



STATEMENT OF QUALIFICATIONS

A/E SERVICES FOR CONSTRUCTION OF WATER PROCESSING FACILITY

VILLAGE OF ASHVILLE
PO BOX 195
200 EAST STATION STREET
ASHVILLE, OHIO 43103
March 14, 2022



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

March 14, 2022

Village of Ashville
PO Box 195
200 East Station Street
Ashville, OH 43103

RE: Statement of Qualifications for A/E Services for Construction of Water Processing Facility

It is with great pleasure that DLZ is presenting our Statement of Qualifications for A/E Services to the City of Ashville.

We understand Ashville's needs and will work diligently to effectively address them through the efficient delivery of this project. We have assembled a team of dedicated professionals with years of experience with these types of projects throughout southeastern Ohio. Gary Silcott, PE, will serve as the Director based out of DLZ's Logan office—just a short 39 miles from the project site.

Our team is filled with experts at securing grant and low-interest loan funds for public infrastructure projects, having attained over \$150M in recent years. Gary and his design team will be supported by specialized staff out of our Ohio offices, and we are confident that, collectively, they will do everything it takes to make this project a success and address your every concern.

We truly are members of the communities we serve because we believe in doing what is right, we stand behind our work, and we commit ourselves to provide exceptional service at a competitive fee. We highly value your consideration for future projects as well. Should you have any questions or need additional information, please do not hesitate to contact us in our Logan office at 740.380.2828.

Regards,
DLZ OHIO, INC.

Gary Bowen, CCM
Senior Vice President

Gary Silcott, PE
Director

CORPORATE OVERVIEW

DLZ Ohio, Inc. (DLZ) is a family- and minority-owned architectural, engineering and construction services firm dedicated to providing solutions that save our client's money, improve operations, and solve problems.

As a full-service professional firm, we also offer surveying, right-of-way acquisition, and materials testing. DLZ was founded as a firm specializing in water resources and civil engineering and has grown into a nationally recognized, multidisciplinary firm.

As one of the top consulting firms in the architectural and engineering industry, DLZ was named Design Firm of the Year by Engineering News-Record Midwest in 2015. DLZ is also ranked by Engineering News Record as one of the Top 500 Design Firms (#137) in the United States and the 11th largest in the Midwest.

DLZ's engineers, architects, planners, and technical support staff are innovative and understand that every project is different. The professionals at DLZ have the experience and expertise to realize that each client's needs and wants are unique. We approach each project with this in mind, and we stand behind the work that we do.

Office Locations

DLZ serves public and private entities across the nation with its' offices in Columbus, Cleveland, Akron, Cincinnati, Maumee, Logan and Bellefontaine. DLZ's collaborative approach to professional services allows us to build and lead successful project teams. DLZ will provide services for the Village of Ashville out of its Logan office.

DLZ OHIO, INC.
GARY SILCOTT, PE
30661 RED ROCK COURT, LOGAN, OHIO 43138
740.380.2828

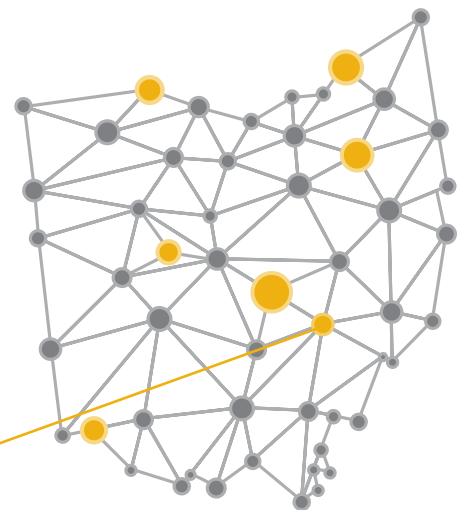
History

As proud descendants of a long and rich heritage, DLZ has been providing superior client service, improving our nation's infrastructure and solving architecture, engineering and design challenges for decades. In 2016, our parent company, DLZ National, Inc. celebrated 100 years of providing architectural and engineering services. While our Founder, Vikram (Raj) Rajadhyaksha, began to acquire the companies that became DLZ in 1978, several divisions of DLZ have been providing professional services since 1916. Today, DLZ has grown to be a nationally-recognized firm.

DLZ's reputation of providing excellent client service remains consistent. We are proud of our record of repeat business.

Our client base says it all – 85% of our work is from repeat business.

We view relationships with our clients as a long-term engagement and take the time to invest ourselves in developing a professional relationship that will be beneficial to our clients and to DLZ throughout the project and on future projects. It is a standard that DLZ is extremely proud about.



STATEMENT OF INTEREST AND QUALIFICATIONS

DLZ is interested, and uniquely qualified to work with the Village of Ashville to provide architectural and engineering services for the Water Processing Facility. DLZ's staff of experienced engineers and environmental specialists is an integral part of the firm's multidisciplinary approach to water projects. Our water services team focuses on developing a solutions-based approach to your water, sanitary, storm, and combined sewer overflow (CSO) conveyance and storage needs.

