



Water is our most essential resource and finding a way to safeguard it for generations to come is crucial to our quality of life and growth and economic development.

Alan King

Director of Public Works,
City of Wichita

Groundbreaking event on October 22, 2020



WICHITA WATER WORKS



**2021
Annual Report**



Wichita Water Partners is a joint venture built around the design capabilities and construction leadership of St. Louis-based Alberici and Kansas City-based Burns & McDonnell.

Get in Touch

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WICHITA WATER WORKS

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The Final Step in Diversifying the City's Water Supply

Over the past decade, the City of Wichita has delivered on a strategy to diversify the City's water sources, protecting the citizens of Wichita from the effects of severe drought. The strategy includes utilizing surface water from Cheney Reservoir in times of ample rainfall, while capturing and treating excess flows from the Little Arkansas River and storing them in depleted portions of the Equus Beds Aquifer. During times of drought, the City can rely on groundwater from the Equus Beds Aquifer, and recover stored water from the City's Aquifer Storage and Recovery project (ASR). The diversified water supply strategy protects the City during times of severe drought and replenishes a depleted aquifer while protecting a valuable water supply for the City. The new Northwest Wichita Water Facility (NWWF) will allow the City to treat all water sources through a single plant with multiple treatment scenarios and full redundancy, completing the final step in protecting Wichita's water future.

Built to Do the Job

Responding to a growing need for more flexible water treatment processes to treat multiple sources of water and the growing risks associated with operating an 80-year-old water treatment plant, Wichita set out to build a new water facility with the flexibility and redundancy needed to serve its 550,000 rate payers. The site of the new NWWF sits in close proximity to the convergence of pipelines from the City's two primary water sources: Cheney Reservoir (surface water) and the Equus Beds Aquifer (groundwater).

This \$500 million, 120 million gallon-per-day water treatment facility and connecting pipelines, represents the largest infrastructure investment ever made by the City. The project is being designed and built by Wichita Water Partners, a joint venture between Alberici and Burns & McDonnell, both national leaders in collaborative project delivery along with several national and local partners.

Keeping Folks in the Know

Design-build projects of this magnitude benefit from clear, consistent communication, so our team created the Wichita Water Works educational campaign with a positive, confidence-inspiring message to key stakeholders – citizens, civic organizations, businesses, government and the media.

Branded, bold animations, infographics and lifestyle photography draw attention to key messages and encourage sharing on social media. A dedicated website – WichitaWaterWorks.com – serves as a clearinghouse for facts, information and the latest developments. People have a place to inquire about subcontracting, employment, general project updates and more. They can also sign up to receive our news so whenever we issue a press release, they get looped in. Editors and reporters can download a press package with high-resolution images and quick facts.

Watch for the pace of presentations, press releases and other outreach to increase as we achieve key milestones and have even more good news to communicate. There is more to come!



I hope that the strong partnership we've developed through this facility is the first among many between the EPA and the City of Wichita through the WIFIA program.

Kevin McDonald

Senior Underwriter,
Environmental Protection Agency's
WIFIA loan program

Groundbreaking event on October 22, 2020

Collaborative Delivery is the Right Choice for Wichita

The NWWF is being delivered in a two-phase collaborative delivery approach with Alberici and Burns & McDonnell overseeing a team of designers and contractors, while working with the City to deliver a project that meets the City's needs. This means the engineers and the contractors are on the same team, working together in the best interest of Wichita.

Phase 1 of the project included 10 months of preliminary design and management of seven design consultants and completing the loan application for the EPA's Water Infrastructure Finance and Innovation Act (WIFIA) funding, a low interest loan program targeted at helping cities overcome the cost associated with infrastructure reinvestment.

Phase 2 consisted of conducting reviews to make sure the project was being completed as efficiently as possible and developing the final pricing for the project. Good news! Wichita Water Partners' price for the project was \$14 million below the City's budget, making the project very attractive for the City of Wichita. All that effort was done with one thing in mind, bringing the project in under budget and setting the stage for Wichita to take advantage of historically low interest rates.

