PUBLIC WORKS COMMITTEE AGENDA

January 26, 2026 at 5:00 PM

City Hall, 3rd Floor - Council Chambers, 828 Center Avenue, Sheboygan, WI

Notice that the Public Works Committee will meet at 5:00 p.m. or immediately following the Licensing, Hearings, and Public Safety Committee meeting.

This meeting may be viewed LIVE on:
Charter Spectrum Channel 990, AT&T U-Verse Channel 99 and: www.wscssheboygan.com/vod.

It is possible that a quorum (or a reverse quorum) of the Sheboygan Common Council or any other City committees/boards/commissions may be in attendance, thus requiring a notice pursuant to State ex rel. Badke v. Greendale Village Board, 173 Wis. 2d 553,494 N.W.2d 408 (1993).

Persons with disabilities who need accommodations to attend this meeting should contact the Department of Public Works at 920-459-3440. Persons other than council members who wish to participate remotely shall provide notice to the Public Works Department at 920-459-3440 by 12:00 p.m. on meeting day to be called upon during the meeting. All Committee members may attend the meeting remotely.

To view the meeting:
Microsoft Teams
Meeting ID: 265 567 204 844 12
Passcode: WV6XY7B4

OPENING OF MEETING

1. **Call to Order**

2. **Roll Call**

3. **Pledge of Allegiance**

4. **Approval of Minutes**
   Public Works Committee Meeting held on December 8, 2025

5. **Public Comment**
   Limit of three minutes per person with comments limited to items on this agenda.

ITEMS FOR DISCUSSION & POSSIBLE ACTION

6. Res. No. 156-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to enter into a contract with Foth Infrastructure & Environment LLC to design a major upgrade to wastewater's Kentucky Ave. pump station.

7. Res. No. 157-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to enter into a contract with Donohue & Associates, Inc. for engineering design services to demolish a 1930's digester area at the wastewater treatment plant (WWTP).

8. Res. No. 158-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to enter a contract with Strand Associates for engineering services related to an ultraviolet (UV) light disinfection transition at the wastewater treatment plant (WWTP).

9. Res. No. 159-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to execute a contract for engineering for the design of a New Jersey Avenue Trail.

TENTATIVE DATE OF NEXT REGULAR MEETING

10. Next Regular Meeting Date: February 9, 2026

ADJOURN MEETING

11. Motion to adjourn

In compliance with Wisconsin's Open Meetings Law, this agenda was posted in the following locations more than 24 hours prior to the time of the meeting:

City Hall • Mead Public Library
Sheboygan County Administration Building • City's website

CITY OF SHEBOYGAN

PUBLIC WORKS COMMITTEE MINUTES

Monday, December 08, 2025

OPENING OF MEETING

1. **Call to Order**
   The meeting was called to order at 5:00 PM

2. **Roll Call**
   Alderperson present: Chair Dekker, Vice Chair Rust, Belanger, Menzer, Boorse - 5

3. **Pledge of Allegiance**

4. **Approval of Minutes**
   Public Works Committee Meeting held on November 10, 2025

   MOTION TO APPROVE MINUTES FROM NOVEMBER 10, 2025
   Motion made by Belanger, Seconded by Rust.
   Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

5. **Public Comment**
   Bryan Kelly spoke.

ITEMS FOR DISCUSSION & POSSIBLE ACTION

6. Gen. Ord. No. 32-25-26 by Alderpersons Dekker and Rust amending Section 60-131 of the Sheboygan Municipal Code regarding permits for boat launching.

   MOTION TO RECOMMEND THE COUNCIL ADOPT THE ORDINANCE
   Motion made by Belanger, Seconded by Boorse.
   Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

7. Gen. Ord. No. 33-25-26 by Alderpersons Dekker and Rust changing the parking restrictions on the west side of North 9th Street from Erie Avenue to Ontario Avenue.

   MOTION TO RECOMMEND THE COUNCIL ADOPT THE ORDINANCE
   Motion made by Belanger, Seconded by Menzer.
   Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

8. Gen. Ord. No. 34-25-26 by Alderpersons Dekker and Rust amending various sections of the Sheboygan Municipal Code so as to allow for specially charging lead service lateral replacement and to allow those special charge revenues to provide security for the Safe Drinking Water Loan Program Lead Service Lateral Loan Program.

   MOTION TO RECOMMEND THE COUNCIL ADOPT THE ORDINANCE
   Motion made by Belanger, Seconded by Rust.
   Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

9. Res. No. 133-25-26 by Alderpersons Dekker and Rust authorizing the donation of a 2005 UTV Kawasaki Mule to Ellwood H. May Environmental Park Association of Sheboygan County Inc. ("Maywood").

   MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
   Motion made by Belanger, Seconded by Menzer.
   Before action was taken,
   MOTION TO TABLE THE RESOLUTION
   Motion made by Belanger, Seconded by Menzer.
   Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

10. Res. No. 136-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to enter into a contract with David Tenor Corporation for the 2025 Sanitary Sewer Repairs (North 16th Street – Erie Avenue to St. Clair Avenue and Kentucky Avenue – West of South 17th Street).

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
    Motion made by Belanger, Seconded by Boorse.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

11. Res. No. 137-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to enter into a contract with Cornerstone Pavers, LLC for the 2025 Street Improvements, Concrete Pavement Repairs (Mead Avenue and Wilson Avenue).

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
    Motion made by Belanger, Seconded by Boorse.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

12. Res. No. 140-25-26 by Alderpersons Dekker and Rust designating the Director of Public Works as the City's Authorized Representative for the Wisconsin Department of Transportation (WisDOT) Transportation Alternatives Program (TAP) Grant for State Funding Years (SFY) 2026-2030 and directing him to submit a WisDOT Transportation Alternatives Program Grant Application.

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
    Motion made by Rust, Seconded by Boorse.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

13. Res. No. 141-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to execute a First Amendment to Memorandum of Understanding with Ellwood H. May Environmental Park Association of Sheboygan County, Inc. relating to certain terms and conditions in the MOU.

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
    Motion made by Menzer, Seconded by Boorse.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

14. Res. No. 143-25-26 by Alderpersons Dekker and Rust authorizing the appropriate City officials to execute a Vendor Permit Agreement with Tributary Beer Garden, LLC regarding the operation of a beer garden concession in Kiwanis Park.

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION

Motion made by Belanger, Seconded by Menzer.
Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

15. Res. No. 144-25-26 by Alderpersons Dekker and Rust authorizing City officials to enter into a contract with Donohue & Associates, Inc. for engineering services related to the replacement of a wastewater treatment plant (WWTP) aeration blower.

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
    Motion made by Belanger, Seconded by Rust.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

16. Res. No. 145-25-26 by Alderpersons Dekker and Rust authorizing City officials to enter into a contract with Strand Associates for engineering services related to studying major factors to be considered should a wastewater treatment plant (WWTP) expansion be required in the future.

    MOTION TO RECOMMEND THE COUNCIL ADOPT THE RESOLUTION
    Motion made by Belanger, Seconded by Menzer.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

TENTATIVE DATE OF NEXT REGULAR MEETING

17. Next Regular Meeting Date: December 22, 2025

ADJOURN MEETING

18. Motion to adjourn

    MOTION TO ADJOURN AT 5:48 PM
    Motion made by Belanger, Seconded by Boorse.
    Voting Yea: Dekker, Rust, Belanger, Menzer, Boorse - 5

DATE: 1/22/26

TO: Public Works Committee

FROM: Jordan Skiff, Wastewater Superintendent

SUBJECT: Resolution 156-25-26—Approving Engineering Contract—Kentucky Ave. Pump Station Upgrade Design (Foth)

ISSUE: Should the Public Works Committee recommend approval of a proposed contract and budget amendment for a WWTP design contract?

STAFF RECOMMENDATION: Staff recommends approval.

BACKGROUND/DISCUSSION**:** At the February 2nd City Council meeting, I am requesting approval of an engineering design contract with the firm Foth for a comprehensive upgrade of the Kentucky Ave. pump station (KAPS). The contract is based on a proposal Foth submitted as part of a request for proposals (RFP) process. This facility accepts waste from over half of the City and was built in the 1930s. It is both critical to the City and in need of an upgrade.

The major components of the work will include installing a new generator in an outdoor enclosure (the most cost-effective approach) and using the old generator room for new motor control centers (MCCs) and electrical equipment. This will allow for a greatly simplified HVAC design for the rest of the facility while bringing the system up to current codes. Five large, problematic pumps will be replaced with more reliable submersible pumps. Finally, an emergency bypass will be restored, allowing for wastewater to be discharged to the Sheboygan River instead of backing into nearby basements in the highly unlikely event that the station ever faced the threat of being overwhelmed.

A budget amendment is required for this design contract, as the project scope is now recommended to be significantly greater than that envisioned in the 2026-2030 CIP. This is based on a thorough review of the existing facility by multiple engineers and discussions about the options available to us.

An Intent to Apply (ITA) has been submitted for a Clean Water Fund loan for this project.

IF APPROVED, NEXT STEPS: This contract will be entered with Foth, who will review design options and establish a path forward with City staff, then complete plans, specifications and bidding documents for a construction project to be bid out. Construction is expected in 2027 or 2028. WWTP staff are working with two vendors—one to confirm the condition of an existing 48” pipe, and one to replace a damaged shaft—to make sure these issues *don’t* need to be added to the contract scope.

DEPARTMENT OF
PUBLIC WORKS

2026 NEW JERSEY AVE.
SHEBOYGAN, WI
53081

920/459-3440
sheboyganwi.gov

CITY OF SHEBOYGAN
RESOLUTION 156-25-26

BY ALDERPERSONS DEKKER AND RUST.

JANUARY 26, 2026.

A RESOLUTION authorizing the appropriate City officials to enter into a contract with Foth Infrastructure & Environment LLC to design a major upgrade to wastewater's Kentucky Ave. pump station.

WHEREAS, the Kentucky Avenue Pump Station (KAPS) is a critical pump station serving over half of the City; and

WHEREAS, several KAPS components have degraded from decades of use such that comprehensive upgrading is necessary; and

WHEREAS, KAPS improvements were included within the 2026-2030 capital improvement budget, but the project scope has expanded beyond the budgeted amount of $200,000 in order to render the KAPS code-compliant; and

WHEREAS, staff has filed an Intent to Apply (ITA) for a Clean Water Fund loan to offset some of the City's anticipated costs with this project; and

WHEREAS, the City requested proposals for design plans, specifications, and construction documents ("the work"); and

WHEREAS, upon review of the submitted proposals, staff believes Foth Infrastructure & Environment, LLC to be most qualified to complete the work and desires to enter into contract for same; and

WHEREAS, Foth's estimated costs for the work range from $358,000 -$389,000 depending on options chosen by staff at the start of design. If costs beyond this range are anticipated, staff will submit a new resolution to authorize same.

NOW, THEREFORE, BE IT RESOLVED: That the appropriate City officials are hereby authorized to enter into a contract with Foth Infrastructure & Environment LLC, on a form approved by the City Administrator and City Attorney, for the Kentucky Avenue Pump Station upgrade.

BE IT FURTHER RESOLVED: That the Finance Director is authorized to draw funds ranging between $358,000 -$389,000 from Acct. No. 630361-631200 (Wastewater Fund—Wastewater—Building Improvements), upon the agreement being fully executed by all parties, to pay for the design pursuant to the agreement.

PASSED AND ADOPTED BY THE CITY OF SHEBOYGAN COMMON COUNCIL _____.

Presiding Officer	Attest
_____	_____
Ryan Sorenson, Mayor, City of Sheboygan	Meredith DeBruin, City Clerk, City of Sheboygan

Foth

PROJECT PROPOSAL SUMMARY

Project Title (the "Project"): Kentucky Avenue Pump Station (KAPS) Upgrade

FOTH Project Number:

CLIENT Project Number: (If applicable)

CLIENT: City of Sheboygan

Address: 3333 Lakeshore Dr., Sheboygan, WI 53081

Phone No: (920) 459-0220 Email Address: Jordan.skiff@sheboyganwi.gov; JS996@sheboyganwi.gov

Scope of Services: Client hereby agrees to retain Consultant to perform the following Services:

Design and construction administration related engineering services for the Kentucky Avenue Pump Station (KAPS) as outlined in Exhibit A.

Schedule: Services shall be performed according to the following schedule:

Design services to start upon authorization and follow the estimated durations shown in Exhibit A. Construction administration services to coincide with individual construction contract TBD.

Compensation: In consideration of these Services, the Client agrees to pay Consultant compensation as follows:

☒ Unit Cost/Time Charges (Standard Rates) for an estimated cost range for design phase services is $358,000 to $389,000. The final cost, within that range, will depend on the design option selected by the City, following an options evaluation conducted at the start of the design phase.

Optional Gate Assistance Allowance (Added to the above estimated cost if selected): Includes up to 40 hours of engineering effort (or a maximum of $8,000) to assist with existing gate repairs and potentially incorporate those repairs into the project. These efforts will be tracked separately. If the allowance is exceeded, any additional work can be agreed upon and added through a future Addendum.

Note on River Overflow Site: Through the design, Foth is planning to re-establish the mechanical functions of the structure and detail cleaning requirements. If the City requests Foth to engage with the DNR or other entities regarding allowable use, permitting, public engagement, agreements, etc., additional scope and efforts will be added accordingly through an Addendum.

Note on Construction Administration: Construction Administration efforts are not included in the estimated cost above. Additional compensation related to construction administration services, if requested, will be added through an Addendum. The scope of construction administration services will be determined after the design phase is complete and once the level of construction administration effort provided by Foth is agreed upon with the City.

EXHIBIT A

Note:
Per the City's request, an options evaluation has been added to the design phase, which is not described in this document. This evaluation will be conducted at the start of the design phase to assist the City in determining the final design scope.

CITY OF SHEBOYGAN
PUBLIC WORKS

Engineering Services for Kentucky Ave. Pump Station (KAPS) Upgrade

RFP NUMBER: R25-WWTP-01
November 14, 2025

Foth Infrastructure & Environment, LLC
7044 S. Ballpark Drive, Suite 200
Franklin, WI 53212

Client Contact:
Daniel F. Snyder, PE
414.336.7918 Off
262.939.0709 C

Foth Infrastructure & Environment, LLC

7044 S Ballpark Drive
Suite 200
Franklin, WI 53132

5117 West Terrace Drive
Suite 401
Madison, WI 53718

www.Foth.com

Client Contact
Daniel F. Snyder, PE
414.336.7918
Dan.Snyder@Foth.com

Project Manager & Co-Designer
Dale Broeckert, PE
608.628.3163
Dale.Broeckert@Foth.com

Lead Process Designer
Matthew Eberhardt, PE
608.242.5928
Matt.Eberhardt@Foth.com

Electric, Controls & SCADA Sub-Consultant:
Grindeland Engineering, Milwaukee
Bruce Grindeland, PE
262.777.9105
Bruce@Grindeland.net

Structural & Architectural Sub-Consultant:
EUA, Green Bay/Milwaukee
Cole Sladky, AIA
920.278.0342
ColeS@EUA.com

HVAC & Plumbing Sub-Consultant:
IBC, Milwaukee
Mike Roller, PE
262.522.4422
MikeR@IBCEngineering.com

November 14th, 2025

Jordan Skiff, Wastewater Superintendent
City of Sheboygan Department of Public Works Wastewater Division
3333 Lakeshore Drive | Sheboygan, WI 53081

RFP # R25-WWTP-01, Engineering Design for Kentucky Avenue Pump Station Upgrade

Dear Mr. Skiff:

Thank you for the opportunity to present our proposal for engineering services for the Kentucky Avenue Pump Station (KAPS) Upgrade project. We appreciate the City's trust and have a strong understanding of goals and objectives for this important initiative.

Since our initial site investigations in 2020, our team has thoroughly assessed the project's scope and objectives. From this, we developed a tailored approach that goes beyond the RFP's standard requirements. The plan includes major equipment replacements designed for a 20–30-year lifespan, a strategy to cut long-term HVAC operational costs by approximately 50% through creating two distinct HVAC zones, and significant savings by eliminating the need for major bypass pumping during construction. These enhancements are detailed in the proposal, presenting the most effective long-term solution for the City while highlighting our capabilities, expertise, and proven experience with complex pump station projects.

How Foth can assist with KAPS improvements:

Extensive pump station experience and troubleshooting expertise.
An extensive portfolio of designs and retrofits enables the delivery of practical, cost-effective solutions backed by proven results.

Firsthand knowledge and tailored approach for KAPS's critical role.
Our team has visited the KAPS site and designed dozens of similar pump stations, bringing a deep understanding of operational nuances that significantly impact operator satisfaction and long-term operational costs.

Commitment to smart spending and maximizing the investment return.
Close collaboration with clients identifies the best investments, incorporates thorough alternative analyses, and eliminates wasteful expenditures.

Local presence and dedication to long-term partnerships
Based in Wisconsin, our team is dedicated to building lasting relationships within the communities we live, work, and serve.

We would be honored to collaborate with the City on this vital project. Our commitment is to address current challenges with effective, innovative solutions while ensuring improvements remain as economical as possible.