With our expertise in hydrologic and hydraulic analysis, we have designed a variety of storm water and sanitary collection, storage, and control facilities, including integrated design.

We strive to build community partnerships and utilize our vast expertise to solve complex management, planning, design, and construction challenges.

DLZ's areas of expertise include planning, design, modeling, and permitting for:

- Storm water management
- Green infrastructure
- Combined sewer overflow management
- Sanitary sewer collection system design
- Waste water treatment facilities
- Tunnels and underground structures

Water Treatment Plant Services

DLZ has extensive experience in the design of safe and economical drinking water treatment plants and has assisted numerous communities with their plant improvements. Our in-house services include: advanced facility planning, process design; site/civil, structural, electrical, geotechnical, and mechanical engineering; HVAC and plumbing design; and architectural services.

Water Supply & Distribution

DLZ's water distribution planning and design experience includes all components of water supply and distribution systems including waterline design and pumping and storage facility design. Our engineers and designers have a complete understanding of piping, valves, and hydrant systems that are required to deliver water to the customer or to the point of demand.

DLZ's past experience includes all aspects of treatment and distribution system design. Starting at the water treatment plant, we have designed high service pumps to deliver water to the distribution system. Within the distribution system, we have completed numerous booster pumping facilities that provide additional pressure, capacity and flow during maximum demand periods. DLZ is a leader in the Ohio area in designing system storage facilities including reservoirs, elevated tanks and standpipes that provide "water on demand" during periods of maximum flow and allow treatment plants to operate at a set, uniform rate rather than trying to match demand.

DLZ designs monitoring and control systems for treatment plant distribution systems. Storage tank water elevations and system pressures must be continuously monitored to ensure adequate flow and pressure is maintained in the system. Remote sensing and instrumentation permits control from a central monitoring point such as the treatment plant.

DLZ has in-house site/civil, electrical, mechanical, HVAC, architectural, plumbing, geotechnical, cost estimating, and environmental engineering disciplines, which offers a wide breadth and continuity of services. This continuity of services ensures coordination between disciplines and efficient, cost effective designs.

Our services include:

- Water treatment (surface and ground water)
- Water transmission and distribution system
- Waterline rehabilitation
- Pumping and storage systems

PROJECT UNDERSTANDING



The Village of Ashville is a growing community in Pickaway County along SR 752 near the US 23 corridor. The Village has seen substantial growth over the years and currently has a population of 4,298 and is averaging about 495,000 gallons of production per day and the plant is permitted for 650,000 gallons per day. The Village is also experiencing some operational issues at the existing water plant that was originally built in 1930's and then upgraded in 1960. The OEPA has suggested the Village work to solve the existing operational issue with the iron filters and softeners and or look for a regional provider or expand the existing facility. The Village would like to explore demolition of the 1930-1940 portion of the plant and renovate the newer 1960 portion of the plant and expand its capacity to 1.2 to 2.0 million gallons per day.

DLZ has completed numerous Preliminary Engineering Reports for unsewered communities and has a strong track record of completing them and advancing them on to construction and completion. Our success lies in our experience in completing projects similar to the Bainbridge project and our relationship with the funding agencies and RCAP. We understand that the easy ones are done and the only unsewered areas that are left are the ones that are expensive and have a small customer base to offset the costs. Our approach includes innovative ways that help reduce costs of the project, educates

the public on the need and building a working relationship with the Village that will help you complete a successful project that will be sustainable well into the future.

Having completed numerous water treatment plant Improvements project for small communities over the last few years, DLZ understands that it is critical to approach the project with grant funding agency requirements in mind. We also understand that it is important to complete a Preliminary Engineering Report to explore alternatives and evaluate options available to the Village but we also must include the community and the operators in the decision making process to ensure success of the project. Engineer can come up with all kinds of great ideas but if the community and operators are included in the decision making process then the likelihood of success diminishes. The analysis and evaluation of system improvement options will be outlined in accordance with USDA and EPA funding agency requirements. These two agencies have specific requirements which once met, will also satisfy all the other potential funding agency requirements. The hallmark of the protocol is to evaluate a minimum of three options for the project. DLZ envisions the options for this project will include exploring a traditional iron filter and ion exchange treatment facility similar to what the Village has now but with discharging issues related to high TDS with

Ion Exchange the option of using RO filtration may be valuable to the Village. We would also look at a regional connection to address OEPA suggestions. We have been able to successfully do this with other communities and determine the most economical solution for the communities.

In our approach we like to stress communication and ensure that all parties have the information they need to make an educated decision. That means we provide the decision makers with information that easy to understand and in terms that you can explain to the residents what is going on when they ask. We also encourage public meetings where we can also educate the public and look for their input. At the end of the day the users will pay for the system so making sure they understand why the Village is doing the project and giving them some say in how the system can be paid for and how they would like to see the rates structured goes a long way in generating trust.