Early cost certainty provided by Wichita Water Partners' below-budget price allowed the City to proceed with Phase 2 – closing loans for the project, substantially reducing project risks related to rising interest rates and rising inflation. The ability to finance 49% of the project through WIFIA's low-interest 30-year loan program, married with financing from the State of Kansas's revolving loan program, allowed Wichita to accelerate the project and reduce project risks associated with potential equipment and system failures in the existing plant facilities.

With cost certainty, Wichita proceeded with loan closure at 30% design completion, locked in a 1.17% interest rate for their WIFIA loan and proceeded to construction. Savings projections on the WIFIA loan alone are estimated at \$93 million versus conventional project financing.

Our team is proud to have delivered a below-budget project for the City of Wichita and the citizens of Wichita. While there is still a long way to go in construction, Wichita is on the right path for successful project completion.

Local Connections

People You Know and Trust

Chitra Foster, the project's Senior Design Integration Manager, brings over two decades of U.S. and international experience in the engineering and construction of water and wastewater infrastructure. She is a University of North Carolina at Chapel Hill graduate with a master's degree in environmental engineering. Chitra executes collaborative delivery projects for municipal and private sector owners throughout the U.S. Over the course of her career, she has worked and lived in many parts of the world, successfully bridging cultural divides. She leads our team's efforts in designing projects to budget and is known as a strong leader, innovative thinker and excellent communicator who delivers on her commitments. With Chitra's skillful leadership and focus on process optimization, Wichita's \$500 million water project is at present time, under budget and ahead of schedule.



Firms Currently Working on the Project

Allied Equipment and Sales
 Andale Construction
 Beran Concrete
 BJM Solutions
 Bradburn Construction Company
 Central Consolidated
 CIE Wire & Cable
 CMC Rebar Fabricators
 CML Collective
 Cornejo & Sons
 Crotty & Associates
 Custom Engineering
 Dean E. Norris
 Decker Electric
 DuBois Consultants
 DWA
 Ferguson Waterworks
 Foley Industries
 GLMV Architecture
 Gravity Works
 Greteman Group
 Griffith Steel Erection
 HAAS Metal Engineering
 HDR Engineering
 Hodnett Photographics
 Hydromantis Environmental
 Kansas Business Services
 Kruse Corporation
 Layne Christenson Company
 McAfee3 Architects
 Merestone Surveying
 MKEC Engineering
 Morrow Equipment Company
 Perry Fulsom Construction
 Phoenix Rigging & Erecting
 Professional Engineering Consultants
 R.E. Pedrotti
 Red Rock Consulting
 Restoration & Waterproofing
 Roca Engineering
 RTL Equipment
 Ruby & Associates
 SJCF Architecture
 TavTech
 Tepa Engineering Services
 Wildcat Construction

Data as of March 24, 2021

Meet Local Partner Kansas Business Services

From the onset of the project, Wichita Water Partners has been committed to ensuring the City's significant investment creates opportunities in our community. Large infrastructure projects like the NWWF have the opportunity to expand local and disadvantaged businesses that support design and construction. To help identify those businesses and assist them through the procurement and contracting process is Darrius Wright and Kansas Business Services (KBS). Darrius founded KBS in 2012 and the firm has since expanded to two principals and six associates, including the addition of managing principal Donna Wright in 2015. The Wichita-based firm started by preparing certification packages for diverse small businesses. Today, KBS serves startups, small and medium enterprises, and large corporations, as well as public-sector clients around the country with organizational management, training and education, and business development services.



Kansas Business Services (KBS)

Founded **2012**

Employees **8**

Role on the Project **Labor compliance and reporting, procurement support**

Business Certifications

Woman-owned Business Enterprise
Minority-owned Business Enterprise
Emerging Business Enterprise

Meet Local Partner McAfee3 Architects

This 100% female-owned, African American firm was founded in 1963 by renowned Wichita architect Charles F. McAfee. Ownership transitioned in 2006 to his daughters, Cheryl L. McAfee and Charyl McAfee-Duncan. McAfee3 Architects is working on both the architecture for the treated-water pump stations and the high-service pump station. The pump stations are one of the final steps in the process of delivering the plant's treated water to City of Wichita customers.



McAfee3 Architects, Inc.

