond.

I hope you will join me as we celebrate our 120 years of service.

Robert F. Pence, P.E., BCEE
President and CEO
Freese and Nichols, Inc.
One thing that sets Freese and Nichols apart is that we take the time to fully understand our clients’ needs — from their internal project challenges to their long-term project goals. We do this by developing strong relationships throughout our client’s organization, from senior leaders to young engineers. We learn what really affects them on a day-to-day basis, which enables us to develop solutions that satisfy project goals without disrupting their busy schedules.

We've put this approach into practice in Corpus Christi, Texas, for more than 85 years. In addition to roads, dams and treatment plants, our services also extend to educational opportunities that allow us to be considered a trusted advisor. Through our relationships with City employees, we recognize where our expertise matches their needs. Recently, we’ve provided guidance to help the City rewrite their front-end contract documents, as well as strategic planning for consolidation of their Water and Wastewater utility groups.

One excellent example of our role as trusted advisor was the reconstruction of South Staples Street, a 24-phase project for which our team provided engineering design and construction phase services. Because Staples Street is one of the busiest corridors in Corpus Christi, our team recognized that public input was critical. We developed an extensive outreach strategy to communicate with property owners, business owners and other stakeholders. We also created a project website and Twitter feed to keep the public informed and updated throughout the project duration.

*“The public outreach strategy applied during the design development phase was considerably smoother than anyone anticipated, so the City decided to continue the enhanced public outreach throughout the construction phases,” said Project Manager Nick Cecava, P.E. “It resulted in a positive project that was very well-received by the public.”*

In fact, during construction, one TV station aired a segment on how smoothly the work was progressing. “*3News couldn’t find anyone who had a problem with the slowdown, because they said the City has done a great job of keeping entrances open and traffic moving,*” KIII News reported in June 2012.

We are also helping Corpus Christi guard against ongoing drought. Starting with initial routing and feasibility studies in 2003 and continuing through the construction phase services now underway, we’ve served the City through every step of the Mary Rhodes Phase 2 Pipeline project. This system, which will convey 46 million gallons per day from the Colorado River, will have two pump stations, 41 miles of 54-inch raw water pipeline, a sedimentation basin and other facilities. It also entails meeting multiple local, state and federal requirements in a timely manner. Freese and Nichols brought the expertise and resources to meet the City’s deadlines. Construction began in April 2014; the project is on schedule to be operational by June 2015, preventing interruptions to Corpus Christi’s water supply.

**EARNING THE ROLE OF TRUSTED ADVISOR**

by Ron Guzman, P.E.

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**WHEN IT RAINS, IT STORES**

by Gennady Boksiner, P.E., BCEE

At the Central Regional Wastewater System Treatment Plant near Dallas, the Trinity River Authority (TRA) is better equipped to handle the peak flows during wet weather, thanks to the new On-Site Storage System. Its 160-million-gallon concrete-lined storage basin — larger than the Dallas Cowboys’ AT&T Stadium — enables TRA to divert and store flows in excess of what the treatment plant can process. The system, which also includes screening, pumping and hydraulic conveyance, provided significant cost savings over traditional expansion or blending facilities. Freese and Nichols performed study, pre-design, final design and construction phase services on this project.

**INNOVATION**

by Gennady Boksiner, P.E., BCEE, specializes in studies, design and construction phase services for water and wastewater treatment plants, lift stations and collection systems. He is a Freese and Nichols Associate and Project Manager.
Not long ago, the former Titche-Goettinger department store stood windowless across from Main Street Gardens in downtown Dallas. Freese and Nichols’ architecture and construction services teams, in partnership with Ayers Saint Gross, transformed the building into the home of the University of North Texas Dallas College of Law, the first public law school in Dallas. Our team replaced the monolithic façade with two five-story-tall curtain walls, opening new views of the skyline and Main Street Gardens, a two-acre park in one of Dallas’ most historical areas. This innovative reuse effort promotes a welcoming environment to work and study.

This historical renovation has preserved a legacy building, created opportunities for higher education, stimulated demand for downtown housing and showcased Main Street Gardens. The school’s first classes began in August 2014.

Allen McRee, AIA, is a Freese and Nichols Associate and Architecture Group Manager. He has 30 years’ experience in the planning, design and construction of higher education, aviation, and military projects.

The Ric Williamson Memorial Highway in Weatherford, Texas, is the largest project in the Parker County Transportation Bond Program.
As the Panther Island development emerges, Freese and Nichols is helping bring to life a modern, innovative vision for Fort Worth, Texas. Panther Island (previously Trinity Uptown) will transform a stagnant industrial area north of downtown Fort Worth. It involves construction of a 1.5-mile bypass channel, a lake and a canal network to create an 800-acre urban waterfront community. Freese and Nichols developed the Program Management Plan that guides the Trinity River Vision Authority and partners through design, procurement and construction of 23 interconnected projects.