Foth is prepared to execute the City's standard consulting agreement with certain revisions incorporated to align with the terms and conditions currently governing our other projects for the City. Alternatively, if preferred, we are willing to enter into an agreement identical in form to those previously executed for similar work.

Sincerely,

Foth Infrastructure & Environment, LLC

Daniel Snyder, PE
Client Contact

Dale Broeckert, PE
Project Manager & Co-Designer

PROJECT DESIGN TEAM

KENTUCKY AVENUE PUMP STATION UPGRADE

Our professionals provide flexible, engineering-led delivery methods and a dedicated core team of consistent resources. The objective is to establish a strategic partnership focused on a win-win solution that meets your definition of value. To do so, our team will maintain the availability and capacity required to meet the project schedule.

CITY OF SHEBOYGAN
PUBLIC WORKS

DANIEL SNYDER, PE
Client Contact

DALE BROECKERT, PE
Project Manager & Co-Designer

Equipment Selection, Sequencing Strategy, Controls & Constructibility Coordination

MATT EBERHARDT, PE
Lead Process Designer

Hydraulics, Process, Pump Station Features/Function, Deliverables Quality Control

IKE BERTELS, PE
Project Engineer

Process & Site Design

BRUCE GRINDELAND, PE
Lead Engineer

Electrical, Controls, & SCADA Design

COLE SLADKY, AIA
Lead Structural & Architect

Structural & Architectural Design

MIKE ROLLER, PE
Lead Engineer

HVAC & Plumbing Design

SUBCONTRACTORS & PARTNERS

Grindeland Engineering • Electrical, Controls, & SCADA Design

EUA • Structural & Architectural Design

IBC Engineering • HVAC & Plumbing Design

DAN SNYDER, PE | CLIENT CONTACT

BS Civil Engineering | MS Civil Engineering | License: WI
Years Experience: 50

Dan brings 50 years of experience in civil engineering and has worked on hundreds of infrastructure projects from planning through construction. His expertise includes pump stations, interceptor sewers, water systems, detention basins, culverts, roadways, and channel improvements. Dan has partnered with many communities to identify and implement practical solutions that improve service for residents. He is skilled at managing projects with tight permitting requirements and aggressive schedules, ensuring timely and compliant delivery.

Relevant Project Experience - Partial List

KR Lift Station Design, Village of Mount Pleasant, WI. Project Manager/Client Contact.
Pike River Lift Station Design, Village of Mount Pleasant, WI. Project Manager/Client Contact.
Southside Interceptor, City of Sheboygan, WI. Project Manager/Client Contact.
I-94 Corridor Lift Station, Village of Raymond, WI. Facilities Planning Project Manager, Project Manager/Client Contact.
Pike Creek Lift Station, Village of Somers, WI. Design Manager/Client Manager.
Lakeview Corp Park Lift Station, Village of Pleasant Prairie, WI. Design Manager/Client Contact.

DALE BROECKERT, PE | PROJECT MANAGER & CO-DESIGNER

BS Civil Engineering | License: WI
Years Experience: 21

Dale has over 20 years of experience in the areas of civil engineering, construction estimating and management, water system design, and engineered water and wastewater pump and control systems. He has been involved in some capacity with work on over 60 lift stations.

In addition to his work in the consulting industry, Dale has spent several years in the construction, pump, controls, and SCADA industries. As a result of these experiences, he brings a unique understanding of the contractor, engineer, owner, and vendor perspectives to projects and bidding. Dale is also involved throughout the water and wastewater industry in the upper Midwest.

Relevant Project Experience - Partial List (see tables to follow)

Hoods Creek Attenuation Basin Expansion Design, Caledonia Utility District, WI. Lead Pump Selection & Application Engineer.
White Potato Lake Lift Station, Town of Brazeau, WI. Lead Pump Selection & Application Engineer.
WWTP Lift Station, Village of Pepin, WI. Lead Pump Selection & Application Engineer.
KAPS Existing Pump Performance Evaluation, City of Sheboygan, WI. Lead Testing Engineer.
Metro #18 Lift Station, City of Madison, WI. Lead Pump Selection & Application Engineer.
Elk Vale Lift Station Rehab, City of Rapid Valley, SD. New Pump Application Review Engineer.

> **The planning team at Foth acts as an extension to our staff and is always intent on the goal of making our community a better place to live and do business in.**
> Kari Morgan | Village of Raymond, WI

MATT EBERHARDT, PE | LEAD PROCESS DESIGNER

BS Civil Engineering | MS Environmental Engineering | License: WI, IA, MN
Years Experience: 21

Matt is a process engineer with over 20 years of consulting experience. His responsibilities include planning studies, design, and construction services for municipal and industrial wastewater pumping and treatment systems. Matt has significant wastewater facility experiences and is skilled in leading design teams and coordinating technical work products. He has worked extensively in both rehabilitating existing systems and designing new systems.

Matt's work in lift station rehabilitation and expansion has included design of pumping systems, in-channel grinders, and odor control systems. He is also skilled with flow projections, hydraulic calculations, condition assessments, and cost estimating.

Relevant Project Experience - Partial List (see tables to follow)

KR Lift Station Design, Village of Mount Pleasant, WI. Lead Process Engineer.
Hoods Creek Attenuation Basin Expansion Design, Caledonia Utility District, WI. Lead Process Engineer.
Central Lift Station and Attenuation Basin Facilities Plan, Caledonia Utility District, WI. Lead Engineer and Project Manager.
Dominican Lift Station Design, Caledonia Utility District, WI. Lead Engineer.
St. Bonifacius (L24) Lift Station Design, Metropolitan Council Environmental Services, MN. Lead Engineer.
Pike River Lift Station Design, Village of Mount Pleasant, WI. Lead Process Engineer and Technical Project Manager.
Elk Vale Lift Station Rehab, City of Rapid Valley, SD. Lead Process Engineer.

IKE BERTELS, PE | CO-PROCESS & SITE DESIGN

BS Civil Engineering
Years Experience: 5

Ike is a water and wastewater engineer with five years of consulting experience, providing planning, design, and construction services for municipal water and wastewater treatment and distribution systems. His expertise includes technical design for new and existing systems, pump performance analysis and optimization, expansion phasing, and cost estimation.

Ike has worked on lift station expansion and rehabilitation projects, including greenfield WWTP pumping systems, peak flow bypass pumping and filtering systems, and technical reviews of lift station design. He is skilled in hydraulic calculations, force main design, wastewater coating products, and process valve replacement.

Relevant Project Experience - Partial List

Hurricane Creek Regional Water Reclamation Facility, City of Anna, TX. Civil Design Analyst & Task Manager.
WWTP Lift Station Improvements, City of Whitewright, TX. Civil Design Analyst and Task Manager.
Data Center Industrial Wastewater Lift Station Design, West Memphis, AR. Project Manager and Lead Design Engineer.
Wastewater Lift Station Design Reviews, City of Denison, TX. Civil Design Analyst.
Well Pumping Station and Storage Tank, Leonard, TX. Civil Design Analyst.
Lakeland WTP HMO Addition and Improvements, City of Elkhorn, WI. Project Civil Engineer.
BRCC WTP and Storage Building, Black River Falls, WI. Project Civil Engineer.

SUBCONSULTANTS

GRINDELAND ENGINEERING | ELECTRICAL, CONTROLS, & SCADA DESIGN

Foth and Grindeland Engineering (Grindeland) partner on all water/wastewater/stormwater projects involving electrical, controls, and SCADA. Grindeland is a full-service electrical, controls, and SCADA design group that has multidisciplinary staff, including troubleshooting, design, CAD, P&IDs, PLC/HMI programming checks, and field technician work.

IBC ENGINEERING | HVAC & PLUMBING DESIGN

ibc engineering services, inc.

Foth and IBC partner on all water/wastewater/stormwater projects involving mechanical components such as HVAC and plumbing. IBC is a robust group providing full-service plumbing and HVAC design and calculations. Their staff is well-versed in troubleshooting, design, and startup of systems.

EUA | STRUCTURAL & ARCHITECTURAL DESIGN

eua

Foth and EUA partner on structural and architectural facility projects across our various business units. EUA brings an excellent group of experts that carefully tailor their team members to the needs of each individual project and client. Their staff is well-versed in heavy mechanical and industrial facilities along with the careful touches that go into the arts, historic, and aged facilities.

These teamed partnerships have provided excellent outcomes for our clients time and time again. Together, we work seamlessly to find the best and most complete solutions.

BRUCE GRINDELAND, PE | ELECTRICAL, CONTROLS, & SCADA DESIGN

BS Electrical and Electronics Engineering | License: WI, IA
Years Experience: 40

Bruce brings 40 years of experience in the water and wastewater industry and is a licensed professional engineer in Wisconsin and Iowa. Before founding Grindeland Engineering, he spent 20 years with a systems integration company and previously worked as an electrical engineer for a Wisconsin consulting firm. Bruce's project experience includes treatment plants, pump stations, elevated storage tanks, booster stations, and other process facilities. He has extensive expertise in custom pump station control panels, MCCs, RTUs, SCADA integration, remote monitoring solutions, and site electrical upgrades. His background ensures reliable, efficient electrical and control systems for complex municipal projects.

Relevant Project Experience - Partial List

KR Lift Station Design, Village of Mount Pleasant, WI. Lead Electrical & Controls Engineer.
Central Lift Station Design, Caledonia Utility District, WI. Lead Electrical & Controls Engineer.
Dominican Lift Station Design, Caledonia Utility District, WI. Lead Electrical & Controls Engineer.
Pike River Lift Station Design, Village of Mount Pleasant, WI. Lead Electrical & Controls Engineer.
Little Beaver Creek Lift Station, Johnston, IA. Lead Electrical & Controls Engineer.

STEVE GRINDELAND, PE | ELECTRICAL, CONTROLS, & SCADA DESIGN

BS Electrical Engineering |License: WI, IA
Years Experience: 15

Steve is a licensed professional engineer in Wisconsin and Iowa with more than 15 years of experience in the water and wastewater industry. Before joining Grindeland Engineering, he spent 10 years as a project manager, electrical designer, and estimator for a systems integration company. Steve's expertise includes electrical engineering, specification development, CAD, estimating, and project management. His focus areas include the design of lift stations, booster stations, wells, elevated storage tanks, and treatment plants. His background ensures practical, reliable solutions for complex electrical systems in municipal projects.

Relevant Project Experience - Partial List

KR Lift Station Design, Village of Mount Pleasant, WI. Electrical & Controls Engineer.
Central Lift Station Design, Caledonia Utility District, WI. Electrical & Controls Engineer.
Dominican Lift Station Design, Caledonia Utility District, WI. Electrical & Controls Engineer.
Pike River Lift Station Design, Village of Mount Pleasant, WI. Electrical & Controls Engineer.
Little Beaver Creek Lift Station, Johnston, IA. Electrical & Controls Engineer.

MIKE ROLLER, PE | HVAC & PLUMBING DESIGN

BS Mechanical Engineering | License: WI
Years Experience: 43

With over four decades of technical HVAC and Plumbing project management and design experience, Mike has worked on a broad range of projects for municipal, industrial, and institutional clients. He consistently demonstrates great attention to detail and has been an invaluable asset to IBC Engineering. His portfolio includes HVAC & plumbing projects for lift stations, various wastewater process buildings, well houses and water filtration buildings throughout Wisconsin, Minnesota, and Illinois.

Relevant Project Experience - Partial List

KR Lift Station Design, Village of Mount Pleasant, WI. Lead Plumbing & HVAC Engineer.
Hoods Creek Attenuation Basin Expansion Design, Caledonia Utility District, WI. Lead Plumbing & HVAC Engineer.
Central Lift Station Design, Caledonia Utility District, WI. Lead Plumbing & HVAC Engineer.
Pike River Lift Station Design, Village of Mount Pleasant, WI. Lead Plumbing & HVAC Engineer.

MARK BRESNEHAN, RD | HVAC & PLUMBING DESIGN

BS Mechanical Engineering | License: WI
Years Experience: 25

Mark brings more than 20 years of experience in HVAC and plumbing design for municipal, industrial, and institutional projects. His work reflects strong attention to detail and a commitment to quality, making him a trusted resource for IBC Engineering. His portfolio includes lift stations, wastewater process buildings, well houses, and water filtration facilities across Wisconsin, Minnesota, and Illinois.

Relevant Project Experience - Partial List

KR Lift Station Design, Village of Mount Pleasant, WI. Lead Plumbing & HVAC Designer.
Hoods Creek Attenuation Basin Expansion Design, Caledonia Utility District, WI. Lead Plumbing & HVAC Designer.
Central Lift Station Design, Caledonia Utility District, WI. Lead Plumbing & HVAC Designer.
Pike River Lift Station Design, Village of Mount Pleasant, WI. Lead Plumbing & HVAC Designer.

COLE SLADKY, AIA | STRUCTURAL & ARCHITECTURAL DESIGN

BS Architecture | License: WI
Years Experience: 13

With over a decade of experience, Cole is adept at delivering projects on budget and schedule. He is skilled at understanding how much a project will cost early in the design process, which guides his big-picture approach to completing the work. Cole's optimism radiates through his team on every project, and he looks forward to sharing his enthusiasm with you on your project.

Relevant Project Experience - Partial List

Abbyland WWTP Addition, Abbotsford, WI. Structural & Architect Project Manager, Design.
Abbyland WWTP Screening Building, Abbotsford, WI. Structural & Architect Project Manager, Design.
Agropur MBR Building, Weyauwega, WI. Structural & Architect Project Manager, Design.

SCOTT UHEN, AIA, NCARB, CDT | STRUCTURAL & ARCHITECTURAL DESIGN

BS, MS Architecture | License: WI
Years Experience: 18

Scott brings a wealth of experience in project management, spanning everything from small-scale renovations to large, complex building developments. He is highly skilled in coordinating design documentation, managing consultant teams, and navigating technical building requirements and safety codes. Known for his organizational precision and attention to detail, Scott ensures that every project runs smoothly from concept to completion.

Relevant Project Experience - Partial List

Waukesha Memorial Hospital Central Utility Plant, Waukesha, WI. Structural & Architect Design.
Lockheed Martin Building 350 Facility Refurbishment, Denver, CO. Structural & Architect Design.
Baird Center, Milwaukee, WI. Structural & Architect Design.

PROJECT UNDERSTANDING

EXPECTATIONS & KEY CHALLENGES

Serving over half the City, the Kentucky Avenue Pump Station (KAPS) is a critical component of Sheboygan's wastewater infrastructure. Originally constructed in the 1930s, with partial updates in the 1970s, the facility now faces significant operational and compliance challenges due to aging equipment, outdated systems, and various operational issues.

The City has identified the need for a comprehensive upgrade to restore reliability, reduce clogging and other frequent operational issues, and ensure regulatory compliance. Additionally, the project includes reinstating the river overflow safety site, which provides a final level of overflow protection during emergencies. Our team understands that the scope of this project encompasses key design aspects across mechanical, electrical, structural, HVAC, and process/operational systems.

KEY OBJECTIVES INCLUDE:

- Reinstating function of the river safety site
- Eliminating frequent pump clogging
- Repairing or replacing problematic valves
- Addressing localized issues with the discharge piping
- Updating building ventilation to meet code requirements
- Modernizing outdated electrical controls & backup generator system

Overall Objective

Provide an upgrade to re-establish a 20–30-year lifespan on all major equipment and station functions.

Due to the critical nature of this station, minimizing disruption during construction is essential. The scope has been tailored to avoid the substantial expense and risks associated with implementing a large-scale bypass pumping system. We recognize the City's commitment to energy efficiency and smart technologies—values that align closely with our own. For this reason, our approach integrates these priorities and we continually seek opportunities to incorporate them where they deliver the greatest impact.

Working closely with City staff throughout every phase our approach will provide alignment on decisions, address site-specific challenges, and deliver a design that meets the City's goals for performance, compliance, safety, and long-term value. Coordination and support with the Clean Water Fund is also planned to help optimize funding opportunities and maintain compliance with program requirements.

OUR APPROACH

PROVIDING THE BEST LONG TERM INVESTMENT

The scope and objectives outlined in the RFP have been carefully evaluated, resulting in a customized approach that strategically deviates from the original framework. This design resolves all major aged-equipment issues immediately while providing a long-term solution with an expected lifespan of 20–30 years. By taking this strategic approach, we believe hundreds of thousands of dollars can be saved by avoiding bypass pumping costs during construction. These savings would be best invested into new equipment that will serve the City for decades to come.

OUR MAJOR STRATEGIES FOR SAVINGS & BEST LONG TERM INVESTMENT

Avoiding Discharge Header Piping Replacement. Replacing discharge header piping and installing a large-scale bypass system adds cost and risk. We propose ultrasonic thickness testing on the manifold and discharge piping. If testing confirms the pipe is in near-new condition aside from minor surface repairs, we will avoid replacement.

Creating a Separate Entry & Separate HVAC Zones. The proposed approach creates two distinct HVAC zones to meet code compliance and improve energy efficiency. The upper floor, which houses high-value MCCs, controls, and SCADA equipment, will be designated as a de-rated space with superior climate control—protecting and extending the life of this critical infrastructure. The lower zone, encompassing all other floors, will be classified as Class 1 Division 2 and will feature a separate sealed entrance near the stairway. It will include specialized circulation requirements based on occupancy status. During early design, feasibility of sealing the upper floor from the lower levels will be evaluated. Once confirmed, this strategy should enable a two-thirds reduction in air circulation requirements for the Class 1 Division 2 zone when it is in its unoccupied state, resulting in annual estimated HVAC operational cost savings of approximately 50% or more compared to the standard 6 ACH tempered continuous ventilation approach.