Founded **1963**

Role on the Project **Architecture**

Business Certifications

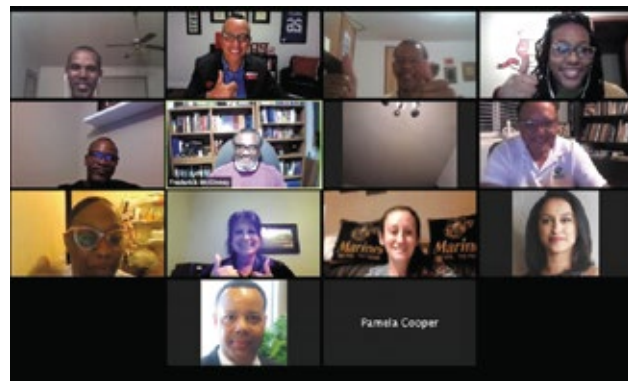
Woman-owned Business Enterprise
Minority-owned Business Enterprise

Disadvantaged Business Opportunities

Wichita Entrepreneurship & Innovation Series Provides Expert Coaching to Area Small Businesses

Being purposely disruptive or different helps set your brand apart; Business owners should become familiar with the “Blue Ocean” strategy – finding areas ripe for growth with little competition; Identify opportunities where innovation is a competitive advantage.

These are three pieces of advice shared with small business owners in Wichita as part of the Wichita Entrepreneurship and Innovation Series, a virtual small business education and coaching series.



The Fall 2020 cohort was held from August to November 2020 and featured a lineup of expert presenters under the direction of Dr. Fred J. McKinney, Ph.D., the Carl Highsmith Chair for Innovation and Entrepreneurship and the Director of the People’s United Center for Innovation and Entrepreneurship at Quinnipiac University.

Joining Dr. Fred were:

- Anthony Price, Founder and CEO of Priceless Media Group
- Steve Rogers, Retired Harvard Business School Professor, Author and one of Ebony Magazine’s 100 Most Influential People in America
- Ramon Peralta, Founder, Peralta Design
- Gerald Jaynes, Yale University

The program attracted 70 registrants who gave the series high marks for the quality, relevant information they received.

“This was extremely helpful,” one participant wrote. “With a lot of trainings you attend, you never know if it’s going to be worth your time. Within the first hour I knew I was glad to have attended.”

In addition to the virtual sessions, participants were able to benefit from one-on-one coaching with faculty members, covering a range of topics including strategy, finance, financial management, marketing, economics and innovation.

“It taught me so much about business, how to present yourself and how to actually prepare your business [for] the next level,” said Nicole Williams, series participant and owner of NCredibly Sweet, an emerging dessert company. Williams said she appreciated the coaching around having an elevator pitch to help customers connect emotionally with her business.

“I would normally say, ‘Well, I sell chocolate-covered strawberries,’ but it’s not just about that,” Williams said. “So now when someone asks me what it is that I do, I tell them, ‘I am responsible for making people happy.’”

The Wichita Entrepreneurship and Innovation Series is one of several commitments Wichita Water Partners has made to the community as part of its NWWF project. Sponsorship support from Alberici, Burns & McDonnell and Evergy allowed participants in the inaugural series to attend at no cost.

“Helping to further enrich and develop a strong entrepreneurial environment is key to expanding Wichita’s diverse business community,” said Ron Coker, Senior Vice President and General Manager, Water, for Burns & McDonnell.

The series is set to return to Wichita in 2022.

To learn more about subcontracting scopes of work, visit [WichitaWaterWorks.com/Opportunities](https://www.wichitawaterworks.com/opportunities).