The gateways to the new riverfronts will be three iconic bridges designed by the Freese and Nichols team. With a thin, cast-in-place concrete superstructure and soaring V-shaped piers, the bridges will appear to float 50 feet above the landscape, lightly touching the ground every 220 feet. In addition to four lanes for auto traffic, each bridge will have dedicated bike lanes and 10-foot-wide sidewalks to promote multimodal transportation. The three bridges are projected to cost $73.7 million. Construction began in fall 2014, with the bridges scheduled to open in 2017 and 2018.

“Vision is a vital part of ensuring positive and responsible growth, and the Trinity River Vision project embraces that ideal in more than just name,” Fort Worth Mayor Betsy Price said in a statement when the construction contract was awarded. “With the support of valuable partnerships, like those with TxDOT and Freese and Nichols, which have helped make these beautiful signature bridges possible, the Vision’ of Fort Worth’s future continues to look bright.”

Because Panther Island promotes pedestrian-focused activity and interaction with the river, water quality is critical. In developing the storm drain master plan, Freese and Nichols and Dallas-based VERduNITY evaluated several green-infrastructure concepts; developed a sliding scale of LID (low-impact development) implementation under four scenarios; and, in the first use of the Envision™ economic model nationwide, prepared business case evaluations for each one.

LID elements, such as green streets, rain gardens and green roofs, remove pollutants from runoff in ways that mimic natural processes. Traditional approaches, by comparison, can miss the beneficial interaction of stormwater with the surrounding environment as drainage infrastructure removes storm runoff as quickly as possible.

“A framework for water quality is necessary to protecting the investment of the canals and lake features,” said Project Manager Scott Hubley, P.E., CFM. “The LID study defines a clear water quality vision for Panther Island and lays the foundation for future efforts.”
SUSTAINABILITY IN THREE DIMENSIONS

by Elizabeth Rivera Blackwelder, P.E., ENV SP

Freese and Nichols’ commitment to sustainability goes beyond being green. It’s also about taking a holistic approach to our work so we can be good stewards of all of our resources such as money, time and people. Through sustainable management and design, we maximize the value of our clients’ resources.

Our teams consider a project’s triple bottom line — its economic, social and environmental impacts over its lifetime. We understand that every project and every community are different, so we work with our clients to find the best balance to meet their goals. One recent example was the Line J Pipeline in Kennedale, Texas. This 2-mile, 9-foot-diameter raw water pipeline is a key part of the Tarrant Regional Water District (TRWD) delivery system.

In implementing a sustainable design, our team estimated the triple bottom line for three key processes: pipe manufacturing, pipe transportation and selection of embedment materials. Then, by laying out different design combinations, we helped TRWD select the design that best fit their priorities. We further enhanced the pipeline’s sustainable features using the Envision™ Sustainable Infrastructure Rating System, earning a Silver Award in August 2014.

When the City of Fort Worth discovered wastes containing elevated PCBs (polychlorinated biphenyls) at the long-dormant Riverside Wastewater Treatment Plant, they turned to Freese and Nichols for a solution. The wastes consisted of 5.7 million gallons of PCB-contaminated sewage sludge within nine retic sludge digesters. Freese and Nichols worked with the City, USEPA and TCEQ to evaluate disposal options. Freese and Nichols also worked with regulatory agencies and a local waste disposal company to obtain a special permit for an existing landfill located 60 miles from the site. By gaining regulatory approval to utilize this local landfill plus designing an on-site aqueous sludge treatment system for liquid wastes in the digesters, Freese and Nichols helped the City save over $3.3 million in project costs.

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Innovation

View more about this innovative study

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Freese and Nichols believes that wellness is essential in many areas of life – physical, relational, emotional and more. Through our LiveWell program, we provide opportunities to help employees remain healthy or improve their health. From workplace safety programs, stress management seminars and diabetes prevention education, to office outings, friendly athletic competitions and a focus on work-life balance, our wellness efforts center on what employees and their families can do to lead healthier lives.

Recognizing that encouragement goes a long way in helping each other improve our health, we created the Freese and Nichols Exchange on our company network, a place where employees share their personal wellness stories, post nutritious recipes, and provide information about community and fitness activities. Employees embraced the new page, sharing stories about their 110-pound weight loss, battling thyroid tumors, autoimmune diseases and metabolic syndrome, and the importance of yearly physicals.

Juan Sierra, Implementation Manager at our Dallas-Fort Worth International Airport office, shared his story of conquering high glucose levels and encroaching diabetes. “My glucose level was at 127 and it had never been above 110,” Juan wrote. “I have a family history of diabetes and I was scared to have to be dependent on insulin. I decided to do something about it. My doctor sent me to a dietician and I started walking in the company Walk-off Challenge and eating better. Through exercise and diet, I reduced my weight and my blood sugar levels have dropped below 100. This change has helped my energy levels and I am also sleeping better. My clothing size and current weight are now the same as when I was in college.”