Full Replacement of Pumps with New Dry-Pit Submersible Pumps with Non-Clogging Technology. Class 1 Division 2 dry-pit submersible pumps with advanced impeller designs will be installed, eliminating the line shaft system and enabling full HVAC zone separation. Self-reversing de-ragging technology removes the need for mixer or chopper pumps, reducing costs. Pumps will be sized to increase flow capacity, which will be documented in the Facility Plan for DNR submission.

Full Replacement of Class 1 Division 2 Rated Electrical Equipment/Fixtures in the Lower HVAC Zone. All new Class 1 Division 2 rated electrical equipment and fixtures will be designed and specified for the lower HVAC zone to meet the updated area classification. This includes installing new LED lighting, modernized switches, and consolidating or removing unnecessary electrical components to enhance safety and efficiency in the space.

Full Replacement of Motor Control Center w/Integral VFD Space. A completely new MCC lineup will be designed and specified to replace the aged and obsolete equipment. The new MCC and control systems will be installed in a different location, allowing the existing equipment to remain operational during the transition. Once the new MCC is in place and connected to a separate power feed, pumps will be transferred one at a time, ensuring that four of the five pumps remain online throughout the upgrade. This approach enables installation of required conduit seal-offs for the electrical conduits, which are necessary to establish the separate HVAC zones.

Full Replacement of Generator. A new diesel generator will be selected to replace the aged and obsolete unit. Previous evaluations confirmed that replacement parts for the existing generator are no longer available. During the design phase, collaboration with the City will determine whether the new generator is best suited for installation in the existing location or as an exterior sound-attenuated unit. Fuel storage requirements will also be reviewed and factored into this comparison. This replacement strategy ensures a functional and maintainable generator for the next 20–30 years.

3D Scan of the Interior and Exterior of the Facility. A comprehensive 3D survey scan of both the interior and exterior of the facility will be performed. This scan will generate a highly accurate point cloud, providing detailed dimensional data for the entire facility. The information will be critical for precisely locating new walls, illustrating mechanical piping modifications around pumps and valves, positioning HVAC equipment and ductwork, and assessing available space for equipment installation and removal. Enhanced accuracy in these plans will significantly reduce unforeseen conflicts during construction and help minimize the potential for costly change orders.

PROJECT APPROACH
CUSTOMIZED SCOPE ITEMS

Note:
Per the City's request, an option[illegible]tion has been added to the design ph[illegible]ich is not described in this document. This evaluation will be conducted at the start of the design phase to assist the City in determining the final design scope.

Item 6.

Below is a customized scope designed to provide the best overall long-term investment. This strategy avoids unnecessary bypass costs and directs resources toward new equipment that will deliver reliable performance and expected results for decades to come. We have utilized a Track-Change format to allow for easy comparison with the original RFP scope. Note, the final project scope will be determined collaboratively between Foth and City staff.

Engineering design for an upgrade project with the following anticipated components:

a. Structural/Architectural

i. Construct chain-link fence along the west property line.

ii. Reinforce stand-alone brick wall shielding pad-mounted transformer.

~~ii.~~1. Confirmed existing condition was poor and the brick needs to be replaced – proposed solution to replace brick with single wythe CMU and a precast cap on top to reduce water intrusion.

iii. Evaluate supports to ensure adequacy for increased loads (new air handlers, piping, etc.).

iv. Add caged ladder to exterior wall for roof access, with locked entry gate and/or removable lower section.

v. Paint interior walls.

~~v.~~1. Per the pre-proposal site visit, the first-floor existing block will remain as is due to being in good condition; below grade levels (equipment platforms) will receive selective painting, i.e. areas where paint is currently peeling away from existing substrate.

vi. Remove 1st floor tile, grind & seal concrete.

~~vi.~~1. Per the pre-proposal site visit, the existing floor tile was in good condition, not requiring removal, grinding, and sealing of the existing concrete.

vii. Replace front double doors & insulated north overhead door.

viii. Replace glass block with brick. Retain operable windows for ventilation.

ix. Replace concrete face pieces above block windows.

x. Add new entry/egress door to the east side of the building. The door will lead to an interior vestibule to create two (2) separate HVAC zones, separating the main floor from the lower floors. The vestibule's mezzanine will be structurally designed to hold the weight of new HVAC equipment being added for the lower Class 1 Division 2 zone.

xi. Add a structural plate designed to cover the existing first floor equipment access opening located along the west wall near the electrical gear. The plate will create an air tight separation between the first floor and the lower floors. The cap will be designed with a lifting handle for the crane hook.

~~ix.~~xii. Cap the five (5) existing first floor penetrations upon removal of the existing motors and line shafts to create an air tight separation.

~~x.~~xiii. Tuck point building masonry as needed.

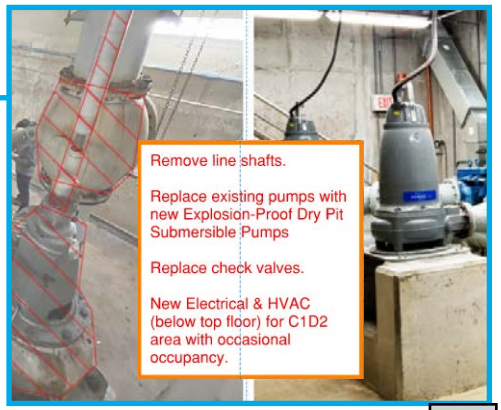
b. Mechanical:

~~i. Upgrade pump shaft guards *OR* Install submersible pumps for 1 & 5 (with greasing nozzles).~~ Replace all five (5) pumps with new Dry-Pit Submersible pumps with Non-Clogging Technology. Modify base, suction piping, and discharge piping in the immediate area of the pumps to accommodate installation

1. The new dry-pit submersible motors will be explosion proof rated to meet the Class 1 Division 2 safety rating in this area. The new pumps will be sized to increase the station's overall flow capacity, which will be documented in the Facility Plan submitted to the DNR.

City to

ii. ~~Replace header piping downstream of check valves.~~ Perform ultrasonic thickness testing on the header and discharge piping downstream of the check valves.



PROJECT APPROACH
CUSTOMIZED SCOPE ITEMS

~~1.~~ If the pipe is in near-new condition, aside from minor surface/spot repairs, replacement will be avoided.
1. Blast and recoat all mechanical piping.
2. Make in-place spot repairs to surface damage found on pipe exteriors.

~~ii.~~iii. Review pump impeller sizing; consider modifications to increase pumping capacity

iv. Assess valves and associated piping/hardware for rebuilding or replacement, as necessary. ~~Note that the check valve arm on one of the pumps has a fabricated bracket and should be replaced with the project.~~

~~iii.~~1. Replace check valves immediately downstream of pumps, other valves are not planned to be replaced unless they are found to have functional issues.

v. Replace duplex sump pump system & controls.

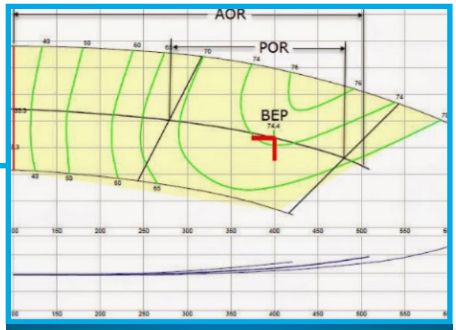
~~iv.~~1. New System shall be Class 1 Division 2, controls may be located in the upper floor if cost effective.

~~v. Replace wet well access manhole covers (2 ea) with 48" covers.~~

2. Larger covers are not planned in this proposal as the new Dry Pit Submersible Pumps with Non-Clogging Technology are expected to accomplish the non-clogging goals; the separate chopper pumps (and associated accessories) are not planned to be needed.

vi. Install new gauge sets on pumps, with isolation valves.

vii. Install ~~automated~~ manual wet well flushing valves and associated piping.

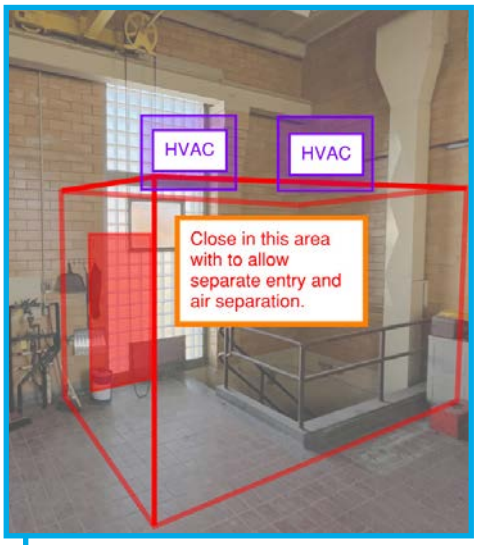


Optimize Pump/Impeller Selection - Increase Capacity and Non-Clogging

c. HVAC & Plumbing

i. Upgrade building ventilation to accommodate two (2) newly separated air-tight zones as follows~~, bringing up to current codes. A roof mounted unit capable of providing six air exchanges per hour is anticipated.~~:

1. Grade level zone (First Floor - Electrical Rm).
   a. Condition Grade level Electrical Rm with Rooftop Unit which would provide heating, cooling and economizer mode operation.
2. Lower level zone (Ventilate Drywell – including various floors) – The following options would be considered.
   a. Option 1: Ventilate at a 6 ACH rate continuously utilizing heat recovery unit and electric unit heaters in the lower levels. Drywell space with this option would be considered non-rated.
   b. Option 2: Maintain Class 1 Division 2 rating of the Drywell. No ventilation provided when Drywell is unoccupied. Upon occupation, provide 30 ACH purge for 10 minutes then ramp to 6 ACH while occupied. This approach would utilize Exhaust fans, makeup air units and VFD drives. Challenges include moving 30 ACH of air for 10 minutes which equates to 20,000 cfm.
   c. Option 3: Maintain Class 1 Division 2 rating of Drywell space. Ventilate continuously at 2 ACH when unoccupied. Upon occupation, engage ventilation rate of 6 ACH while occupied. This would be accomplished with a Heat recovery unit, electric unit heaters located in the drywell space and a gas fired makeup air unit. Advantage of this option is it reduced the required total airflow making it easier to place ductwork and equipment.
   d. **Note that Option 3 is expected to be the preferred option, and is planned for in the cost proposal, but all 3 options would be looked at and reviewed with the City.**
3. Drywell ventilation equipment placement: The separation structure (as referenced as the interior vestibule above) required to separate the Drywell from the Electrical Rm space would also be designed as an equipment mezzanine space which could allow placement of the HVAC equipment above the stair entrance. This would allow the HVAC equipment serving the Drywell to be located inside the Lift Station Structure.



PROJECT APPROACH
CUSTOMIZED SCOPE ITEMS

~~i.~~4.
- ~~ii. Replace or modify dry well exhaust fans & ductwork as needed.~~
- ~~iii.~~ii. Assess the condition and adequacy of wet well ventilation fans. Remove south vent and replace any fans as needed. Ductwork to remain and be reused if in good condition and if possible.
- ~~iv.~~iii. Depending on Emergency Generator replacement option, the existing generator louvers and dampers will be evaluated for replacement.~~Assess generator room dampers for cleaning/adjustment/lubrication needs.~~
- ~~v.~~iv. ~~Replace gas fired heaters and associated ductwork in the electrical room and lower unit, meeting current codes related to air exchanges and vent sizes.~~ Any lower level drywell heating equipment will be removed
- ~~vi.~~v. Replace the bathroom toilet and sink along with ventilation exhaust fan, other items to be discussed with the City during final scoping.

d. Electrical & Controls

i. Install new MCC w/integral VFDs. ~~Modify or replace MCC buckets and add VFD feeders in a new location within the building.~~ Note that two of the five existing pumps are equipped with VFDs; there is no plan to add VFDs to the other three pumps.
   - ~~i.~~1. Design such that pumps and other loads can be switched over during operation of the station. Design to allow for required seal-offs between levels.

ii. Design all necessary~~New~~ control and I/O wiring. ~~from recently replaced VFDs to the existing SCADA panel.~~

iii. Design new generator system, including demolition of existing. If new generator is located in the existing generator room, design temporary wiring requirements for connection of a large trailer mounted rental unit. If new generator goes outdoors, design seamless switchover provisions.~~Review generator loadings to determine whether input filters are required.~~

~~iv. Review generator engine, remote radiator and alternator for serviceability.~~

~~v.~~iv. Replace existing MAG meter and other control devices and related conduit/wiring located below grade to comply with Class 1 Div 2 requirements.

~~vi.~~v. Replace SLC500 PLCs with ~~CompactLogix~~ ControlLogix series. ControlLogix needed to meet BABA compliance requirements.

~~vii. Add I/O for new drives. Replace pressure transducers, utilizing the same locations.~~

~~viii.~~vi. Add new ~~Replace electric~~ wiring associated with new HVAC equipment, modify wiring to existing HVAC, as needed.

~~ix.~~vii. Replace 480V main circuit breaker & automatic transfer switch with new location to allow operation from two utility sources during construction.

~~x. Install Besel keypad module.~~

e. Process

~~i. Ascertain whether bypass pumping will be needed during construction. If it is, devise a plan including a traffic control plan for 7th St. to accommodate station flows as needed. Stage construction in a manner to minimize the cost and disruption of this effort.~~ We are proposing on a design that won't require large scale bypass pumping. The construction sequencing will be designed to keep four (4) of the five (5) pumps online to maintain the station's Firm Capacity.

City to

~~ii.~~i. Ascertain whether the wet well configuration currently allows for each side to be isolated for maintenance or repairs. If it doesn't, advise staff on a proposed solution, timeframe and budget number.

~~iii. Specify—and have installed as part of the construction project—a submersible chopper pump in both wet wells, along with associated mechanical, structural, electrical & controls impacts. Refer to a June 2023 memorandum by Foth concerning these options (attached).~~ See notes above regarding the new Dry Pit Submersible Pumps with Non-Clogging Technology accomplishing this goal.

PROJECT APPROACH
CUSTOMIZED SCOPE ITEMS

Note on River Overflow Site: Through the design, planning to re-establish the existing mechanical functions of the structure and detail cleaning requirements. If the City requests Foth to engage with the DNR or other entities regarding allowable use, permitting, public engagement, agreements, etc., additional scope and efforts will be added accordingly through an Addendum.

f. Miscellaneous

i. Restore impacted property grade, sidewalk & landscaping.

ii. Restore functionality of river bypass. Anticipated work includes the following: **1)** flushing debris from the bypass, **2)** installing a gate or check valve at the river to keep water from backing up, **3)** repair/replace bypass valves as necessary, and **4)** add sluice gate at valve pit.

2. **Bidding services.** Note that the City's front end-documents will be utilized.

3. **Construction Management services:** Consultant shall propose a scope that will minimize expenses while ensuring the successful completion of the project. For example, site inspection may be required at all times while the river bypass is being restored, but only needed to inspect HVAC equipment during start-up.

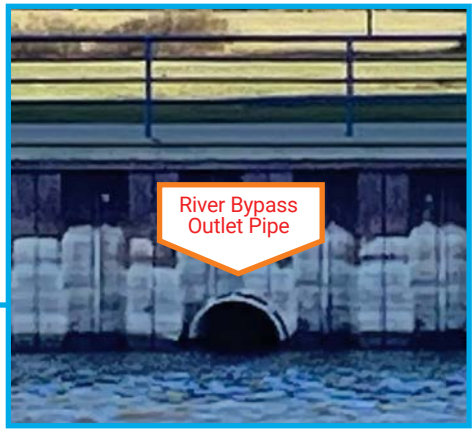
4. **Miscellaneous Considerations:**

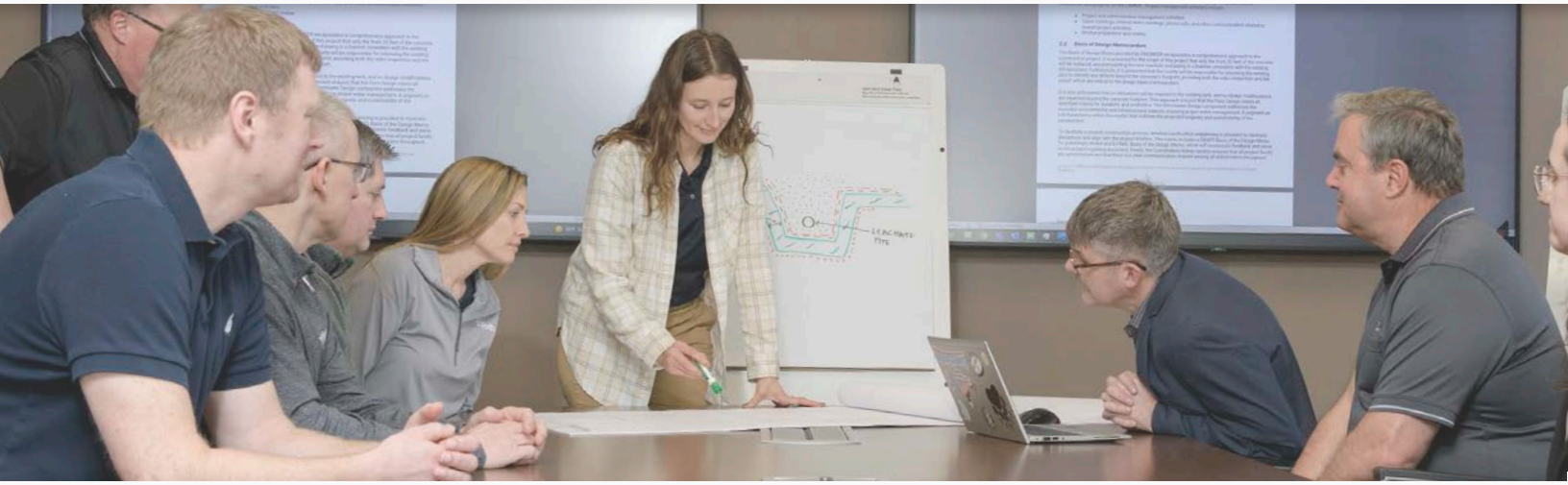
a. If significant energy savings may be expected as a result of this project, Consultant may be asked to provide calculations to WWTP staff to support Focus on Energy incentives.

b. If this project would benefit significantly by the use of smart technology (real-time data, predictive analysis, machine learning, etc.), Consultant should advise the WWTP accordingly during the proposal and/or design process.

c. An Intent to Apply (ITA) for an FY27 Clean Water Fund loan has been submitted. If CWF funding is obtained, this may impact Consultant's scope and schedule. It is not anticipated that the City will qualify for principle forgiveness.