Virtual Procurement Event

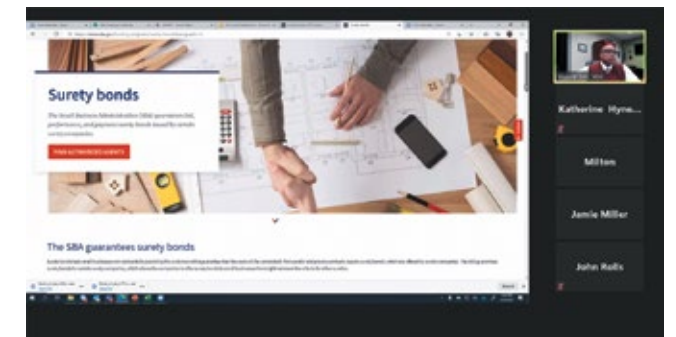
Wichita Water Partners hosted a virtual procurement event for the NWWF on February 25, 2021. The goal was to reach out to local businesses interested in potentially subcontracting on the project. Employees from more than 35 Wichita businesses registered to meet the contractor team and learn about work packages and the process for bidding on work.

The event started with a project overview, types of work available and the process for getting involved. This was followed by a brief question-and-answer session and three breakout sessions. During the registration process, participants ranked the eight breakout sessions by preference. These ranged from construction and engineering to insurance and other business services. Participants were able to meet with their top three choices. Each breakout session lasted 12 minutes and participants were able to learn more about specific topics and potential scopes and have face-to-face interactions with key project team leaders, including Dondlinger Construction, U.S. Small Business Administration, UCI Construction and Wildcat Construction.

“There was a lot of great information shared and I appreciate the time it took to put this meeting together,” said participant Deb Schmitz, Regional Account Manager for SiteBox Storage. “Thank you again.”

Wichita Water Partners is committed to changing the business environment on this project in a way that has a lasting impact on the region for years to come. The project has committed more than \$2.5 million to certified DBE/EBE/MBE/WBE firms throughout construction and has spent more than \$30 million with 25 different local vendors and suppliers to date. More than 50% of suppliers and vendors contracted with the project are locally based out of Wichita.

For more information on the subcontracting and vendor opportunities available on the project, visit [WichitaWaterWorks.com/Opportunities](https://www.wichitawaterworks.com/opportunities).



Wayne Bell, District Director for the Small Business Association’s Wichita office, presents to participants in a breakout session during Wichita Water Partners virtual procurement event for the City of Wichita’s Northwest Water Facility.



Real-World Experience & Classroom Learning are Hallmarks of Construction Apprenticeship Program

As part of their commitment to growing workforce opportunities in Wichita, project leaders collaborated with WSU Tech to develop the Apprenticeship Program for students and those who are looking to make a career change.

Five full-time construction industry positions are available as part of the pilot Apprenticeship Program, which combines classroom learning and real-world application over a two-year commitment period.

Project partners who will employ participants are: CAS Constructors, Decker Electric, Dondlinger, UCI and Wildcat. Tuition is fully covered by Wichita Water Partners for those accepted into the program.

The program is scheduled to begin June 2021.

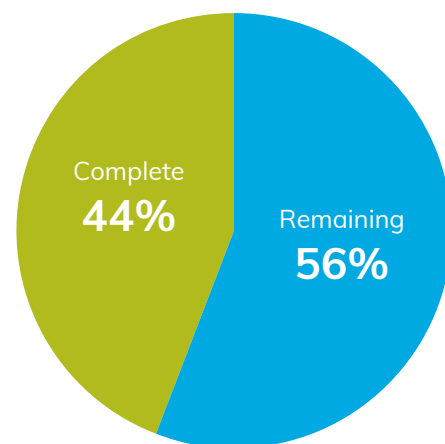
Participants have an opportunity to achieve up to three levels of NCCER Carpentry Certification with the added benefit of working under the guidance of a construction industry mentor.

To help understand workforce needs and to lay the groundwork for the Apprenticeship Program, Burns & McDonnell leaders met with representatives from the Wichita Public School's Career and Technical Education Program, the Kansas School for Effective Learning and several other community organizations in 2019.

Wichita Water Partners is a joint venture of Alberici and Burns & McDonnell. The Registered Apprenticeship Program is a workforce initiative commitment of the joint venture.

To learn more about this opportunity, please visit the Registered Apprenticeship Program Webpage: WichitaWaterWorks.com/ApprenticeshipProgram/.