Regardless of the preferred alternative it is the final cost to the residents that will determine the success of this project. The Village needs to take full advantage of the opportunity to obtain grant and low interest loan money to complete the project and DLZ has the knowledge, experience and relationships to make sure the Village secures every penny you can to make the project affordable and sustainable. Our approach is to provide you real world options for funding, we do not like to oversell funding to sell the project but rely on our reputation of securing the funding we say is pretty standard and then shoot for additional funding that is less standard to try and make the project come in under budget. The Village currently does not qualify as low to moderate income but that does not mean you cannot secure grants for the project. With todays construction climate and ever changing costs its imperative that work to secure as much grant money and low interest loans that we can to help keep the project affordable. We often team with RCAP to assist with the funding agencies to pull a package together that is affordable to the residents and will provide for a sustainable facility far into the future. DLZ promises this same commitment to the Village of Ashville that we will work hard to help you secure as much grant and low interest financing as is available to make your project affordable.

Once the final decision is made on the treatment process DLZ has the expert available to develop the plans and specifications to construct the project. We have designers, architects, electrical engineers, structural engineers and controls specialist that can ensure the plant will work and be something that serves the Village for years to



come. We can also assist with permitting, contract administration and construction observation. DLZ is a full service engineering firm that can take your project from concept to operations. We also pride ourselves in assisting our clients through the process. We understand that smaller communities are already stretched to your capacity with the things you have to do from day to day so we prepare funding applications, draw request and any disbursement forms for you to so that you continue to do the other duties you have from day to day to keep the Village running. We become an integral part of your team and work hard to ensure we are protecting your investment in the new plant. Our construction observation services which are already provided to the Village for your new subdivisions will also ensure that the plant is constructed to the plans and specifications. Our commitment is where we will shine and gain your trust.

The Village has internally set a schedule that you would like to have planning done by 8/25/2022 and design completed by 4/25/2023. This schedule is doable but if any grant funding is required to help finance the project, construction may lag a little bit to secure the funds. During the planning process

we can evaluate the effects on the schedule and any improvements that may need to be done to the existing plant to ensure it can meet its require limits if there is a delay in the new construction.

In addition to the items noted in the approach thus far it is important to know that the staff who will be working on this project deal exclusively with small communities and rural counties. This is an important factor in that we understand what is needed for a small community, we understand the need to keep things affordable and that we need to be creative to find ways to make your project more affordable. It is also important to note that we do not just want to come in and do one project for you, we would like to build a relationship and then help you address all your infrastructure needs and help you secure additional grants and loans to help finance your other needs as well. That kind of commitment shows that we are going to do the right thing, gain your trust and help you maintain Ashville as the beautiful community it is.



ABILITIES AND EXPERTISE TO PROVIDE SERVICES

DLZ is committed to quality control and quality management in our work. DLZ utilizes a multiple tiered level of project review, including those beyond the project architect and project engineers. Detailed reviews are also performed by the:

- Project manager, who makes sure the project goals and objectives are met;
- Department managers, who review the technical design calculations of the discipline system design;
- Division manager who reviews all aspects of the project for compliance to DLZ's high level of standards; and
- Principal-in-charge, who reviews the final submission for overall professional quality and delivery of the project.

This creates an integrated effort that produces a technically sound project that meets your overall goals and objectives.

Quality Control

The DLZ team takes great pride in the quality of services we provide to our clients. The team spends significant time documenting the issues, goals, challenges, and criteria that defines each task required to complete the project successfully. In addition, a Risk Assessment is developed which identifies potential conditions to overcome and an action plan to reduce the impact of the occurrence.

This information is carefully reviewed and potential solutions are discussed with you to allow fiscally sound decisions to be made. Information is recorded in an organized and coherent manner for communication and future reference.

We have a proven record of successful quality control throughout the design process. The procedures we follow are the product of years of development and fine tuning of our methods to make sure construction documents are complete, coordinated, and accurate. The project principal will commit staff and firm resources as appropriate. When a need arises, they will see that it is quickly met.

For day-to-day concerns, the project manager will coordinate our team of designers and consultants. In addition, the project manager is the main contact for our client and is also responsible, with assistance from our team's project principal, to achieve the design parameters and complete your project on time and within budget.

Quality Management Program

We will conduct scheduled, periodic, in-house reviews of our documents to verify completion, coordination, and professional quality. Quality management reviews of our design documents will occur at the end of key milestone submissions. Senior staff members that have not worked on the project will conduct the reviews. If a component does not meet the original criteria, the team can determine the reason and make adjustments as necessary. No final, 100% design document will be submitted without the personal review and approval of DLZ's Project Manager.

Our team's quality management program is based on four principles:

STRONG LEADERSHIP: Top management is committed to quality in all the services we provide throughout all stages of a project to completion.

EVERYONE IS RESPONSIBLE: Every member of the team is a respected contributor to the quality management effort. They are each responsible for the quality of their own work and for the overall quality of the project as a whole. We build project teams to support these concepts and emphasize dedication for the good of the project.

CONSTANT IMPROVEMENT: We learn from every completed project. By dedicating our project team members to the entire length of the project, we are able to enhance our knowledge and experience. This allows each member to expand their knowledge and make sure increased quality control is provided on subsequent projects.