~~c.~~i. Based on the City's population, BABA requirements are expected to be in effect with this loan program. Additional efforts to accommodate BABA requirements are included in proposal pricing.





CLIENT COLLABORATION COMMITMENT

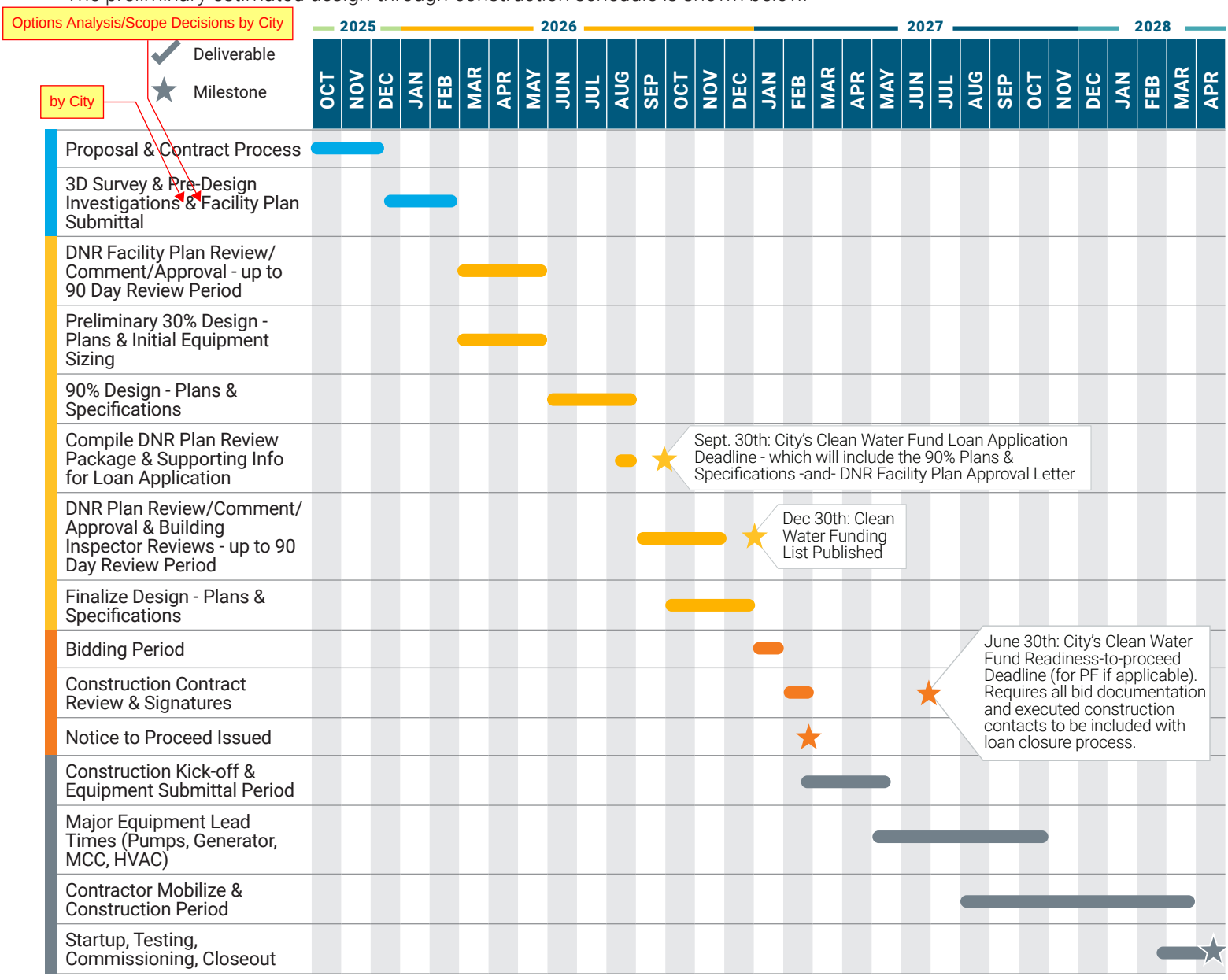
Throughout all phases of design and construction, we will actively engage with your team to ensure alignment and transparency. This includes regular progress reviews, evaluation of design options, schedule updates, and open discussions on key decisions. Our goal is to maintain clear communication and collaboration, ensuring the project meets your expectations and delivers long-term value.

PROJECT TIMELINE

KENTUCKY AVENUE PUMP STATION UPGRADE

Our design team is eager and energized to assist the City with this project that has been under discussion and scoping since 2020. Commitment remains strong to deliver an effective strategy for all design elements and project deliverables, ensuring progress continues efficiently through each phase.

The preliminary estimated design-through-construction schedule is shown below.

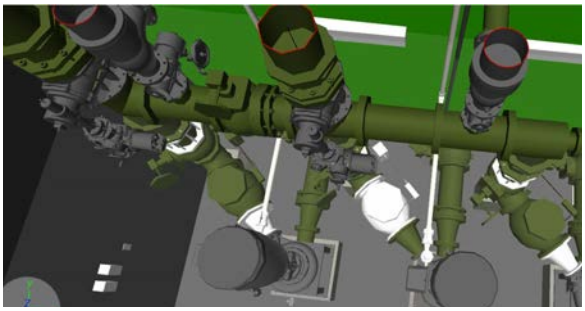


Note: Final Schedule will be based on detailed project scoping and City needs.

ESTIMATED PROJECT TIMEFRAME NOTES

During the construction phase, there will be substantial equipment submittal and delivery lead times. The BABA requirements tied to the Clean Water Fund Loan Program further slow down the process. It's important to note that the Contractor has very little control over the submittal and delivery periods for major equipment, which can significantly extend the overall project timeline. Our team will work closely with the City, State Reviewers, Contractor, and the selected Equipment Vendors throughout all stages of the project to ensure a timely completion and excellent schedule communication.

FEATURED PROJECT EXPERIENCE



L24 Rehabilitation and FM 7020 Replacement
Minnetrista, MN

In 2014, Metropolitan Council Environmental Services (MCES) sought to renovate the L24 Lift Station in order to increase its daily capacity and update its systems. In addition to the lift station, the 7020 forcemain also required replacement. Foth was tasked with design and construction administration for both project components.

Lift station renovations increased capacity from 2.0 MGD to 4.5 MGD. The work involved replacement of system piping, pumps, and valves; updates to the mechanical and electrical systems; addition of structural access and safety features; a new in-channel grinder; replacement of the odor control system; and site access improvements. The existing chemical feed system was temporarily relocated, and the wet well was modified with the addition of corrosion-resistant coating to the walls.

REFERENCE | John Hemming, Principal Engineer, MCES 651.602.4517

PROJECT HIGHLIGHTS

- Predesign 3D Survey
- Facility Plan
- 3D Pipe Modeling Design and Review
- Salvage Substructure
- Safety Improvements

Pike River Lift Station | Mount Pleasant, WI

To address the needs of the development and the growing village, overall infrastructure expansion was required. Foth was tasked with planning, design, and construction oversight for all wastewater conveyance facilities within the expansion.

We designed sanitary sewer facilities that included more than 12 miles of gravity sewer and forcemain and a new 40 MGD lift station. The lift station includes improved methods for scum and wet well cleaning and features that reduce turbulence, odor, and corrosion, along with the flexibility to expand to 75 MGD in the future. To optimize design, a 1:6 scale physical model was constructed and dye tested in conjunction with the Clemson Engineering Hydraulics lab.

REFERENCE | Anthony Beyer, Director of Public Works & Village Engineer 262.664.7849

PROJECT HIGHLIGHTS

- 40 MGD Lift Station, Expandable to 75 MGD
- Three Centrifugal Solids Handling Pumps, 600 HP
- Dual Self-Cleaning Trench Wet Wells
- Dual Electric Service Feeds and Standby Generator
- Predictive Pump Vibration Monitoring System
- MCCs, Controls, & SCADA

> **Their proactive approach has resulted in innovative design solutions, cost efficiencies, and eased management of contractors throughout the construction of this very expensive, complex lift station. Foth has been a resource we have come to trust and rely on to keep our projects moving forward.**
>
> Anthony J. Beyer, PE | Director of Public Works | Village of Mt. Pleasant, WI

L-34 Lift Station | Coon Rapids, MN

Following a condition assessment, we provided rehabilitation design which included replacement of all process piping, new wastewater pumps, and reconfiguration of the influent channel. The sewer junction structure and influent pipe into the wet well were also replaced, and a sewage grinder, bypass channel, and gates were added. Ventilation equipment and ductwork within the lift station were replaced and odor control facilities were replaced. Finally, the concrete in the wet well was rehabilitated and a hydrogen sulfide-resistant coating added.

PROJECT HIGHLIGHTS

- Pump Selection and Replacement
- Suction and Discharge Piping Reconfiguration
- Process Piping and Valves
- Sewage Grinder
- MCCs, Controls, & SCADA

REFERENCE | Dan Chouinard, Principal Engineer, MCES 651.602.4564

Elk Vale Lift Station | Rapid Valley, SD

Originally constructed in 2012, the Elk Vale Lift Station consisted of three pumps, with room for two additional. Due to high operating head, the pumps experienced excessive wear. Flows continued to rise from area growth, and planned decommissioning of a nearby lift station was set to add additional flow. Foth was tasked with designing pump improvements, including the addition of a new pump and replacement of existing pumps. Pump selection and procurement was prioritized due to existing units' condition, along with replacement of the emergency generator with one capable of operating all four pumps. Transient analysis was performed to evaluate station operation and resiliency.

Additionally, the forcemain discharge structure had extremely high hydrogen sulfide concentrations. Through installation of a hydrogen sulfide sampling system, we determined the source of the issue was a partially open valve within the lift station. Working with the oxygen delivery system manufacturer, we also developed enhancements to the existing system that increased the oxygen delivery rate to align with future flow increase.

REFERENCE | Brandon Quiett, Project Engineer 605.394.4154

PROJECT HIGHLIGHTS

- Pump Selection and Replacement
- Suction and Discharge Piping Reconfiguration
- Generator Replacement
- Transient Analysis

Central Lift Station and Attenuation Basin Modifications Caledonia, WI

Foth is currently working with the Caledonia utility district to design modifications to an existing lift station and force main. The modifications include rehabilitation of the lift station electrical system and wet well as well as improvements to the force main such as the addition of a pigging station and isolation vault. In order to control peak flows at the station, a new attenuation basin and pumping station are being added. The attenuation base will store up to 3.6 MG of wastewater and is supplied by two 15,000 gpm pumps. Capacity at the existing lift station is limited to 13 MGD by the downstream sewer authority. With the addition of a safety site in the future, the full facility will contain design storms up to 45 MGD.

REFERENCE | Anthony Bunkelman, Public Services Director 262.835.4451

PUMP STATION EXPERIENCE

ADDITIONAL PROJECTS (PARTIAL LIST)

Matt and Dale have a wealth of experience with pump stations across Wisconsin, Minnesota, South Dakota, and Iowa. With a variety of types, pump number, and styles, we believe the following table gives a well-rounded picture of our capabilities and experience with pump stations.

Foth Project	# of Pumps	Submersible or Dry-Pit	Walk-In Building	Standby Generator	Capacity Range
Quarry Park Pump Station, Racine County, WI	2	Submersible	No	No	Less Than 1 MGD
KR Pump Station, Village of Mt. Pleasant, WI	4	Dry-Pit	Yes	Yes	Between 1 & 5 MGD
L-80 Pump Station, MCES, MN	3	Submersible	No	On-Site Portable	Between 1 & 5 MGD
Dominican Pump Station, Caledonia, WI	2	Dry-Pit	No	Yes	Less Than 1 MGD
4 Mile Road Pump Station, Caledonia, WI	2	Submersible	Yes	Yes	Between 1 & 5 MGD
Lighthouse Drive Pump Station, Caledonia, WI	2	Dry-Pit	Yes	Yes	Less Than 1 MGD
Caddy Vista Pump Station, Caledonia, WI	3	Dry-Pit	No (Below Grade Pump Room)	Yes	Between 1 & 5 MGD
Little Beaver Creek Segment B Pump Station, Johnston, IA	2	Submersible	Yes	Yes	Between 1 & 5 MGD
Little Beaver Creek Segment C Pump Station, Johnston, IA	2	Submersible	Yes	Yes	Between 1 & 5 MGD
Mackubin & Childs Road Pump Station Rehab, St. Paul, MN	2	Submersible	No	No	Less Than 1 MGD
Wastewater Treatment Plan Solids Handling Upgrades, Georgia Pacific, WI	2	Dry-Pit	Yes	No	Between 1 & 5 MGD
Hoods Creek Attenuation Basin, Caledonia, WI	3	Dry-Pit	Yes	Yes	Over 5 MGD
Landfill Leachate Loading Station, Brown County, WI	2	Dry-Pit	Yes	No	Less Than 1 MGD
Corcoran Pump Station Improvements, MCES, MN	2	Submersible	No	No (Portable Connection)	Between 1 & 5 MGD
WWTP Main Lift Station Upgrade, Bay City, WI	2	Submersible	Yes	Yes	Less Than 1 MGD
WWTP Main Lift Station Upgrade, Stanley, WI	3	Submersible	Yes	Yes	Between 1 & 5 MGD
Stormwater Pumping Station, Waukee, IA	2	Submersible	No	No	Between 1 & 5 MGD
CTH K&V Pump Station Improvements, Caledonia, WI	3	Dry-Pit	Yes	Yes	Over 5 MGD
WWTP Main Lift Station Upgrade, Weyauwega, WI	3	Dry-Pit	Yes	Yes	Between 1 & 5 MGD
WWTP Main Lift Station Upgrade, Elmwood, WI	3	Submersible	Yes	Yes	Less Than 1 MGD
WWTP Main Lift Station Upgrade, Pepin, WI	3	Dry-Pit	Yes	Yes	Less Than 1 MGD
WWTP Main Lift Station Upgrade, Red Wing, MN	3	Dry-Pit	Yes	Yes	Between 1 & 5 MGD
WWTP Main Lift Station Upgrade, Belmont, WI	3	Submersible	Yes	Yes	Less Than 1 MGD
WWTP Main Lift Station Upgrade, Cadott, WI	4	Dry-Pit	Yes	Yes	Less Than 1 MGD
WWTP Main Lift Station Upgrade, Ellsworth, WI	2	Submersible	No	Yes	Between 1 & 5 MGD
WWTP Main Lift Station Upgrade, Spring Valley, WI	3	Submersible	Yes	Yes	Less Than 1 MGD

CLIENT REFERENCES

Our commitment to the City is to deliver **ON TIME**, **ON BUDGET**, at the **HIGHEST LEVEL OF QUALITY**—anticipating **YOUR** needs before being asked.

We pride ourselves on our collaborative approach with client partners. Striving to understand our clients' needs and expectations, we use our knowledge and experience to achieve those shared goals.

In the end, the passion and hard work put into every project is matched by the dedication and care poured into our relationships. A personalized, client-centered approach is what grows and maintains our partnerships.