Design Update



Engineering Progress
March 25, 2021

Design Element: Aerator

Aeration is one of the early processes in the water treatment facility. At this stage of the treatment process, gravity aeration helps oxidize iron, hydrogen sulfide and other volatile organic compounds in the untreated water without the use of chemicals and without significant power consumption. The aeration step works by bringing the untreated water in close contact with air to physically remove dissolved gases (such as carbon dioxide) and starts the process of removing dissolved metals through oxidization, which transforms the unwanted dissolved metals into particles that can be removed through the downstream processes of sedimentation and filtration. Counting on a reliable natural process, gravity, saves on facility operational costs.

Pilot Project

At the City of Wichita's existing Main Water Treatment Plant, Wichita Water Partners is testing and validating a type of filter media that works at a higher rate than existing state standards and is working to achieve Kansas Department of Health & Environment (KDHE) approval for the solution. Demonstrating that the project can treat water at a high rate without detriment to water quality, and receiving approval on the pilot project,

will enable Wichita Water Partners to install fewer filters in the NWWF, which will lead to significant cost savings for the project. To validate the solution, water that has gone through primary treatment is collected and directed into a 15-foot column containing the filtration media. Instruments are used to measure flow rates and water quality through the column. The finished water must meet normal requirements for filtered water at the conclusion of the process.

Site Renderings

Fall
2019



Spring
2020



Fall
2020



Construction Update

Much progress has been made in the last year to get the project where it is today. The site has been cleared and all removed trees were converted into biofuel; the site was prepared for construction activities and building foundations; two tower cranes were constructed on either side of the project site; and foundation preparation and work was completed for many of the on-site structures – this included the project’s first concrete placement.

First-Year Construction Timeline



70,000
CUBIC YARDS
OF CONCRETE

18M+
POUNDS
OF REBAR

450,000+
CUBIC YARDS OF
EARTHWORK/
EXCAVATION/BACKFILL

17+
MILES OF PIPE
ON PLANT SITE

1.6M
TRADE HOURS

20,000+
SQUARE FEET
OF FINISHED
BUILDING SPACE

Construction Update

Project Schedule

A project schedule was developed that prioritized construction activities based on their duration, or how long it takes to construct them, and how they fit into the overall construction sequence, or how they relate to other project facilities. Initial activities focused on

preparing the site for construction. In 2021, activities shifted to begin construction of the project's key water treatment facilities, including the filter building, which is currently under construction. Below is a high-level summary of the overall project schedule.

Started in 2020

- Site Preparation and Clearing
- Filter Building

Starts in 2021

- Substation
- Recarbonation Splitter Structure
- Chlorine Contact Basin
- Filtered Water/Wetwell
- Solids Contact Clarifiers
- Influent Flow Control Vault
- Influent Splitter Structure

Starts in 2022

Peak Onsite Personnel

Expected to be 350 in mid-2022

- Administration Building
- Aerators
- Chemical Storage and Feed Building
- Lime Residual Mix Tank
- Yard Pipe
- Operations Building
- Maintenance Building
- Site Pipe and Storm Pipe/Storm Drainage
- Lime Residual Pump Stations
- Clarifier Influent Meter Vault
- Offsite Pipe
- Storm Water Pump Station and Outfall
- Site Electrical
- Offsite Fiber/Duct
- Influent Flow Meter Vault
- Mix Tank and Basin Drain Pump Station
- Clearwells
- Generators/Electrical Rooms
- Thickener Decant Pump Station

Starts in 2023

- High Service Pump Station
- Disinfection Feed Building
- Main HESS Flow Valve/Pipe
- HSPS Electrical Building

The project is scheduled to be complete in 2024 with commissioning and staff training happening during that year.



We're very impressed with our contractors. They have some really stringent site controls in place now. In order to access the site you need to have your credentials, they require some training before you can go on site and a daily self-screening process for all of the crews and employees, and all of the controls are in place in order to keep them safe while they are there. So when they return back into the community they are well-protected.

Don Henry

City of Wichita Asst. Director of Public Works and Utilities

City of Wichita Livestream with Councilman Bryan Frye on April 15, 2020

Construction Update: COVID-19

COVID-19 introduced a new level of complexity into constructing the project. To protect the safety of workers and the City, a series of pandemic safety measures were put in place for anyone entering the construction site.