Co-workers responded to Juan’s and others’ stories with words of support and congratulations, cheering them on to continue their healthy habits. These personal histories have inspired others to examine their own practices and change their lives for the better ... and that’s a success in our wellness book.

Parfait and smoothie mornings, fruit days and other nutritional events at the office help keep health as a priority in our minds, while book clubs, fun runs, sporting events, and wedding and baby showers all play significant roles in our relational wellness. These activities let us have a little fun with our co-workers and strengthen our relationships, all of which continually reinforces our company culture.

“Our industry can be challenging because we are responsible to our clients, and we have lots of deadlines,” Peggy Freeby, Human Resources Manager, commented. “But these efforts are part of our culture and come straight from senior management. They are really cognizant of making sure there is a work-life balance.”

Tiffany Pendley and husband Kent at the Chisholm Trail Parkway Run and Ride Event, Fort Worth, Texas

Dan Knox and wife Lindsey at the Color Me Rad 5K benefiting the Ronald McDonald House, Fort Worth, Texas

Abby Crockett and Ashley Schneider at the Buffalo Bayou Regatta, Texas’ largest canoe and kayak race, Houston, Texas

Katie Hogan at the 2013 Freese and Nichols Golf tournament, Grand Prairie, Texas

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Katie Hogan at the 2013 Freese and Nichols Golf tournament, Grand Prairie, Texas
Organizing office involvement in Meals on Wheels, participating in the annual Big Brothers Big Sisters Bowl for Kids event, and volunteering in many community activities through his church are a few of the ways Sean Barry, a transportation engineer in our Austin office, gives back to his community. “I have been very fortunate to be able-bodied, have a great education and a good job, and I want to use those blessings to serve those around me who are less fortunate,” Sean said. “Ultimately, it comes down to the ‘community’ aspect of community service – caring about our neighbors and chipping in to help is the way to make our communities a better place to live.”

Freese and Nichols supports and encourages our employees’ involvement in community organizations. We agree with Sean’s belief that giving back is the way to make our communities the best they can be. Several other employees in the Austin office follow Sean’s lead, involving themselves in numerous organizations and activities such as Keep Austin Beautiful’s Adopt-a-Creek program, Coats for Kids at Christmas, developing community gardens and The Blood Center of Central Texas blood drives. Employees across our offices participate in events like these because we share the same appreciation for our communities.

While we try to make a positive impact on our communities, the community frequently plays an important role in many of our lives; giving back to their local organizations is a way for our employees to show their gratitude. Tony Díaz, a structural engineer in our Fort Worth office, celebrated his 50th year of service at Freese and Nichols in 2014. At his request, Freese and Nichols made a $5,000 donation to the El Progreso Memorial Library in his hometown of Uvalde, Texas. Tony chose the library for the donation because he learned to love to read books there. The donation came at an important time, as the City of Uvalde had recently proposed a $50,000 cut to the library’s budget, something Tony did not know when he chose the library for the donation. “I learned to love to read books when I was 12, when I first went to the library, and that is why I wanted them to receive the donation,” Tony said. “The first time I visited, I walked up to the second floor and was amazed to see how many books were there. I checked out four books. Halfway home, I had finished reading my last book, turned around and went back to the library.”

We also encourage employees to log their community service hours, a tradition that began the year we celebrated our 110th anniversary. Last year, 33 employees logged 119 hours or more. We honored these employees at our Annual Meeting and donated $119 to community organizations chosen by each participant.

**BY THE NUMBERS, 2013**

Organizations served - 231

Hours volunteered - 9,951

Hours volunteered since 2004 - 73,465

Emily Darr collecting water samples with the Volunteer Stream Monitoring Program, Raleigh, N.C.
From our participation in national green programs to our initiatives in good stewardship of resources, our employees work hard to offer sustainable solutions for our clients’ project and program needs. Freese and Nichols has pushed the boundaries of sustainability in many areas for decades, and we’re excited to announce an addition to our list – coastal restoration.

Our environmental science services have expanded with development of our Coastal Planning and Restoration Team. From birds and fisheries to wetlands, oysters and other areas, our team has specialized study, planning and design capabilities to assist our clients with coastal restoration. The addition of coastal expertise, combined with our 120-year history of award-winning design, engineering and construction, allows Freese and Nichols to be the top provider for integrated services across Texas and the Gulf Coast. Barbara Nickerson, Environmental Science Group Manager, commented, “From stormwater and watersheds to reclamation, treatment, transmission and finally estuaries and bodies of water, we provide integrated services for every step in the water cycle. We’re very pleased to be able to offer these expanded capabilities.”