Nate Steffen

Water Superintendent
Elkhorn Water Utility

262.475.9215
NSteffen@CityofElkhorn.gov

Paul Haugen

Water Superintendent
Germantown Water Utility

262.253.8254
PHaugen@GermantownWI.gov

Anthony Bunkelman

Public Services Director
Village of Caledonia, WI

262.835.4451
ABunkelman@Caledonia-WI.gov

ABOUT FOTH
ORGANIZATIONAL STRUCTURE

Founded in 1938 in Green Bay, Wisconsin, Foth offers a tradition of personalized, client-centered service and smart solutions to a variety of governmental, industrial, and commercial clients. Our more than 750 employee members deliver technical excellence in three main areas: Infrastructure, Environment, and Production Solutions.

INFRASTRUCTURE SERVICE LINES

WATER | CONSTRUCTION | GEOSPATIAL | PLANNING | TRANSPORTATION | AVIATION

3 Wisconsin-Based Offices with 28+ additional Nationwide

Delivering results from a foundation of personalized service and viewing challenges through the unique lens of each project and program.

MADISON
OFFICE

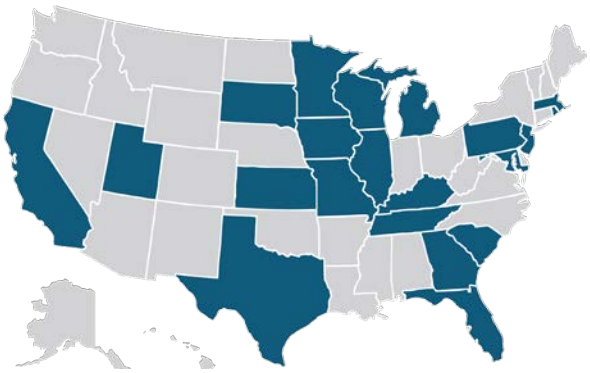
DE PERE, WI
HEADQUARTERS

CITY
OF SHEBOYGAN

FRANKLIN
OFFICE

Clients attest to our ability to function as an extension of your staff—a point of pride for Foth. Our engineers, technicians, and specialists have expertise in all areas of municipal infrastructure projects. Integrating our services into your system is fundamental, and understanding the City of Sheboygan's needs is key.

Foth has a long history of municipal work throughout Wisconsin, and members are committed to building our relationship with the City. Should additional expertise be required for any City projects, our network of staff can quickly assist.



STRATEGICALLY LOCATED TO SOLVE OUR CLIENTS' TOUGHEST CHALLENGES.

AGENDA ITEM MEMORANDUM

DATE: 1/22/2026

TO: Public Works Committee

FROM: Jordan Skiff, Wastewater Superintendent

SUBJECT: Resolution 157-25-26 – Approving Engineering Contract—Old Digester Area Demolition Design (Donohue Associates)

ISSUE

Should the Public Works Committee recommend approval of a proposed agreement and budget amendment for a WWTP design contract?

STAFF RECOMMENDATION

Staff recommends approval.

BACKGROUND/DISCUSSION

At the February 2nd City Council meeting, I am requesting approval of an engineering design contract with Donohue Associates for the demolition of the 1930s digester area at the wastewater plant. Donohue's contract is based on a proposal they provided in response to an RFP (request for proposals) process.

This area was part of the 1930's vintage WWTP, and presents structural and environmental concerns. Two of the four digesters were used to store high-strength waste in the 2000's until 2017, leading to degradation of the concrete tank bottoms and leaving large quantities of organic matter that had congealed.

The only current use of this area are two water-bearing lines and some electrical conduit that still pass through it. WWTP staff proposes to relocate these active lines while the demolition design is being done to minimize contractor costs. Donohue's design will result in the current structures—and any residual organic matter—being demolished and/or removed in a safe, cost-effective and environmentally-responsible manner.

The design cost is higher than budgeted, so a budget amendment will be requested as part of City Council approval.

IF APPROVED, NEXT STEPS

This contract will be entered with Donohue, who will complete plans, specifications and bidding documents for the demolition to be bid out. A 2027 or 2028 demolition project is anticipated.

DEPARTMENT OF PUBLIC WORKS

2026 NEW JERSEY AVE.
SHEBOYGAN, WI
53081

920/459-3440
sheboyganwi.gov

CITY OF SHEBOYGAN
RESOLUTION 157-25-26

BY ALDERPERSONS DEKKER AND RUST.

JANUARY 26, 2026.

A RESOLUTION authorizing the appropriate City officials to enter into a contract with Donohue & Associates, Inc. for engineering design services to demolish a 1930's digester area at the wastewater treatment plant (WWTP).

WHEREAS, a former sludge digester area within the Wastewater Treatment Plan, consisting of four concrete structures and large common room with utilities, requires substantial improvements due to its historical uses and age; and

WHEREAS, given that this area is not fit for reuse and is no longer necessary for WWTP operations, demolition is appropriate; and

WHEREAS, the demolition process must be carefully designed and planned to ensure no impact to WWTP operations and to ensure that any residual materials are removed in a safe and environmentally-sound manner; and

WHEREAS, staff has reviewed proposals submitted in response to the City's request and has determined that Donohue & Associates, Inc., is most qualified to assist with the design of this demolition project at a proposed price of $128,625; and

WHEREAS, the digester demolition plan was previously budgeted for $50,000 in the 2025 capital improvements program; and

WHEREAS, staff project the current 2026 capital improvements program will have sufficient funding due to other project changes to cover the full cost associated with this project.

NOW, THEREFORE, BE IT RESOLVED: That the Mayor and City Clerk are hereby authorized to enter into the attached agreement with Donohue & Associates, Inc. for the engineering design of the project.

BE IT FURTHER RESOLVED: That the Finance Director is authorized to draw funds from Acct. No. 630361-631200 (Wastewater Fund—Wastewater—Building Improvements), upon the agreement being fully executed by all parties, to pay for the design pursuant to the agreement.

PASSED AND ADOPTED BY THE CITY OF SHEBOYGAN COMMON COUNCIL _____.

Presiding Officer	Attest
_____	_____
Ryan Sorenson, Mayor, City of Sheboygan	Meredith DeBruin, City Clerk, City of Sheboygan

DONOHUE

PROFESSIONAL SERVICES AGREEMENT

Old Digester Area Demolition Design (Project)

This Agreement is by and between:

City of Sheboygan (Owner)
828 Center Avenue
Sheboygan, WI 53081

and

Donohue & Associates, Inc. (Donohue)
Donohue Address
3311 Weeden Creek Road
Sheboygan, WI 53081

Who agree as follows:

Owner hereby engages Donohue to perform the Services set forth in Part I for the compensation set forth in Part III. Donohue will be authorized to commence the Services upon execution and receipt of this Agreement from Owner. Owner and Donohue agree that this signature page, together with Parts I through IV attached, constitute the entire agreement for this Project.

APPROVED FOR OWNER

By: _____

Printed Name: _____

Title: _____

Date: _____

APPROVED FOR DONOHUE

By: _____

Printed Name: Michael Gerbitz

Title: Senior Vice President

Date: _____

PART I
PROJECT DESCRIPTION/SCOPE OF SERVICES/TIMING

A. PROJECT DESCRIPTION

The project includes engineering services for the planned demolition of an obsolete digester area at the Owner's WWTP. The project will focus on the safe removal of four inactive digester structures, an enclosed concrete access room, and unused incinerator-related equipment, while maintaining uninterrupted operation of adjacent treatment processes. Active primary sludge piping within the area will require evaluation and rerouting to support demolition activities.

Services include site evaluation, identification of structural and environmental risks, and development of a conceptual demolition approach. Donohue will define environmental controls for managing residual organic materials and asbestos-containing components, and prepare conceptual drawings, cost estimates, and construction bidding documents suitable for public bidding.

B. SCOPE OF SERVICES

Services to be provided by Donohue for this Project under this Agreement are as follows:

1. Demolition Conceptual Design
    a. Prepare a request for information necessary to understand the existing facilities and conditions.
    b. Discuss demolition objectives, preferences, and curiosities; and brainstorm demolition strategies, including a workshop.
    c. Develop and submit Design Basis Memorandum to document limits of demolition, below-grade tunnel modification approach, and utility relocations and removals.
    d. Develop and submit Conceptual Drawings and a capital cost opinion.

2. Decision Making
    a. Conduct a workshop to review and refine the preceding deliverables to accommodate Owner direction, objectives, and preferences, and define the scope of improvements to be incorporated in the Bidding Documents.

3. Bidding Documents
    a. Develop and submit 60%-complete Bidding Documents with an updated cost opinion, including a document review workshop.
    b. Develop and submit 90%-complete Bidding Documents with an updated cost opinion, including a document review workshop.
    c. Develop and submit final Bidding Documents with an updated cost opinion.

C. PROJECT TIMING

1. Donohue shall be authorized to commence the Services set forth herein upon execution of this Agreement and submit 90%-complete Bidding Documents to the Owner for the Work to demolish the old digester area by July 1, 2026.

2. Donohue's Services under this Agreement will be considered complete when Donohue has delivered to Owner the final Bidding Documents.

PART II
OWNER RESPONSIBILITIES

A. In addition to other responsibilities of Owner set forth in this Agreement, Owner shall:

1. Identify a person authorized to act as the Owner's representative to respond to questions and make decisions on behalf of Owner, accept completed documents, approve payments to Donohue, and serve as liaison with Donohue as necessary for Donohue to complete its Services.

2. Furnish to Donohue copies of existing documents and data pertinent to Donohue's Scope of Services, including but not limited to and where applicable: design and record drawings for existing facilities; property descriptions, land use restrictions, surveys, geotechnical and environmental studies, or assessments.

3. Owner shall be responsible for all requirements and instructions that it furnishes to Donohue pursuant to this Agreement, and for the accuracy and completeness of all reports, data, programs, and other information furnished by Owner to Donohue pursuant to this Agreement. Donohue may use and rely upon such requirements, instructions, reports, data, programs, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations provided by Owner applicable to the furnished items.
   Owner acknowledges and agrees that Donohue may rely, without independent verification, on the accuracy and completeness of data, specifications, certifications, performance claims, and other information or documentation furnished by, or published by, equipment and material manufacturers, suppliers, or vendors, provided such reliance is consistent with the applicable standard of care. Donohue shall not be responsible for errors, omissions, or inaccuracies in such third-party information unless Donohue had actual knowledge of such error, omission, or inaccuracy, or such reliance would not be reasonable under the circumstances. This provision applies to information provided directly to Donohue as well as information incorporated into product submittals, shop drawings, and O&M manuals.

4. Provide to Donohue existing information regarding the existence and locations of utilities and underground facilities.

5. Provide Donohue safe access to premises necessary for Donohue to provide the Services.

6. Inform Donohue whenever Owner observes or becomes aware of a Hazardous Environmental Conditions, as defined in Part IV.3. of this Agreement, that may affect Donohue's Scope of Services or time for performance.

PART III
COMPENSATION, BILLING AND PAYMENT

A. Compensation for the work as defined in the Scope of Services (Part I) of this Agreement shall be a lump sum of $128,625.

B. Donohue will bill Owner monthly, with net payment due in 30 days. The invoice will contain a calculation of the amount of lump sum due based on a percentage of lump sum Services completed during the billing period. Compensation for time and materials Services will be in accordance with Donohue's standard chargeout rates in effect at the time the Services are performed. Routine expenses will be billed at cost and subconsultant costs will include a 10% markup

C. Donohue will notify Owner if Project scope changes require modifications to the above-stated contract value. Services relative to scope changes will not be initiated without written authorization from Owner.

PART IV
CITY OF SHEBOYGAN STANDARD CONTRACT TERMS
GENERAL SERVICE AGREEMENT
(NON-CONSTRUCTION)

1. STANDARD OF CARE. Contracting Party agrees that the performance of services pursuant to the terms and conditions of this Agreement shall be performed in a manner consistent with the degree and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances providing like services. Upon notice to Contracting Party, Contracting Party will, without additional compensation, correct or replace any and all Services not meeting the Standard of Care. Contracting Party agrees to follow all applicable federal, state, and local laws, regulations, and ordinances, and all provisions of this Agreement.

2. FULLY QUALIFIED. Contracting Party represents that all personnel engaged in the performance of the services set forth in this Agreement shall be fully qualified and shall be authorized or permitted under state and local law to perform the services.

3. SCOPE OF WORK. Contracting Party agrees to provide all labor, materials, equipment, transportation, appliances, and services necessary to complete all work identified or reasonably inferred from the Scope of Work document attached and/or incorporated into the Agreement. Contracting Party shall be responsible for obtaining all applicable permits and paying applicable permit fees prior to commencement. The scope of work set forth in this Agreement is based on facts known at the time of Agreement execution. As the project progresses, if facts are discovered that suggest a change of scope is warranted, the parties shall provide a written amendment to the Agreement before such change is recognized.

4. MEANS AND METHODS. Contracting Party shall be solely responsible for all means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under this Agreement. Contracting Party must employ, as much as possible, such methods and means in carrying out the work as will minimize disruption to City operations. Unless specifically included as a service to be provided under this Agreement, the City specifically disclaims any authority or responsibility for general job site safety, or the safety of persons or property.

5. APPROPRIATION OF FUNDS. Notwithstanding any other provision of the Agreement and pursuant to Wis. Stat. § 65.06(1), if funds for the continued fulfillment of this Agreement by the City are at any time not forthcoming or are insufficient, through failure of any entity, including the City itself, to appropriate funds or otherwise, then the City shall have the right to terminate this Agreement without penalty. The City agrees that it will make its best effort to obtain sufficient funds for the Agreement to meet its obligations hereunder in full.

6. SCHEDULE OF PAYMENTS. The City shall remit payment to Contractor within not less than thirty (30) days of itemized invoice receipt. Such itemization shall include labor costs, the Contracting Party's direct expenses, including subcontractor costs, the hours worked by Contracting Party's staff and the amount of work completed as a percentage of the work to be performed. The City shall not make payment for any unauthorized work or expenses. The City may withhold payment, in whole or in part, to the extent necessary to protect itself from a loss on account of defective work; evidence indicating the probable filing of claims by other parties against Contract that may adversely affect the City; failure of Contractor to make payments due to subcontractors, material supplies, or employees; damage to the City or a third party from acts arising out of this Contract. The submission of any request for payment shall be deemed a waiver and release by Contractor of all liens and claims with respect to the work and period to which such payment request pertains except as specifically reserved and noted on such request.

   Partial payment made under this Agreement is not evidence of the proper performance by Contractor either in whole or in part, and no payment made by the City shall be construed to be an acceptance of defective or improper work.

7. TAXES, SOCIAL SECURITY, INSURANCE, AND GOVERNMENT REPORTING. Personal income tax payments, social security contributions, insurance, and all other governmental reporting and contributions required as a consequence of the Contracting Party receiving payment under this Agreement shall be the Contracting Party's sole responsibility. The City is a tax-exempt entity and as such, shall not be required to pay sales tax by execution of a contract.

8. INSURANCE. Contracting Party shall, at its sole expense, obtain and maintain in effect at all times during this Agreement, insurance coverage, as applicable, consistent with that set forth in Exhibit A.

9. INDEMNIFICATION & HOLD HARMLESS. To the extent authorized by law, Contractor hereby agrees to indemnify ~~, defend,~~ and hold harmless the City of Sheboygan, its elected and appointed officials, officers, employees, agents, representatives, and

authorized volunteers from and against any and all suits, actions, legal or administrative proceedings, claims, demands, da liabilities, interest, ~~defense costs,~~ reasonable attorneys' fees, and~~,~~ reasonable costs~~,~~ and expenses ~~of whatsoever kind or nature in any manner directly or indirectly caused, occasioned, or contributed to in whole or in part or claimed or alleged to be caused, occasioned, or contributed to in whole or in part, by reason of any~~ to the extent caused by any negligent act, omission, or fault~~,~~ ~~or negligence,~~ whether active or passive, of Contractor or its agents or anyone acting under its direction or control or on its behalf ~~arising out of, or in connection with, or~~ relating to this Agreement. Contractor's aforesaid indemnity and hold harmless agreement shall not be applicable to any liability caused by the willful misconduct of the City of Sheboygan, its elected and appointed officials, officers, employees, agents, representatives, or authorized volunteers. Nothing in this Agreement shall be construed as the City of Sheboygan waiving its statutory limitation and/or immunities as set forth in the applicable Wisconsin Statutes or other applicable law. This indemnity provision shall survive the termination or expiration of this Agreement. To the fullest extent permitted by law, the City of Sheboygan and Contracting Party waive against each other, and the other's employees, elected and appointed officials, officers, agents, representatives, authorized volunteers, and design professionals, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Agreement.

10. TERMINATION FOR CAUSE. If, through any cause, the Contracting Party shall fail to fulfill in a timely and proper manner its obligations under this Agreement, or if the Contracting Party shall violate any of the covenants, agreements, or stipulations of this Agreement, the City of Sheboygan shall thereupon have the right to terminate this Agreement by giving written notice to the Contracting Party of such termination and specifying the effective date, at least ten (10) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, reports or other material related to the services performed by the Contracting Party under this Agreement for which compensation has been made or may be agreed to be made shall, at the option of the City, become the property of the City. Notwithstanding the foregoing, the Contracting Party shall not be relieved of liability to the City for direct damages sustained by the City by virtue of this Agreement by the Contracting Party, and the City may withhold any payments to the Contracting Party for the purpose of setoff until such time as the exact amount of damages due to the City from the Contracting Party is determined.