Pandemic Safety Measures

- Wellness screening certification
- Thorough mask, glove and face-shield requirements
- Social distancing requirements
- Cleaning guidelines
- Site condition reviews and custom rules for close proximity work



Outreach Initiatives

Gorilla Naming Fundraiser

Wichita Water Partners helped raise money for the Sedgwick County Zoo, which is the across-the-road neighbor of the City of Wichita's NWWF. To raise money for the zoo's wildlife conservation efforts, community members were able to vote on one of three names for an inflatable gorilla that will become the official mascot of the project: Eno, Amazi and HydroJoe. People could donate one dollar to vote online or by texting. The one-month naming campaign raised more than \$5,000 for the Sedgwick County Zoo Foundation, including a donation from Alberici and Burns & McDonnell. HydroJoe continues to carry out his job as the construction site supervisor and frequently makes appearances in different parts of the project site.



From left to right Ron Coker, Burns & McDonnell, Councilman Bryan Frye, Councilwoman Dr. Cindy Claycomb, Vice Mayor Brandon Johnson and Sedgwick County 3rd District Commissioner David Dennis.

\$5,000+ RAISED FOR THE
SEDGWICK COUNTY
ZOO FOUNDATION

Wichita Downtown Rotary Presentation

Civic responsibility and community-involvement are fundamental pieces of Alberici's and Burns & McDonnell's company cultures. The Rotary Club of Wichita invited Ron Coker and Brian Meier, members of the project's management team, to speak virtually to downtown Rotarians on January 11, 2021. Because some of Rotary International's main causes are providing clean water, growing local economies, and supporting education, Wichita Water Partners felt welcomed and aligned with the mission of the highly engaged virtual audience. After the project overview and explanation of Wichita Water Partners' local initiatives, Ron and Brian fielded insightful questions about the facility, the history of water supply in Wichita and how this project supports the City of Wichita's vision.


City Council District 1 Advisory Meeting

At the invitation of Vice Mayor Brandon Johnson, Wichita Water Partners participated in a virtual Advisory Meeting on April 10, 2021 providing project updates to the constituents of District 1. Ron Coker shared construction updates and discussed the project's community outreach efforts including the Apprenticeship Program partnership with WSU Tech and the Gorilla Naming Fundraiser benefitting the Sedgwick County Zoo Foundation. Darrius Wright of KBS and Christina Long of CML Collective highlighted the project's commitment to business development in the Wichita area and shared the ongoing efforts to recruit the participation of small business enterprises.

If you would like a presentation on this project, please go to WichitaWaterWorks.com and make a request in the comments section of the project.

Website Updates

The project website, WichitaWaterWorks.com, began as a tool for communicating initial plans for the project to the community and receiving input from the public. As the project transitioned into construction and interest in working on the project increased, the website was updated to serve the local subcontracting and vendor community as well as individuals looking to work on the project. By adding an Opportunities page geared toward subcontractors, suppliers and vendors, and an Apprenticeship Program page to provide information about the WSU Tech partnership, the project team is more effectively able to communicate the project needs to the Wichita community and identify local talent that can fill those needs. We encourage those interested in the project to follow our project progress on the website and also our social media channels on Facebook, Twitter, Instagram and Vimeo.

-  www.facebook.com/wichitawaterworks/
-  twitter.com/WaterWorksICT
-  www.instagram.com/ictwaterworks/

About the Team

Wichita Water Partners is built around the design capabilities and construction leadership of St. Louis-based Alberici and Kansas City-based Burns & McDonnell. Joining the team are key partners, Omaha-based HDR, and Wichita-based Dondlinger Construction, GLMV Architecture, MKEC Engineering, PEC, SJCF Architecture, UCI, and Wildcat Construction. Additional team members include several small, local or disadvantaged business partners that will be added over the life of the project.

Collectively, Wichita Water Partners team members have worked on nearly every major water infrastructure project in Wichita over the past 30 years. This includes the last major addition to the current water treatment plant, the generator building, and the Hess Pump Station. Other projects the team supported include Intrust Bank Arena, Exploration Place, Keeper of the Plains suspension bridge, Kellogg 235 interchange, East Kellogg and the new minor league baseball stadium.