CLIENT ORIENTATION: Our efforts, services, and projects are tailored to satisfy our client's needs. Our team's primary guiding principle has always been to carefully identify and understand our client's current needs, and thoughtfully anticipate their future needs.

Schedule and Cost Control

Due to the multidiscipline nature of our firm, we have the ability to work on a number of projects simultaneously. We have staff capabilities and equipment to meet all time and performance schedules for each project. Because of our complete in-house resources, our clients can be assured of a prompt response to their concerns.

DLZ has an impressive reputation for performing quality work in a timely fashion. Our project managers are skilled in directing activities of the team and coordinating the requirements of our clients to meet established schedules. We are knowledgeable in the various forms of project delivery and can work within the prescribed philosophies to complete very large and/or complex projects in a comparatively short time frame.

Schedule Commitment

DLZ is committed to delivering every project both on time and within budget. We are prepared to begin work immediately upon Authorization to Proceed. When the consultant selection has been made, DLZ will establish a timeline to incorporate all aspects of the project, from planning through construction, allowing appropriate intervals for owner reviews, building department reviews, and other agency input as will be required. Our experience with the design process gives us a unique insight into how it will affect the schedule so proper steps can be taken to expedite the completion of the project.

Cost Control Methods

Successful cost control is the result of technical excellence and effective management of the project. Only by continued administration of the team's activities through planning, organizing, directing, coordinating and communicating, can the objectives of the client and architect be economically achieved.

As part of the team, project managers at DLZ facilitate efficient performance by utilizing computerized project management and accounting systems. Architectural, engineering, planning and

analysis functions are streamlined with assistance from modern office equipment and AutoCAD™ systems.

Varying degrees of value engineering are performed at critical points during the design process as a cost containment measure. When a construction manager is part of the team, DLZ solicits their input regarding optimum detailing and value engineering to facilitate the most economical methods of construction.

Our goal is to balance the elements of project scope (size) with the cost and quality of labor and materials to stay within a fixed construction cost as established by our client. We factor life cycle and operating costs into this equation.

Our firm's approach to construction cost estimating varies depending on the type of estimate being prepared and ranges from the basic square foot cost approach to detailed estimates. Generally, we create all estimates (except the very preliminary estimates) by using a team consisting of personnel from each design discipline involved in the project providing basic cost information to the project manager.

The project manager then reviews and summarizes the costs and applies the appropriate factors (i.e., contingencies, project complexity and location factors, overhead and profit, taxes, and other items) to arrive at a final estimate.

There are three basic methods of developing construction cost estimates. These are the square foot or cubic foot method, the system or components method, and the detailed unit cost method we use. Major items and their quantities as a basis for estimating the construction costs with input data from equipment vendors, contractors familiar with local conditions, current construction cost data, and experienced estimators within DLZ.

By involving the owner, community fiscal planners, construction manager, staff and faculty in the planning process, the desired standards of quality, limitations of budget, and schedule requirements are balanced to produce a successful, cost-effective solution. By consolidating a full range of professional services in-house, we will eliminate communication/coordination problems resulting in a lower consultant fee. Change order work due to errors and omissions during construction is minimized, keeping the budget intact. How well a selected bid compares with the engineer's estimate is one guide to measure effective cost control.

KEY PERSONNEL

The staff listed in the organizational chart below are located **less than 40 miles** from Ashville, and will work with your team day-in and day-out.





Gary Silcott, PE, ENV SP

DIRECTOR

Gary has more than 28 years of hands-on experience in the fields of engineering and design, having worked within both the private and public sectors of engineering consulting for American Electric Power Company and the Ohio Department of Transportation, respectively. His responsibilities have included the design and construction of sanitary sewer projects ranging from \$75,000 to \$54M, the design and construction of water distribution and treatment projects ranging from \$30,000 to \$25M. In addition to water and wastewater system projects, Gary is also experienced in the design of road improvements, storm water management, and site design for private sector developments.

EDUCATION

BS, Civil Engineering, Ohio University, Athens, Ohio, 1995

REGISTRATIONS

Professional Engineer:

Ohio, #E-63906, 1995

West Virginia, #16416, 2005

Kentucky, #23674, 2004

project experience

City of Logan Water System Improvements, Logan, OH. *Principal in Charge.* The project consisted of the design and engineering for a 2.5 MGD membrane water treatment plant to replace the existing system. Also included was replacement of water meters in the system, addition of a water storage tank and distribution system improvements to address low pressure areas in the City. DLZ assisted the City with securing \$15 million dollars for the improvements and provided bidding, contract administration and construction observation

Water Treatment Plant Improvements, New Holland, OH. *Project Manager.* The project consisted of the design and engineering for the addition of a 150 gpm iron filter replacement. DLZ assisted the Village with securing grant funds to finance the project and provided contract administration and construction observation during construction.

Water Treatment Plant Improvements, Milford Center, OH. *Project Manager.* The project consisted of the design and engineering for the addition of a 150 gpm iron filter, high service pumps, generator and telemetry. The project was funded by OPWC and DLZ also provided contract administration and construction observation.