11. TERMINATION FOR CONVENIENCE. The City may terminate this Agreement at any time and for any reason by giving written notice to the Contracting Party of such termination and specifying the effective date, at least ten (10) days before the effective date of such termination. If this Agreement is terminated by the City pursuant to this provision, Contracting Party will be paid an amount which bears the same ratio to the total compensation as the services actually and satisfactorily performed bear to the total services of the Contracting Party covered by this Agreement, less payments for such services as were previously made. The value of the services rendered and delivered by Contracting Party will be determined by the City.

12. USE OF CITY PROPERTY. Any property belonging to the City being provided for use by the Contracting Party shall be used in a responsible manner and only for the purposes provided in this Agreement. No changes, alterations, or additions shall be made to the property unless otherwise authorized by this Agreement.

13. INDEPENDENT CONTRACTOR. The parties, their employees, agents, volunteers, and representative shall be deemed independent contractors of each other and shall in no way be deemed as a result of this Agreement to be employees of the other. The parties, their employees, agents, volunteers, and representatives are not entitled to any of the benefits that the other provides for its employees. The parties shall not be considered joint agents, joint ventures, or partners.

14. JURY TRIAL WAIVER. The parties hereby waive their respective rights to a jury trial on any claim or cause of action based upon or arising from or otherwise related to this Agreement. This waiver of right to trial by jury is given knowingly and voluntarily by the parties and is intended to encompass individually each instance and each issue as to which the right to a trial by jury would otherwise accrue. Each party is hereby authorized to file a copy of this section in any proceeding as conclusive evidence of this waiver by the other party.

15. SEVERABILITY. The provisions of this Agreement are severable. If any provision or part of this Agreement or the application thereof to any person or circumstance shall be held by a court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Agreement and the application of such provision or part thereof to other persons or circumstances shall not be affected thereby.

16. ASSIGNMENT, SUBLET, AND TRANSFER. Contracting Party shall not assign, sublet, or transfer its interests or obligations under the provisions of this Agreement without the prior written consent of the City. This Agreement shall be binding on the heirs, successors, and assigns of each party hereto. Contracting Party shall provide not less than forty-five (45) days advance written notice of any intended assignment, sublet or transfer.

17. NO WAIVER. The failure of any party to insist, in any one or more instance, upon performance of any of the terms, covenants, conditions of this Agreement shall not be construed as a waiver, or relinquishment of the future performance of any such term, covenant, or condition by any other party hereto but the obligation of such other party with respect to such future performance shall continue in full force and effect.

18. GOOD STANDING. Contracting Party affirms that it is a company duly formed and validly existing and in good standing under the laws of the State of Wisconsin and has the power and all necessary licenses, permits and franchises to own its assets and properties and to carry on its business. Contracting Party is duly licensed or qualified to do business and is in good standing in the State of Wisconsin and in all other jurisdictions in which failure to do so would have a material adverse effect on its business or financial condition.

19. CONFLICTS OF INTEREST. Contracting Party covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. Contracting Party further covenants that in the performance of this Agreement no person having any conflicting interest shall be employed. Any interest on the part of Contracting Party or its employee must be disclosed to the City.

20. IMPLEMENTATION SCHEDULE AND TIME OF THE ESSENCE. Subject to the Standard of Care, ~~A~~any and all phases and schedules which are the subject of approvals, or as set forth herein, shall be governed by the principle that time is of the essence, and modification or deviation from such schedules shall occur only upon approval of the City. The City Administrator, or in their absence, the Council President, shall have the ability to postpone any deadline listed herein, up to a maximum of ninety (90) days. Should schedule delays occur beyond the Contracting Party's control, the project schedule shall be extended accordingly.

21. ACCESS TO RECORDS & OPEN RECORDS LAWS. Contracting Party, at its sole expense, shall maintain books, records, documents and other evidence pertinent to this Agreement in accordance with accepted applicable professional practices. The City, or any of its duly authorized representatives, shall have access, at no cost to the City, to such books, records, documents, papers or any records, including electronic records, of Contracting Party which are pertinent to this Agreement, for the purpose of making audits, examinations, excerpts and transcriptions. Contracting Party understands that the City is bound by the Wisconsin Public Records Law and, as such, this Agreement is subject to that law. Contractor acknowledges that it is obligated to assist the City in retaining and producing records that are subject to Wisconsin Public Records Law, and that the failure to do so shall constitute a material breach of the contract, and that Contractor must defend and hold the City harmless from liability under that law. Except as otherwise authorized, those records shall be maintained for a period of seven (7) years after receipt of Final Payment under the Agreement.

22. COUNTERPARTS. This Agreement may be executed in one or more counterparts, all of which shall be considered but one and the same agreements and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party.

23. SURVIVAL. All express representations, indemnifications and limitations of liability included in this Agreement will survive its completion or termination for any reason.

EXHIBIT A General Insurance Requirements

CITY OF SHEBOYGAN INSURANCE REQUIREMENTS
GENERAL SERVICE AGREEMENT
(NON-CONSTRUCTION)

The Service Provider shall not commence work until proof of insurance required has been provided in writing to the applicable department before the contract or purchase order is considered for approval by the City of Sheboygan.

It is hereby agreed and understood that the insurance required by the City of Sheboygan is primary and non-contributing coverage and that any insurance or self-insurance maintained by the City of Sheboygan, its officers, council members, agents, employees or authorized volunteers will not contribute to coverage of any loss. All insurance shall be in full force prior to commencing work and remain in force until the entire job is completed and the length of time that is specified, if any, in the contract or listed below whichever is longer.

1. COMMERCIAL GENERAL LIABILITY INSURANCE

Commercial General Liability coverage at least as broad as Insurance Services Office Commercial General Liability Form CG 00 01, including coverage for Products Liability, Completed Operations, Contractual Liability, and Explosion, Collapse, Underground coverage with the following minimum limits and coverage:

Each Occurrence limit	$1,000,000
Personal and Advertising Injury limit	$1,000,000
General aggregate limit (other than Products–Completed Operations) **per project**	$2,000,000
Products–Completed Operations aggregate	$2,000,000
Fire Damage limit — any one fire	$50,000
Medical Expense limit — any one person	$5,000

2. BUSINESS AUTOMOBILE COVERAGE. Automobile Liability coverage at least as broad as Insurance Services Office Business Automobile Form, with minimum limits of $1,000,000 combined single limit per accident for Bodily Injury and Property Damage, provided on a Symbol #1 – "Any Auto" basis.

3. WORKERS COMPENSATION AND EMPLOYERS LIABILITY – as required by Wisconsin State Statute or any Workers Compensation Statutes of a different state. Also, if applicable to the work coverage must include Maritime (Jones Act) or Longshore & Harbor Worker's Compensation Act coverage.

Must carry coverage for Statutory Workers Compensation and an Employers Liability with limits of:

$100,000 Each Accident
$500,000 Disease Policy Limit
$100,000 Disease – Each Employee

Employer's Liability limits must be sufficient to meet umbrella liability insurance requirements

4. UMBRELLA LIABILITY providing coverage at least as broad as all the underlying liability policies with a minimum limit of $2,000,000 each occurrence and $2,000,000 aggregate, and a maximum self-insured retention of $25,000. The umbrella must be primary and non-contributory to any insurance or self-insurance carried by City of Sheboygan.

5. **AIRCRAFT LIABILITY**, if the project work includes the use of, or operation of any aircraft or helicopter, then Aircraft l insurance must be in force with a limit of $5,000,000 per occurrence for Bodily Injury and Property Damage including Passenger liability and including liability for any slung cargo.

6. **UNMANNED AIRCRAFT LIABILITY** – if the project work includes the use of, or operation of any unmanned aircraft then unmanned aircraft liability insurance must be carried with a limit of $1,000,000 per occurrence for bodily injury liability, property damage liability and invasion of privacy liability.

7. **WATERCRAFT LIABILITY** – if the project work includes the use or operation of any watercraft, watercraft liability insurance must be carried with a limit of $1,000,000 per occurrence for bodily injury liability and property damage liability.

8. **SERVICE PROVIDER'S EQUIPMENT OR PROPERTY** – The Service Provider is responsible for loss and coverage for these exposures. The City of Sheboygan will not assume responsibility for loss, including loss of use, for damage to property, materials, tools, equipment, and items of a similar nature which are being either used in the work being performed by the Service Provider or are to be built, installed, or erected by the Service Provider. This includes but not limited to property owned, leased, rented, borrowed, or otherwise in the care, custody or control of the Service Provider.

9. **PRODUCTS - COMPLETED OPERATIONS LIABILITY** - Products – Completed Operations coverage must be carried for a minimum of three years after acceptance of completed work

10. LIQUOR LIABILITY – If the services rendered involve providing alcohol for consumption by others, liquor liability insurance must be carried with a limit of $1,000,000 per occurrence.

INSURANCE REQUIREMENTS FOR ALL SUBSERVICE PROVIDERS

All subservice providers shall be required to obtain the above coverages as applicable. This insurance shall be as broad and with the same limits and coverages (including waivers of subrogation) as those required per Contractor requirements.

APPLICABLE REQUIREMENTS AND PROVISIONS FOR LIABILITY INSURANCE OF SERVICE PROVIDER & SUBSERVICE PROVIDERS

A. Primary and Non-contributory requirement – all insurance must be primary and non-contributory to any insurance or self-insurance carried by the City of Sheboygan.

B. Acceptability of Insurers – Insurance is to be placed with insurers who have an *A.M. Best* rating of no less than A- and a Financial Size Category of no less than Class VII, and who are authorized as an admitted insurance company in the state of Wisconsin.

C. Additional Insured Requirements – The following must be named as additional insureds on all Liability Policies for liability arising out of service work- the City of Sheboygan, and its officers, council members, agents, employees and authorized volunteers. On the Commercial General Liability Policy, the additional insured coverage must be as broad as ISO form CG 20 26 07 04 and also include Products – Completed Operations additional insured coverage as broad as ISO form CG 20 37 07 04 or their equivalents for a minimum of 3 years after acceptance of work. This does not apply to Workers Compensation Policies and Professional Liability Policies.

D. Waivers of Subrogation - All contractor and subcontractor liability, workers compensation, and property policies, as required herein, must be endorsed with a waiver of subrogation in favor of the City of Sheboygan, its officers, council members, agents, employees, and authorized volunteers.

E. Deductibles and Self-Insured Retentions – Any deductible or self-insured retention in the contractor's policy must be declared to the City of Sheboygan and satisfied by the contractor.

F. Evidence of Insurance – Prior to execution of the agreement, the Service Provider shall file with the City of Sheboygan a certificate of insurance (Acord Form or equivalent for all coverages) signed by the insurer's representative evidencing the coverage required by this agreement. In addition, form CG 20 10 07 04 for ongoing work exposure and form CG 20 37 07 04 for products-completed operations exposure must also be provided or its equivalent on the Commercial General Liability coverage.

G. Limits and Coverage- The insurance requirements under this Agreement shall be the greater of the minimum limits and coverage specified herein, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits. No representation is made that the minimum insurance requirements stated hereinabove are sufficient to cover the obligations of Contractor under this Agreement.

H. Claims Made Coverage – If any coverage is maintained on a claims-made basis, the following shall apply:

I. The retroactive date must be shown and must be before the date of the contract or the beginning of the contract services.

II. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three years after completion of the contract services.

III. If coverage is cancelled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the contract, Contractor must purchase an extended reporting period for a minimum of three years after completion of the contracted services.

I. Cancellation/Non-Renewal – No policy of insurance required to be maintained hereunder shall be cancelled, non-renewed, or voided without 30 days prior written notice to the City of Sheboygan except where cancelation is due to the non-payment of premiums, in which event, 10-days prior written notice shall be provided.

AGENDA ITEM MEMORANDUM

DATE: 1/22/2026

TO: Public Works Committee

FROM: Jordan Skiff, Wastewater Superintendent

SUBJECT: Resolution 158-25-26 – Approving Engineering Contract—Ultraviolet (UV) Light Disinfection System Conversion (Strand Associates)

ISSUE

Should the Public Works Committee recommend approval of a proposed contract for a WWTP design contract?

STAFF RECOMMENDATION

Staff recommends approval.

BACKGROUND/DISCUSSION

At the February 2nd City Council meeting, I am requesting approval of an engineering design contract with the Strand Associates to design a major upgrade to the wastewater plant, a conversion of our disinfection process from using bleach and bisulfite chemicals to using UV light. The contract is based on a proposal Strand submitted as part of an RFP (request for proposals) process.

Disinfecting the wastewater immediately before being discharged into Lake Michigan is one of the most critical parts of our treatment process. This is especially true in Sheboygan, where our DNR permit requires year-round disinfection and meeting limits for both fecal coliform and e. coli (unlike many other plants). A brief study by Strand last year showed that UV disinfection is compatible with the hydraulic conditions at the Plant and has a comparable 20-year cost to continuing to use chemicals. Our current chemical system presents risk to our staff and drivers and is highly corrosive. Continuing to use chemicals would require a significant investment in new tanks, and chemical prices are much higher than they were a few years ago.

Transitioning to using UV light to disinfect is a step most wastewater plants have taken. This technology has been in use for decades and is safer and more stable in costs than using chemicals. A new UV system would make structural modifications to chlorine contact basins we currently use and divert the water to flow over banks of UV bulbs before leaving the Plant.

An Intent to Apply (ITA) has been submitted for a Clean Water Fund loan for this project.

IF APPROVED, NEXT STEPS

A design contract will be entered with Strand, who will complete plans, specifications and bidding documents for the construction project to be bid out. A 2027 or 2028 project is anticipated.

DEPARTMENT OF
PUBLIC WORKS

2026 NEW JERSEY AVE.
SHEBOYGAN, WI
53081

920/459-3440
sheboyganwi.gov

CITY OF SHEBOYGAN
RESOLUTION 158-25-26

BY ALDERPERSONS DEKKER AND RUST.

JANUARY 26, 2026.

A RESOLUTION authorizing the appropriate City officials to enter a contract with Strand Associates for engineering services related to an ultraviolet (UV) light disinfection transition at the wastewater treatment plant (WWTP).

WHEREAS the effective treatment of wastewater requires disinfecting the water of e. coli and fecal coliform before entering Lake Michigan; and

WHEREAS an engineering study has concluded that UV disinfection would be consistent with the WWTP's hydraulic profile and would have a comparable 20-year cost to chemical disinfection, while keeping personnel safer, reducing corrosion on tanks and equipment, and providing more stable pricing; and

WHEREAS, staff has filed an Intent to Apply (ITA) for a Clean Water Fund loan to offset some of the City's anticipated costs with this project;

WHEREAS Strand Associates provided an engineering proposal in response to a WWTP RFP (request for proposals) process; and

WHEREAS Strand Associates is the company which, in the WWTP staff's opinion, is most qualified to assist with the procurement of UV equipment and design its installation; and

WHEREAS, Strand's estimated cost for the work is $535,000, slightly more than the 2026 budget for this work.

NOW, THEREFORE, BE IT RESOLVED: That the appropriate City officials are hereby authorized to enter into a contract with Strand Associates, on a form approved by the City Administrator and City Attorney, for the engineering design of the project.

BE IT FURTHER RESOLVED: That the Finance Director is authorized to draw funds from Acct. No. 630361-641100 (Wastewater Fund—Wastewater—Capital Other Than Buildings), upon the agreement being fully executed by all parties, to pay for the design pursuant to the agreement.

PASSED AND ADOPTED BY THE CITY OF SHEBOYGAN COMMON COUNCIL _____.