Developing our coastal team, breaking ground on Tarrant County College’s Energy Technology Center and developing sustainable water supply resources for North Texas Municipal Water District residents were a few of the projects we worked on this year. While green building design and projects protecting water and wildlife may be what first comes to mind when thinking about sustainability, our focus was also directed toward less obvious applications.

Freese and Nichols managed the design and reconstruction of Merritt Road, a two-mile corridor through the last major undeveloped area in the City of Rowlett. Guided by the North Central Texas Council of Governments’ Principles for a Sustainable Right of Way, our project team designed the Merritt Road improvements to accommodate the growth expected to follow construction of the nearby President George Bush Turnpike. Water and sewer lines and drainage culverts are sized for future land use; conduits are installed for future traffic signals; and infrastructure and right-of-way are in place to add two more lanes when needed.

The new road is environmentally friendly, economically feasible and socially acceptable. Stormwater bioswales in the medians protect water quality by impeding the flow of pollutants into the water supply, and the medians do not need to be mowed or irrigated. Redesigned intersections are more efficient, reducing idling and protecting air quality. A 10-foot-wide trail provides a safe and healthy option for pedestrians and cyclists. This project was named a 2014 Texas Public Works Association Project of the Year in Transportation.

Freese and Nichols designed the Colorado River Municipal District’s Raw Water Production Facility, which diverts effluent from the reclamation plant and treats it to near-bottled water quality. This is believed to be the first potable reuse facility in North America to blend water directly in a raw water distribution pipeline.

In partnership with ZeitEnergy, Freese and Nichols provided design-build services for a compressed natural gas station in Conway, Ark. The station services a fleet of 200-plus CNG-powered vehicles.

In response to drought and the presence of invasive zebra mussels in Lake Texoma, Freese and Nichols designed a fast-track emergency pipeline to deliver water from the lake directly to water treatment plants in Wylie, Texas.
With more than 100 Freese and Nichols employees serving on local, state and national boards and committees for professional organizations across the country, professional service is rooted deep in our company culture. This year, architect Alfred Vidaurri, Vice President and Principal in our Fort Worth office, received the 2014 President’s Medal for Distinguished Service from the National Council of Architectural Registration Boards, the highest honor bestowed by the Council. The medal was awarded to three architects and three council members across the United States, and Alfred was the only recipient in Texas.

Alfred was honored for his work in advancing alternate paths to gain NCARB certification and leading the Council’s Tri-National Mutual Recognition Program, which allows qualified architects to practice throughout the United States, Canada and Mexico. He serves as the NCARB Southern Region chair and is in his 11th year of service on the Texas Board of Architectural Examiners. For the last eight years he has served as the TBAE chair, as appointed by Gov. Rick Perry. Alfred commented, “Throughout my career, I have always felt the calling and personal responsibility to give back to my profession and community. I have found that when you have a passion for something, you make the time to get involved.”

Freese and Nichols’ tradition of serving our industries and organizations was recognized when the Texas Historical Commission presented us the Texas Treasure Business Award for making exceptional contributions toward the economic growth and prosperity of Texas for more than 100 years. The designation was sponsored by Texas Senator Wendy Davis and Representative Craig Goldman. Fort Worth Mayor Betsy Price and the Fort Worth City Council proclaimed September 16, 2014, Freese and Nichols Texas Treasure Day in honor of the recognition.

Hosting client seminars through Freese and Nichols University, speaking at industry conferences and helping others with continuous improvement journeys are a few of the ways our employees actively serve our professions. This year, we also continued our mentoring involvement in programs such as the Houston Interagency Mentor-Protégé Program, and also joined the North Texas Tollway Authority’s Relationships and Opportunities Advancing Diversity (ROAD) program as a mentor. Through the ROAD program, we are paired with a civil engineering and environmental consulting firm to help them implement performance excellence processes, create a business plan and prepare for growth.

In addition to mentoring fellow businesses, focusing on students is another passion our employees share, especially in our Raleigh, N.C., office. Freese and Nichols participated as the September Firm of the Month in Mann Hall, where civil engineering classes are held on the North Carolina State University campus. We hosted pizza parties and an office open house to give students a chance to talk with our professionals and learn about what it’s like to work as an engineer at a professional services firm. We also attended AWWA-WEA and ASCE student chapter meetings, where we gave presentations and discussed current topics with students. Our opportunities extended to three donations to the N.C. State Engineering Foundation which will be used to fund a series of awards given to exceptional students and faculty.
OUR STORY CONTINUES
Freese and Nichols is a full service professional consulting firm and the first engineering/architecture firm to receive the Malcolm Baldrige National Quality Award. With offices in Texas and North Carolina, Freese and Nichols provides services in engineering, architecture, environmental science, planning, construction services, energy and program management. For more information about Freese and Nichols, visit www.freese.com.