Water System Improvements, Wellston, OH. *Principal-in-Charge.* The project consisted of the design and engineering for a 3.4 MGD water treatment plant to replace the existing system. Also included the addition of a water storage tank and distribution system improvements to address low pressure areas in the City. DLZ assisted the City with securing \$25 million dollars for the improvements and will provide bidding, contract administration and construction observation once design is complete.

Water Treatment Plant Improvements, St. Louisville, OH. *Project Manager.* The project consisted of the design and engineering for the replacement of a 75 gpm iron filter and high service pumps. The project was funded by OPWC and DLZ also provided contract administration and construction observation.

Water Treatment Plant Improvements, Clarksburg, OH. *Project Manager.* The project consisted of the design and engineering for the addition of a pressure filter, high service pumps, red sand filters and telemetry. The project was funded by OPWC and ODSA and DLZ also provided contract administration and construction observation.



Michael Betts, PE

QUALITY MANAGER

Mr. Betts is a Division Manager with over 20 years of civil/environmental engineering experience specializing in water and wastewater conveyance and treatment. These projects include water treatment, storage, and distribution, wastewater collection and treatment systems, sanitary sewer evaluation and rehabilitation, street and sidewalk improvements, park and playground improvements, and a variety of engineering studies. Mr. Betts has a wealth of experience with trenchless technologies for new and repair/replacement projects. He is well versed with EPA regulations and knows how to successfully negotiate mandates with the OEPA establishing realistic time frames and design parameters, potentially saving substantial project costs. His knowledge of the various funding agency requirements and schedules allows him to establish cost effective project timelines and project financing programs that allow projects to be completed with minimal impact on the client's economy.

EDUCATION

B.S., Civil Engineering, The Ohio State University, 2002

REGISTRATIONS

Professional Engineer #71406, Ohio

project experience

Regional Wastewater Treatment Plant, Nelsonville, Ohio. *Project Manager.* The City of Nelsonville currently operates a 70 plus year old wastewater treatment plant at 130% of its original design capacity. We have been working to provide sanitary sewers to unsewered communities in the surrounding area and began working with the City to plan for a new 1.2 MGD WWTP to not only serve the City's needs, but those of the surrounding areas thereby becoming a regional treatment provider. We worked with the City, commissioners from two adjacent counties, two villages, and several funding agencies to develop this plan and bring it to fruition.

Water System Asset Management Plan, Numerous Public Water Systems throughout Ohio. *Program Manager.* The State of Ohio passed a bill into law that requires all public water systems in the state to create and implement an asset management program by October 2018. Mr. Betts developed a template following the EPA requirements that was designed to be simple, easily updated, and effective for small cities and villages. He worked with his team to complete AMP's for the City of Logan, and the Villages of Greenfield, Junction City, Sugar Grove, Glouster, Jacksonville, and Thornville.

Water Treatment Plant Replacement, Logan, OH. *Design Engineer.* Mr. Betts served as the design lead for the site civil and collaborated with a team of experts that designed the replacement of the City's antiquated water treatment plant, The existing plant utilized ion-exchange softening with a waste discharge to the Hocking River that no-longer complied with EPA regulations.

Sugar Grove Water Treatment Plant Improvements, Fairfield County, Ohio. *Project Manager.* The Village retained us to design a project to replace the Village's antiquated water treatment plant that has a capacity of 100,000 GPD. We also assisted the Village with securing the needed grant and low interest loan financing that will keep the project affordable for the residents.

Water Distribution System Improvements, Village of Jacksonville, OH. *Project Manager.* The Village of needed help addressing their aging water system and after seeing the progress being made in two neighboring Villages with Mr. Betts' guidance, they tasked him to manage their project. The Village, like many others, is struggling with high water loss and frequent breaks.



Robert Fuller, PE

PROJECT MANAGER

With over 14 years of environmental engineering experience, Robert brings expertise in WaterCAD and flow monitoring with a pragmatic approach to his involvement in water and other projects. He manages all aspects of SSES projects through management and fieldwork of flow monitoring and micromonitoring, including expertise in data analysis. Additionally, Robert conducts smoke testing, dye testing, CCTV coordination, and review.

After investigation and analysis are complete with the SSES findings, Robert conducts cost estimating, design, and project management of rehabilitation projects from an office specializing in grant applications. He bolsters this experience with water modeling and GIS knowledge to support his clients further. His career has included working in both the public and private sector.

EDUCATION

B.S., Civil Engineering, Ohio University, 2008

REGISTRATIONS

Professional Engineer #77410, Ohio

project experience

Sanitary Sewer Improvements, Chauncey, Ohio.

Project Manager. Mr. Fuller and his team at DLZ are in design of Sanitary Sewer Replacement for the Village of Chauncey, consisting of replacement of approximately 62 Manholes, 21,500' of Sewer Mains throughout the Village.