Presiding Officer	Attest
_____	_____
Ryan Sorenson, Mayor, City of Sheboygan	Meredith DeBruin, City Clerk, City of Sheboygan

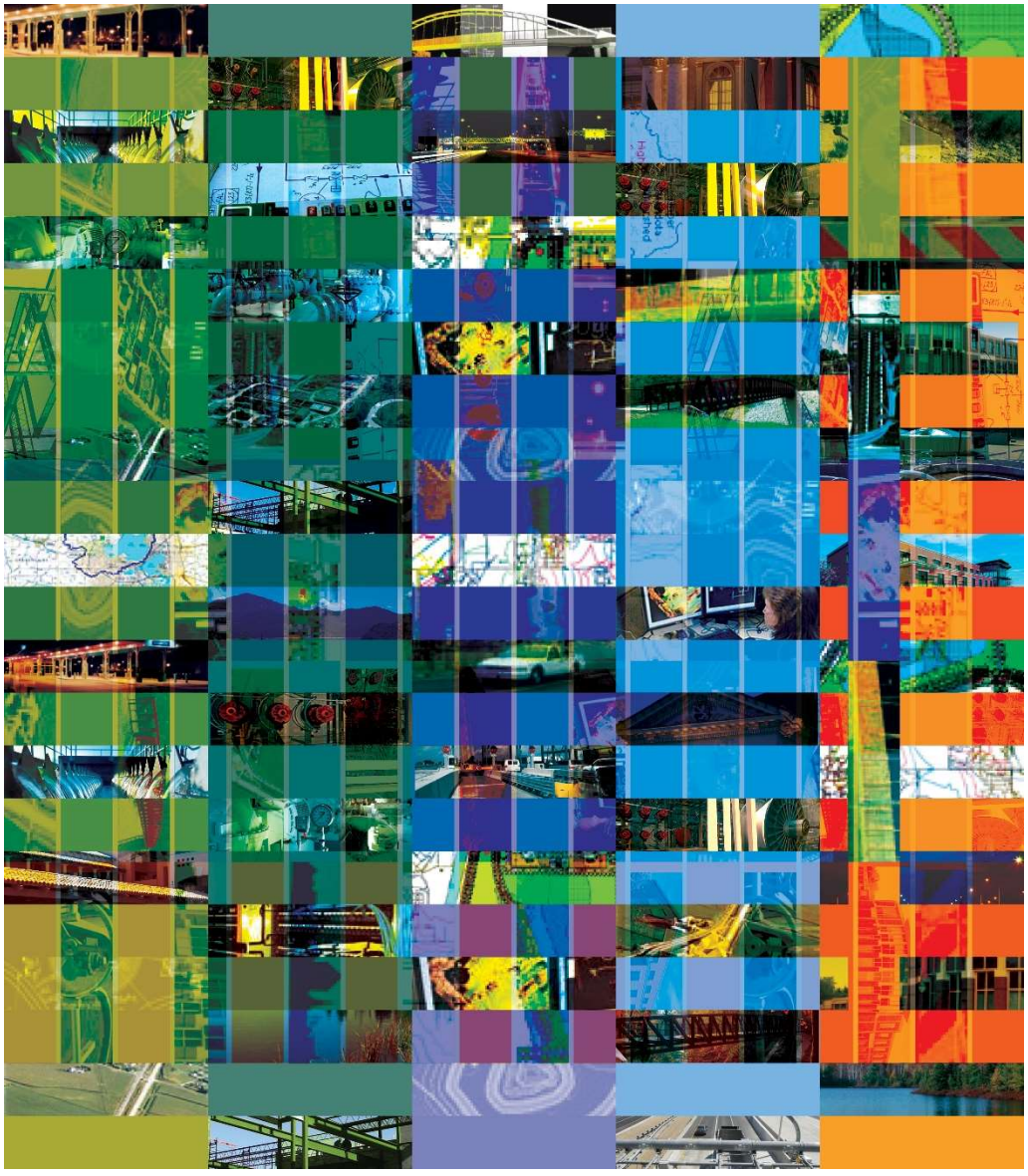
Professional

Engineering

Services

Sheboygan Regional WWTP Transition to UV Disinfection
RFP No. R25-WWTP-06

Potential Plant Expansion Study
RFP No. R25-WWTP-03



Technical Proposal

City of Sheboygan, WI

November 14, 2025

Contact Person:
Ryan M. Yentz, P.E.
Project Manager
Strand Associates, Inc.®
910 West Wingra Drive
Madison, WI 53715
608-251-4843

STRAND ASSOCIATES®

Strand Associates,
910 West Wingra Drive
Madison, WI 53715
(P) 608.251.4843
www.strand.com

November 14, 2025

Mr. Jordan Skiff
Wastewater Superintendent
City of Sheboygan
Department of Public Works, Wastewater Division
333 Lakeshore Drive
Sheboygan, WI 53081

Re: Request for Proposal (RFP) – Sheboygan Regional WWTP Transition to UV Disinfection and Potential Plant Expansion Study

Dear Mr. Skiff:

On behalf of Strand Associates, Inc.®, thank you for the opportunity to submit our proposal for the Sheboygan Regional WWTP Transition to UV Disinfection and Potential Plant Expansion Study projects. We believe we are ideally qualified to deliver these projects and provide exceptional value to the City. The following factors support our selection:

- **Experienced and familiar personnel – delivering confidence**
- **Recent completion of the 2025 WWTP Hydraulic Profile and UV Disinfection Feasibility Study – demonstrating thorough understanding of the project scope**
- **Planned plant expansion study that will answer critical questions – refining scope and goals**
- **Detailed project schedule – providing ample time for City engagement**
- **Relevant experience – showcasing expertise**

The primary contact for this project is listed below left, and the person authorized to make representations for the firm is below right:

Ryan M. Yentz, P.E., Project Manager
Strand Associates, Inc.®
910 West Wingra Drive, Madison, WI 53715
Phone: 608-251-4843
Email: Ryan.Yentz@strand.com

Joseph M. Bunker, Corporate Secretary
Strand Associates, Inc.®
910 West Wingra Drive, Madison, WI 53715
Phone: 608-251-4843
Email: Joe.Bunker@strand.com

We have reviewed the City's General Insurance Requirements and sample *General Services Agreement* included in the RFPs. We have successfully contracted with the City over the past several years and have a standing technical services agreement, which is active until June 2028. We are confident that we will be able to meet the City's contracting needs.

We are excited to work with the City on these projects. Should there be any questions or if additional information is needed, please call us at 608-251-4843.

Sincerely,

STRAND ASSOCIATES, INC.®

Ryan M. Yentz, P.E.
Project Manager

Randall A. Wirtz, Ph.D., P.E., ENV SP, Senior Associate
Quality Control Engineer

P250.990; P250.991/RMY:bsp

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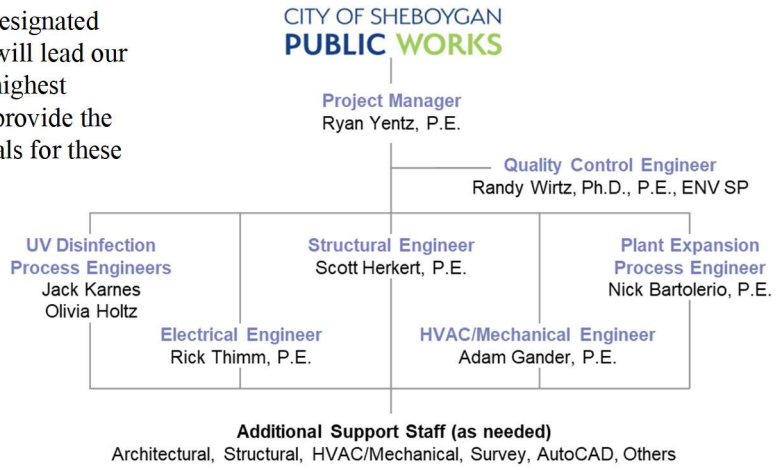
Project Design Team

Experienced and Familiar Personnel Delivers Confidence

This section demonstrates the experience and designated responsibilities of the engineers and staff who will lead our project team. As an organization, we have the highest commitment to our clients and, therefore, will provide the resources necessary to make sure the City's goals for these projects are successfully met.

On the right is an organizational chart of our team followed by a brief description of each team member and their role. Full-length resumes for key team members are included in the *Appendix*.



Project Manager

Ryan M. Yentz, P.E., will serve as the Project Manager, providing oversight and strategic guidance to facilitate success of these projects. He will work closely with the Lead Project Engineer(s) to review deliverables, provide input on key decisions, and maintain alignment with the City's expectations regarding project schedule and budget. Ryan has B.S. and M.S. degrees in Civil/Environmental Engineering from UW-Madison, and his extensive experience with wastewater treatment plant (WWTP) upgrades makes him a valuable resource for these projects. His involvement will provide the City with confidence in the direction and overall quality of the projects.

Ryan's focus has been on managing WWTP projects for a wide variety of communities throughout Wisconsin, including Sheboygan.

Communities that Ryan has been the Lead Project Engineer and/or Project Manager for several wastewater planning and design projects include Sheboygan, Fond du Lac, River Falls, Madison Metropolitan Sewerage District, Waupaca, and Merrill, Wisconsin; and Fox Metro Water Reclamation District, Illinois. Ryan has also been serving the City of Davenport, Iowa, continuously since he started working for our firm in 2016, highlighting his long-term client dedication and expertise from planning through construction. Ryan is currently involved in a facility planning effort for the Madison Metropolitan Sewerage District as the Assistant Project Manager to Randy Wirtz.

Quality Control Engineer

Randall A. Wirtz, Ph.D., P.E., ENV SP, Senior Associate, Director of Practice-Wastewater, brings a keen technical value to all aspects of this project through his more than 30 years of planning and design experience on dozens of similar projects. Randy is the corporate Director of Practice for Wastewater Services at our firm and will provide technical direction for our team. Randy has planned and designed hundreds of WWTPs across the US, including headworks, activated sludge, tertiary filtration, UV disinfection, and biosolids projects. His track record for meeting project budgets and schedules is exceptional, and he will work diligently to set the technical direction for the project early and maintain momentum throughout the project.

Randy is our firmwide wastewater Director of Practice and is involved in nearly all our significant wastewater projects.

Randy is also one of our most experienced wastewater process experts and has managed, planned, designed, or provided Quality Control (QC) review for most of our larger wastewater clients. Randy's relevant experience includes serving as Project Manager or Lead Technical Engineer on numerous similar projects:

- Madison Metropolitan Sewerage District (MSD), WI – Project Manager for the *Liquid Process Facilities Pla*n, including headworks expansion and refurbishment

- Madison MSD, WI – Project Manager for the Liquid Process Phase 1 Design, including hydraulic capacity upgrades
- Madison MSD, WI – Project Manager for the *50-Year Master Plan*
- Waterloo, IA – Project Manager for the *20-Year WWTP Facilities Plan*
- Fond du Lac, WI – Project Manager for Biosolids and Biogas Planning, QC Engineer for the Anaerobic Digestion Facilities and Cogeneration System Design
- Davenport, IA – Project Manager for the Anaerobic Digester Facilities Planning
- Dubuque, IA – Project Manager for the *20-Year Facilities Plan*
- Iowa City, IA – Project Manager for the *Biosolids and Biogas Facilities Plan*

Randy is on the National Water Environment Federation's (WEF) *Residuals and Biosolids Committee*, and the Central States WEA *Resource Recovery and Energy Committee*. He is involved in numerous innovative and significant projects, particularly those with an energy and resource recovery component. Randy is currently involved in projects for the cities of Cedar Falls and Waterloo as well as the Madison, Wisconsin, Metropolitan Sewerage District's (MMSD) *50-MGD Biosolids Facility Plan*. Randy's breadth and depth of experience in plan development, design, operations, process, regulatory compliance, and other areas of wastewater treatment is a true asset to any project.

UV Disinfection Lead Process Engineer

Jack R. Karnes, E.I.T., has a B.S. degree in Civil Engineering from the University of Wisconsin-Madison. He has experience working on many of our WWTP improvement projects ranging from facility planning through design and construction. Jack assisted Ryan Yentz in the UV disinfection planning and hydraulic capacity effort for Sheboygan in 2024 and 2025. As the Lead Process Engineer, Jack's experience with facility planning, hydraulic analysis, and plan development will be a great asset in the completion of the UV Disinfection Design and WWTP Expansion Study projects.

Jack assisted Ryan with the Hydraulic Profile and UV Disinfection Feasibility Study, putting him in a favorable position to refine the design details of these projects.

Jack was the Lead Project Engineer on design projects for Iowa City, Iowa, and Green Bay Metropolitan Sewerage District, Wisconsin, and he assisted in delivering construction administration services on a UV disinfection upgrade for New Glarus, Wisconsin. Jack is currently managing a UV disinfection design project for the community of Cedar Falls, Iowa, after assisting Randy Wirtz with the facility planning effort.

Plant Expansion Process Engineer

Nicholas A. Bartolerio, P.E., has been with our firm for 13 years. He has a B.S. degree in Civil Engineering from the University of Wisconsin-Madison and a M.S. degree in Environmental Engineering from the University of Illinois at Urbana-Champaign. Nick has extensive experience with wastewater treatment processes at laboratory, pilot, and full-scale, and has become a recognized expert in modeling wastewater processes, hydraulics, and biological system dynamics.

Nick is our firm's premier engineer for modeling wastewater treatment processes and hydraulics.

Nick has completed process modeling and capacity evaluations for many facilities, including FMWRD, Greater Peoria Sanitary District, TCBSD, KRMA, Joliet, Moline, Bartlett, Naperville, Crest Hill, and Bensenville, Illinois; Dubuque, Davenport, Ames, and Waterloo, Iowa; Louisville MSD, Ashland, and Regional Water Resource Agency, Kentucky; and Morgantown and Huntington, West Virginia. Nick has been the Lead Process Engineer for many nutrient reduction studies and facilities plans.

Nick specializes in process evaluations and emerging technologies and is regularly involved with developing operations control for equipment and processes. His process modeling experience includes facilities with high industrial contributions, high strength hauled waste, landfill leachate, nutrient deficiencies, and many other complex process challenges.

UV Disinfection Assistant Process Engineer

Olivia N. Holtz holds a B.S. degree in Environmental Engineering from Valparaiso University and will be assisting Ryan and Jack with contract document development for the UV Disinfection Design project. Olivia is one of our bright young engineers that has gained significant experience with design document development, and she will focus on design development and coordination among all our disciplines in her role.

Olivia will assist Ryan and Jack with the UV Disinfection project.

Electrical Engineer

Richard G. Thimm, P.E., is an electrical engineer with 19 years of facility electrical and supervisory control and data acquisition (SCADA) systems preliminary plan development, design, and construction-related experience for water and wastewater facilities, ranging from individual lift stations to complete treatment plants and collection/distribution systems. Rick is well-versed in low- and medium-voltage power distribution, process instrumentation and PLC-based instrumentation and controls, lighting systems, and SCADA communications systems. Rick was the Project Manager for the Sheboygan WWTP Main Electrical Switchgear Replacement project.

Rick has been the Lead or Project Engineer for UV disinfection planning and design projects for the City of Port Washington, Waukesha, Village of Salem Lakes, City of Stevens Point, Ashippun Sanitary District, Village of Fredonia, and New Glarus, Wisconsin, to name a few.

Rick has been the Lead or Project Engineer for numerous preliminary and final design projects, including the Waukesha WWTP Anaerobic Digester Upgrades, Manitowoc WWTF Improvements, Port Washington WWTP Digester Building Improvements, and Kankakee River Metropolitan Agency Digester Complex. Rick has also assisted with major electrical upgrades projects to WWTPs in Sheboygan, Wisconsin; Glen Elyn, Illinois; and Lexington, Kentucky.

Rick will provide a wealth of previous WWTP electrical and controls experience to the design and capacity study efforts.

Structural Engineer

Scott G. Herkert, P.E., Senior Associate, has 34 years of experience with our firm and has provided structural evaluation and design services on a variety of projects, including wastewater and water treatment plants and administration buildings. Scott is also our coatings and concrete repair specialist and has prepared many analyses of the structural integrity and coatings needs for WWTP structures.

Scott has extensive wastewater design and construction experience with renovation of existing facilities and new facilities. His renovation experience includes adding on to existing structures, upgrading existing facilities by replacing various elements or systems of both tank- and building-type structures (grating, railing, walkways, reroofing, doors, windows, lifting devices, etc.), modifying interior spaces, equipment replacement, concrete and masonry repairs, coatings, and many other elements of facility upgrades.

A select listing of wastewater projects on which Scott served as the Structural Engineer includes an Operation and Needs Review for the City of Manitowoc, facilities planning and capital improvements planning for the City of Stoughton, and Operations and Needs Assessment for the Shawano Wolf WWTP, Wisconsin; Nutrient Reduction Modifications for the Ames, Iowa, Water Pollution Control Facility; and Biosolids and Biogas Master Plan for the Fox River Water Reclamation District, Illinois.

Scott will guide the structural design team and provide insight on structural considerations regarding plant expansion.

HVAC/Mechanical Engineer

Adam D. Gander, P.E., has 17 years of mechanical engineering experience. Adam has served as the Lead Mechanical Engineer on multiple projects and is well-versed in WWTP projects. He has experience with all phases of project development, including budget development, preliminary design, final design, and construction-related services.

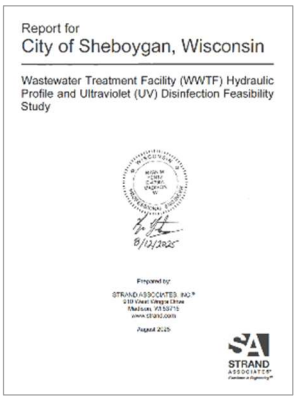
Adam has experience with designing HVAC systems for odorous and hazardous spaces. He is an expert with the different equipment and codes related to these types of spaces, including digester complex and interconnected tunnel systems. Adam is also familiar with natural gas, digester gas, and hot water systems. His attention to detail and familiarity with code requirements associated with HVAC systems make him a valuable member of the team. Adam was involved in several wastewater facilities, including projects for the Rib Mountain Metropolitan Sewerage District, Waukesha WWTP Anaerobic Digester Upgrades, and Manitowoc WWTF Improvements, Wisconsin; the Morgantown Utility Board, West Virginia; the Fox River Water Reclamation District in Elgin, Illinois, and multiple others.

Adam has unmatched HVAC expertise at WWTPs, including complex digestion/tunnel systems requiring NFPA 820 analyses.