WWTP Facilities Project, Coalton, OH. *Designer.*

Robert provided design services for a 100,000 GPD wastewater treatment plant.

WWTP Facilities Project, Richmond Dale, OH.

Designer. Robert provided design and CAD services for a 30,000 GPD wastewater treatment plant.

City of Greenfield Flow Monitoring, Greenfield, Ohio.

Project Engineer. Robert provided flow monitoring and micromonitoring of sewers at 50 sites to determine Inflow and Infiltration sources.

Micromonitoring/SSES, Village of Laurelville, Ohio.

Project Engineer. Robert provided micromonitoring of sewers at 12 sites to determine inflow and infiltration sources. This information was combined with smoke testing and CCTV coordination to make recommendations for rehabilitation.

Walnut Creek Sewer District Micromonitoring/SSES, Walnut Creek Township, Ohio. *Project Engineer.*

Robert provided micromonitoring of sewers at nine locations to determine inflow and infiltration sources. This information was combined with smoke testing and CCTV coordination to make recommendations for rehabilitation.

City of Hillsboro Storm Water Master Plan, Hillsboro, Ohio. *Project Engineer.*

Conducted field study and design of a stormwater master plan for the Southern half of the City, with cost estimates and phased proposals for the next 10 years. Phase 1 construction to be complete 2020.

Waseca Flow Monitoring, Mr. Fuller, Ohio.

Project Engineer. This project includes flow monitoring and micromonitoring of sewers at 63 sites to determine inflow and infiltration sources over 241,500' of sewers. Robert conducted an analysis of meter data for rehabilitation recommendations.



William Boyle, PE

PROJECT ENGINEER

Mr. Boyle has more than 50 years' experience in civil engineering. He handles a wide variety of projects. His involvement is from the project infancy to the construction on these various projects. He is very experienced in wastewater treatment plants; water treatment plant; water and sewer main sizing, storm water analysis, and coordination of construction drawings, field start up services, and operation and maintenance manuals. His experience includes throughout Indiana, Ohio, Pennsylvania, and West Virginia. Additionally, Mr. Boyle has experience in the design of municipal improvement projects along with management and design of utility extension projects, including utility extensions, rate studies, pilot plants, and feasibility studies. He has designed and managed large municipal wastewater treatment plants, water treatment plants, water main extensions and gravity sanitary sewer interceptors and multiple lift stations and water booster stations. He is versed in all aspects of the project, including planning, feasibility studies, computations and plan preparation, managing a design team, and obtaining local, state, and federal permits.

EDUCATION

M.S., Environmental Health Engineering, University of Notre Dame, 1975

B.S. Civil Engineering, Valparaiso University, 1969

REGISTRATIONS

Professional Engineer, Indiana, 1974, #60015613, Ohio, 1975, #49239, West Virginia, 1982, #014853

State of Ohio, Class III, Wastewater, Operate License, 1985, #1006434-11

project experience

Wastewater Treatment Plant Upgrade, City of Elkhart, Indiana. *Design Engineer and Construction Administration.* This Project consisted of upgrading the 60MGD Influent Pump Station, Headwork's Upgrades, and UV Disinfection Improvements. The headwork' upgrades consisted of new bar screens, screenings compactor, and new vortex grit removal and grit dewatering equipment. These improvements also consisted of the elimination of gas chlorination disinfection and de-chlorination processes and replacing it with new medium intensity UV Disinfection Process. As a major part of this plant' upgrade was to improve the entire plant' SCADA System and upgrade the electrical distribution system. This was a \$15 Million construction project.

New Water Treatment Plant, City of Mishawaka, Indiana. *Design Engineer.* New well water treatment plant to supply 8.9 MGD for public water supply for the City of Mishawaka, Indiana. The new plant consisted of new wells, pumps, and new well housing; new horizontal pressure filters; new high service pumps and 1.0MG storage tank; chemical

treatment; backwash water treatment and backwash water sludge treatment and disposal. The new water treatment plant is totally automated from the well supply and throughout the remainder of the water treatment plant. The chemical treatment systems consisted of Sodium Hypochlorite, Ferric Chloride for Arsenic Removal, Hydro-Fluorsilicic Acid, Polyphosphate, Sodium Meta-Bisulfite, and Polymer Applications. As part of these improvements, were maintenance facilities, laboratory, and operator stations.

Water Treatment Plant Improvements, Disinfection Byproduct Upgrade, Village of Sebring, Ohio.

Project Manager. Installation of four new granular activated carbon vessels used to remove the THM's from the treated surface water prior to disinfection. This project also consisted of new backwash pump stations and new chemical feed process distribution and containment. \$4.8 million.

PROJECT EXAMPLES

CITY OF NELSONVILLE, OHIO

Nelsonville WWTP

The City of Nelsonville currently operates a 70-plus year old wastewater treatment plant at 130% of its original design capacity. It is quickly becoming antiquated and effluent limits are often violated due to poor performance. The City understands it needs attention but has struggled to find the resources necessary to address the problems.

Our team has been working to provide sanitary sewers to unsewered communities in the surrounding area and began working with the City to plan for a new 1.2 MGD WWTP to not only serve the City's needs, but those of the surrounding areas thereby becoming a regional treatment provider.

This approach will help leverage a greater level of state and federal grant funding in order to make the project a reality. Additionally, the City will acquire the existing sewer system in the nearby Village of Buchtel from the county commissioners so as to remove the "middle man" and lower the inflated sewer rates paid by their residents.

The flows from two additional communities will be treated by the Nelsonville Regional WWTP. Our team worked with the City, commissioners from two adjacent counties, two villages, and several funding agencies to develop this plan and bring it to fruition.

Our team completed a preliminary engineering report to identify the best treatment process and location for the new facility and determined that an oxidation ditch plant should be constructed on a new site south of the City. The proposed project will include a headworks consisting of a fine screen and grit handling equipment, the oxidation ditch, two rim flow clarifiers, UV disinfection, sludge digestion, and a dewatering system.



Design was completed in 2019 with Phase 1 of construction occurring in late 2019 and into 2020 for collection system improvements and a new master pump station. Construction of the WWTP is ongoing, and phase 3 of collection system improvements, being led by Mr. Fuller, has EPA approval for construction to commence in 2022.

WELLSTON, OHIO

Water Treatment Plant

The City of Wellston currently has two water plants that serve the City. A north plant that serves the majority of the City and a South Plant that serves a southern portion of the City and its biggest user General Mills. The north plant is from the 1930's and the south plant was constructed in the late 1960's. Both plants are in need of repair and are considered surface water plants. The north plant averages about 700,000 gallons per day and the south plant averages around 1,000, gallons per day. Upon completion of a rate analysis DLZ assisted the City in evaluating whether its would be more cost effective to upgrade both plants or build a new water plant that had the capacity to serve the entire City. The City can realize a \$300,000 per year savings by consolidating the plants and constructing a new water treatment plant. The City has decided to construct a 3.5 MGD water treatment plant and add additional storage to the system and make some distribution system improvements. The project is estimated to cost \$25 million dollars and the City is working with USDA and the OEPA for funding to construct the improvements. DLZ is in design and will provide bidding, contract administration and construction observation once the plant is permitted and bids are secured.

LOGAN, OHIO

Water Treatment Plant Replacement

We are the lead consultant for a team of experts working on the design for the replacement of the City's antiquated water treatment plant. The existing plant utilizes ion-exchange softening with a waste discharge to the Hocking River that no longer complies with EPA regulations. Prior to proceeding with design, the team evaluated several treatment process options and determined that iron / manganese filtration followed by membrane softening offered the best solution for the City. Although the cost of routine membrane replacement is comparable to annual salt costs, the savings presented by the option is realized through the ability to maintain the direct discharge to the Hocking River. The membrane reject and pressure filter backwash can be discharged to the river in compliance with EPA toxicity limits, something that would not be possible with ion exchange softening. The new 2.5 MGD treatment plant is located on the

existing site and included a new building to house the treatment and pumping equipment along with a laboratory and operations offices. The project is currently under construction and is scheduled to be complete in 2022. We provided full time construction administration and observation services for the project as well.

VILLAGE OF SUGAR GROVE, OHIO

Sugar Grove Water Treatment Plant

The Village of Sugar Grove retained our team in 2014 to perform a preliminary engineering report to evaluate the water supply alternatives available to the Village. Specifically, the options of making significant improvements to the Village's existing WTP compared to constructing a regional connection to the City of Lancaster's South WTP, located approximately two miles north, on Sugar Grove Road.

Our team completed this report in accordance with state and federal funding agency guidelines. A detailed analysis of the alternatives was completed that included capital cost, O&M cost, a present worth analysis, and non-monetary factors. The WTP Improvements Project resulted in the lowest annual equivalent project cost for the anticipated life of the project.

The Village authorized our team to design the WTP Improvements project that consisted of expansion of the existing building to accommodate adequate chemical feed facilities, restrooms, a modest laboratory, and provide space for proper access and maintenance. The iron/manganese filter was replaced and situated outside the building. The high service pumps, raw water meter, finished water meter, and other significant equipment were replaced to provide a sustainable project for the Village. The piping, contact tank and interior of the building were cleaned and recoated to correct corrosion issues. Piping modifications, including meter bypass lines, were required along with electrical and HVAC upgrades. Construction began in late 2017 and is nearing completion.

NEW HOLLAND, OHIO

Water Treatment Plant Improvements

The project consisted of the design and engineering for the addition of a 150 gpm iron filter replacement. DLZ assisted the Village with securing grant funds to finance the project and provided contract administration and construction observation during construction.

NELSONVILLE, OHIO

Water System Improvements

This project that includes system wide water meter replacement, meter reading system upgrade, replacement of several failed fire hydrants, and approximately 12,000 linear feet of water line replacement. The City's water distribution infrastructure is badly deteriorated, and crews are continuously repairing line breaks and dealing with depressurizations. This project includes the lines that are the most troublesome for the City and it is anticipated that several phases of line replacement will follow. In total, over 2,000 water meters will be upgraded or replaced and an AMI system will be installed, which will greatly improve the efficiency of monthly meter reading. The total project cost is \$3.2 million and is being funded through the EPA WSRLA with a 50% principal forgiveness component. The DLZ team provided planning, design, funding, bidding, and is now providing construction services thereby taking it from start to finish. Village of Laurelville, Ohio

Wastewater Treatment Plant Improvements

The Village is on the verge of compliance enforcement action from the OEPA due to ammonia limit violations from the lagoon treatment system during the winter months. The existing system is simply incapable of achieving adequate nitrification and denitrification when the temperature drops below five degrees Celsius. The Village retained us to explore three options to improve and three options to replace the existing system. We completed a preliminary engineering report following state and federal funding agency guidelines and found two feasible solutions for improving the existing system that were cost effective. We are currently working with Village to identify funding for the project and move it forward to design and construction.

CITY OF LOGAN

Sanitary Sewer Evaluations / Improvements Phase I & II

The City has been plagued with I&I for many years resulting in basement backups and sewer overflows. Our team worked with the City to do a Focused SSES evaluation using micromonitoring where we narrowed down the City's major issues to just 35% of the system. This saved the City over \$263,000 in planning costs and located the I&I.

Based off the results of the SSES the City moved forward with a Phase I Sewer Rehab project. The project consisted of replacing around 2,000 LF of sewer. Post monitoring shows that the project reduced the I&I by 95%.

Phase II of the project continued these efforts in reducing I&I. Our team designed the project and helped the City secure grants and low interest loans to finance the project.

VILLAGE OF GLOUSTER, OHIO

Water System Improvements

The project consists of replacing approximately half of the water distribution system throughout the Village of Glouster in Athens County Ohio. The Village had been systematically replacing the distribution system over the years, but had lost momentum when their previous consultant became unresponsive. The Village turned to us to finish the job and design the replacement of the remaining 40,000 linear feet of water line yet to be replaced. Design and bidding are complete and the project is ready to move to construction in early 2018. We helped the Village secure 50% of the project cost, over \$2 Mill, in grant funding with the balance coming from a zero percent interest loan. This kept the project affordable and feasible for the Village and will provided and improved quality of life with safe reliable drinking water and improved fire protection. We will provide construction administration and full time observation for the 18 month construction project.

HOCKING COUNTY, OHIO

Water System Improvements

The City of Logan maintains a dated water system, some of which is over 100 years old, and currently experiences a 60% water loss. After a system wide depressurization event resulting from a car hitting a fire hydrant and the City's inability to isolate the broken section of line due to nonfunctional valves, City officials have committed to significantly improving the distribution system and have looked to

us for support. First, to generate additional revenue for upgrades, the water loss must be reduced. We worked with the City to devise a systematic approach to combat this issue, starting with the replacement of the outdated large volume commercial meters serving several businesses and industries throughout the City. Some of these meters are over 50 years old and the accuracy is likely an issue. Second, the 1,000 residential water meters located inside homes or businesses will be relocated outside in water meter pits to prevent water theft, meter sabotage and estimated readings that are done when the crews cannot gain access to the interior meters that stop reporting. Finally, the project includes the installation of a water tower and the upgrade of a booster station that will allow the city to abandon another booster

station that is ready to fail, thereby reducing operation and replacement costs. The project also includes the replacement of approximately 8,000 feet of water main and the replacement of 3,300 water meters. The project is currently under construction and is scheduled to be complete in 2019. We are providing full time construction administration and observation services for the project as well.

PROJECT EXAMPLES

Bruce Walker, Service Director

The City of Logan
10 S Mulberry St, Logan, Ohio 43138
740.385.4060 / servicedirector@cityoflogan.oh.gov

BRIEF DESCRIPTION OF FIRM'S INVOLVEMENT

Planning, funding, design, bidding etc.

KEY PERSONNEL ASSIGNED

Gary Silcott, Michael Betts, Tracy Shoults

Samantha Sikorski, Mayor

Village of Glouster
16 Front Street, Glouster, Ohio 45732
740.767.3497

BRIEF DESCRIPTION OF FIRM'S INVOLVEMENT

Planning, funding, design, bidding etc.

KEY PERSONNEL ASSIGNED

Michael Betts, Tracy Shoults

Brent Ebert, Mayor

Village of Laurelville
18556 Laurel Street, Laurelville, Ohio 43155
740.332.4481

BRIEF DESCRIPTION OF FIRM'S INVOLVEMENT

Planning, funding, design, bidding etc.

KEY PERSONNEL ASSIGNED

Michael Betts, Joe Braglin

Charles Hudson

City of Wellston, Mayor
203 E. Broadway Street, Wellston, OH 45692
740.384.2720, chudson@cityofwellston.org

BRIEF DESCRIPTION OF FIRM'S INVOLVEMENT

Planning, funding, design, bidding etc.

KEY PERSONNEL ASSIGNED

Gary Silcott, Bobby Fuller, William Boyle