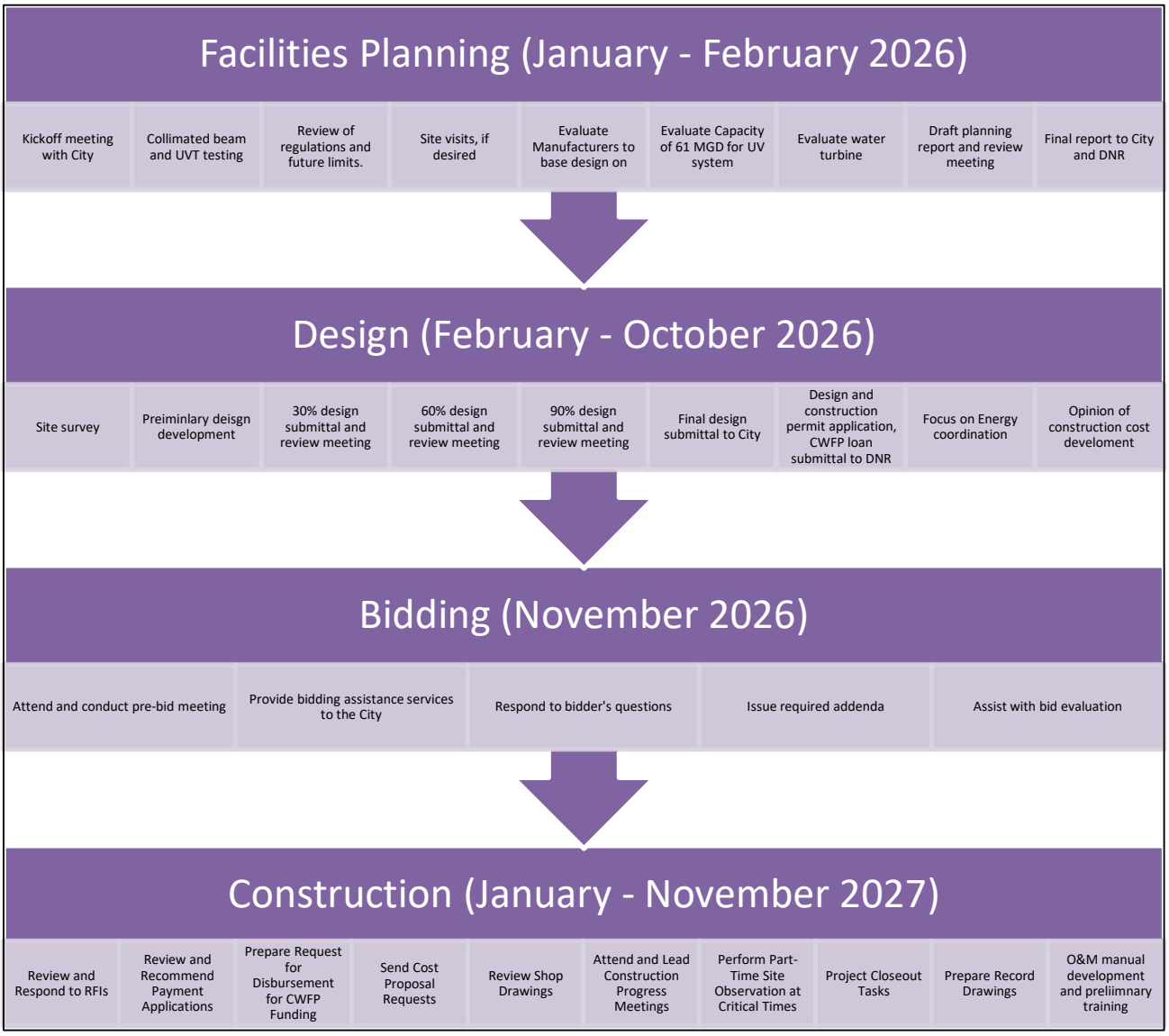
Project Understanding, Approach, and Scope – UV Disinfection

Recent Completion of the 2025 WWTP Hydraulic Profile and UV Disinfection Feasibility Study Demonstrates Thorough Understanding of the Project Scope

The City's RFP requested design, bidding, and construction services related to the proposed ultraviolet (UV) disinfection project at the Wastewater Treatment Plant (WWTP). The schedule in the RFP indicates a facility plan submittal, which is a DNR requirement for review and approval. The facilities plan is also required to obtain project funding through the Clean Water Fund Program (CWFP) low interest loan program. Therefore, we have included a facilities planning phase in our scope of services and have identified the anticipated planning scope, schedule, and fee to allow the City to compare our overall scope and fee with our competitors who may not understand a facilities plan is required. Included in the figure below is a summary of the tasks, meetings, and deliverables anticipated for each of the major project phases. Following this brief introduction, we have included a detailed description of the engineering tasks that we will deliver to the City.


Report for
City of Sheboygan, Wisconsin
Wastewater Treatment Facility (WWTF) Hydraulic Profile and Ultraviolet (UV) Disinfection Feasibility Study

Our 2025 UV Feasibility Study will serve as the starting point for facilities plan submittal to the DNR.



In general, our approach includes significant involvement and interaction with the City and WWTP staff, which is consistent with our approach during the recently completed feasibility study. We believe this is necessary to develop and deliver a successful project. In particular, the WWTP staff need to be involved in the technology selection and facilities layout, since they will be asked to manage, operate, and maintain this new system once constructed. We have included the following meetings, visits, and related interaction with the City to make sure the City is fully integrated within the planning and design process.

- Planning kickoff meeting with the City
- Site visits to three or more plants to observe operating UV systems
- Planning review meeting following submittal of the draft planning report, including review of project budgets
- Design review meetings following 30, 60, and 90 percent design completion

Brief Facilities Planning Phase is Needed to Comply with DNR and Funding Requirements

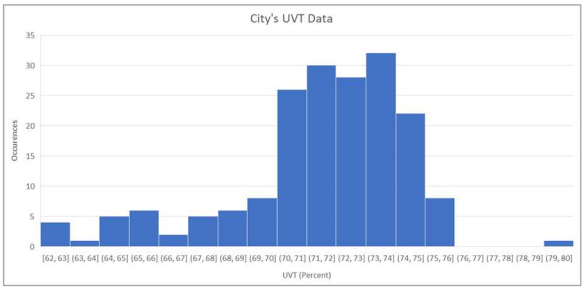
The project will commence with a planning phase, per DNR requirements. The flow and loading data and projections from the previous Draft 2020 Wastewater Treatment Facility Plan (Donohue) will provide the basis for establishing the capacity of the new UV disinfection system. The *2025 WWTF Hydraulic Profile and UV Disinfection Feasibility Study* (Strand) will provide the basis for selecting UV disinfection to meet the DNR's requirements for an abbreviated facilities plan. The planning document will summarize the findings of the 2025 report. This phase is also when additional assessments will be conducted, including continuous UVT testing and collimated beam testing.

Although the RFP did not separate planning services in the scope, we have included a facilities planning phase in our scope of services to comply with DNR requirements.

Specific tasks included in the planning phase are presented and discussed below.

- **Conduct/Lead Kickoff Meeting.** The initial task in this phase is to conduct a kickoff meeting with the City to discuss the project background, scope, schedule, budget, and related issues. We will also conduct an on-site walk through after this meeting to review the existing facilities, including the existing disinfection building and chlorine contact tanks.

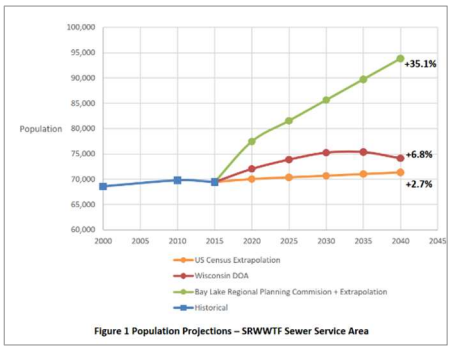
- **Coordinate Additional UVT Testing and Collimated Beam Testing.** The City collected a significant amount of UVT data on secondary effluent from January to August 2024. This data showed fairly consistent results – all of the test results showed UVT values greater than 60 percent transmittance, and a vast majority were higher than 65 percent transmittance. Typical design UVTs are in the range of 55 to 65 percent transmittance, depending on UVT and effluent limits. We recommend additional testing be conducted now to provide as much UVT data as possible to inform the design of the system. The RFP requests that constant UVT monitoring and collimated beam testing be included. We will provide a sampling protocol for collimated beam testing and arrange for the UVT testing equipment to be provided to the City from one of the UV system suppliers. Note that we have not included budget to conduct the constant UVT testing or the collimated beam testing in our proposal since these services are typically offered at no cost.



UVT data from the City's 2024 testing effort

- **Review of Regulations and Future Limits.** The WPDES permit requires year-round disinfection of fecal coliform and E. coli. The current WPDES permit expires in March 2026, and we will communicate with the DNR regarding review regulations and future permit requirements associated with changing to UV disinfection (i.e., removal of residual chlorine limits and monitoring requirements).

- **Coordinate Site Visits.** We believe it is important to observe actual operating systems and to speak to the operators of the systems to discuss maintenance, performance, and overall satisfaction. We have included three site visits to be coordinated over the course of 2 days. The City previously visited the Port Washington facility (Strand design) We recommend visiting plants with different manufacturers. Fond du Lac and Madison Metropolitan Sewerage District are two larger facilities in proximity to Sheboygan that we have designed that would be advantageous. Additionally, Milwaukee Metropolitan Sewerage District is currently pilot testing an alternative manufacturer (Ultra-Aqua), which also could be visited. Additional site options will be discussed to decide on the actual plants to visit.



Population projections will be updated to Year 2050 from those developed in the 2020 Facility Plan.

- **Evaluate Capacity of UV System.** Of particular importance is the design flow capacity. Currently, we are planning for 61.1 MGD based on the 2020 Plan, which evaluated historical data from May 2013 to December 2018. However, data from 2019 to present in addition to population projections through year 2050 will be conducted (2020 Plan projected through year 2040). For example, we understand the City experienced a peak flow of approximately 70 MGD in May 2020, which is significantly higher than the current 61.1 MGD. Additionally, coordination with the *Plant Expansion Study* will be required to provide provisions for UV expansion in the coming years should the WWTF receive rapid development from a wet industry that leads to average influent flows doubling. It should be noted that UV performance may be impacted depending on the type of industry coming in.

- **Evaluate UV System Manufacturers.** The *2025 UV Feasibility Study* evaluated the Trojan Signa UV system, which is a major UV supplier in the United States. Our typical UV designs have included a parallel design package of Trojan and Wedeco. A parallel design package is required to allow both manufacturers to submit a competitive bid due to the differences in geometry, electrical, and HVAC requirements of the two systems. Although this results in additional engineering effort, our experience suggests that these costs are more than recovered by maintaining cost competitiveness on bid day. The previously mentioned Ultra-Aqua UV system has a significant number of installations overseas and could provide a competitive bid, on a singular design, around the Trojan system. This evaluation will determine which manufacturers (including potential others not mentioned) will 'best' suit the City's needs for operation and maintenance while providing a cost-competitive design package.


Facilities planning will evaluate additional manufacturers to determine competitive bidding strategy.

- **Evaluate Water Turbine.** We understand that the City has a close relationship with the Focus on Energy group and has a goal of maintaining low energy usage at the WWTP. Changing from the existing chlorine disinfection system to UV disinfection will add electricity demand and usage at the WWTP. The RFP requests consultants evaluate the potential of implementing a water turbine using the WWTP hydraulics. Our recent hydraulic profile update for the WWTP indicates there is a reasonable amount of head available for an intermediate system. We will evaluate placement of a water turbine in terms of footprint, electricity generation, capital cost, and direct payback.

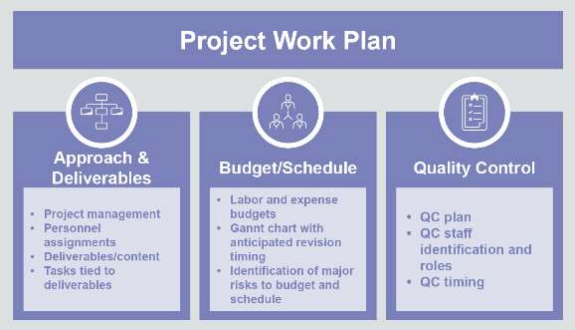
- **Draft Facilities Planning Report and Review Meeting.** A draft facilities plan related to the UV disinfection system will be developed and submitted to the City for review. The report will update our *2025 Feasibility Study* to include flow projections associated with more recent data and projections to year 2050, as well as the regulatory review specific to disinfection. The report will include sections for project background, existing flows, projected flows, regulatory review, alternatives considered, cost evaluations (capital, O&M, replacement, and total present worth),

and comparisons of non-monetary elements of applicable alternatives. The report will include a recommended plan, overall project budget, and related components to comply with the DNR's process requirements as well as the SRF program requirements. Following a brief review period, we will meet with the City to review the document and to discuss any questions on the draft plan.

- **Submit Final Facilities Planning Report to the City and DNR.** Following our review meeting, we will draft and submit the final facilities plan to the City and DNR for their review and approval. We do not expect to delay the design phase while the DNR is reviewing the facilities plan. We are confident that our plan will meet all DNR requirements, and that the plan will be approved in a timely manner and without needing to change anything of substance.

Efficient Design Approach Will Engage City Staff

Following the brief facilities planning phase of the project, we will commence detailed design. During the design phase, we will refine the conceptual/preliminary design from the planning study to a detailed design on paper that will enable competitive bidding of the project. The design will include all necessary engineering and technical disciplines, including process wastewater, mechanical/HVAC, electrical, site/civil, hydraulics, 3D Revit drafting, and surveying. We do not plan to hire a subconsultant for any of the required services for this project since we provide full-service engineering services in-house. Because the project is expected to be located within the existing chlorine contact basins, we do not anticipate the need for geotechnical services. The following tasks and scope are included as described:



Project work plan is critical to meeting overall schedule and avoiding rework.

- **Conduct Site 3D Scan/Survey.** We will conduct a site survey to establish existing elevations and structure locations, as well as to identify utilities. We will also establish the elevation of all affected processes, structures, and hydraulic control elements such as weirs, pipe inverts, flumes, and related control. As part of the survey, we will do a 3D scan to capture the nuances of the chlorine contact tanks and develop drawings in AutoCAD Revit. If acceptable to the City, this survey will likely be conducted during the planning phase, although it is technically part of design. This will save overall project schedule.

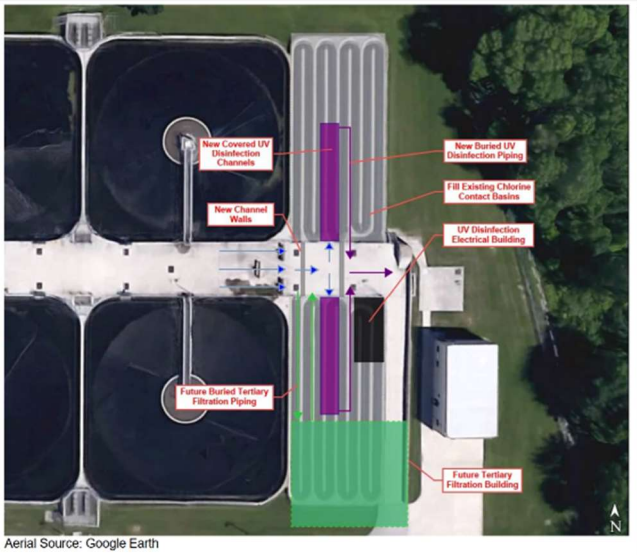
- **Preliminary Design Development.** During this phase, we will continue to develop upon the preliminary layout identified in the *Feasibility Study*. Alternative locations may be reviewed, including where in the tanks to place the UV equipment and potentially locating both UV systems in the same tank to allow more space for a future tertiary filtration building (or other process building). The deliverable will include conceptual drawings and technical details on major building and process materials. This will be submitted to the City for final concurrence prior to beginning the technical specification and design drawings. As needed, we will discuss this information with the City and modify.

Our involvement with the main switchgear replacement at the WWTP will be beneficial during preliminary design.

- **Develop +/-30 Percent Design Drawings.** The drawings will include process schematics, site and plan view layouts, electrical one-line diagrams, process control description, and similar design information for submittal to the City. Following this submittal, we will schedule a 30 percent design review meeting with the City to present and discuss the current design documents.

- **Develop +/-60 Percent Design Documents.** The documents will include more detailed design drawings, plan views, section views, and related drawings. In addition, the first draft of technical specifications will be provided at this time, as well as the first draft of the front-end contract documents. We understand the City's requirement of using its standard front-end contracts and will work with the City to incorporate those documents into the overall bidding documents. Following this submittal, we will schedule a 60 percent design review meeting with the City to present and discuss the current design documents.

- **Develop +/-90 Percent Design Documents.** The documents will include near final design drawings, technical specifications, and front-end contract documents. At this point, the design is very well established and the main focus of review will be on electrical and control details. Following this submittal, we will schedule a 90 percent design review meeting with the City to present and discuss the current design documents.



Aerial Source: Google Earth

Figure 6 Alternative No. 1 UV Disinfection Site Plan

Design phase will continue to develop upon the concept of retrofitting the existing chlorine contact basins to utilize existing flow path. Access of the center alley above the existing tunnel will be maintained for WWTP staff.

- **Develop Final Design Drawings, Technical Specifications, and Contract Documents (bid documents) and Submit to the City and WDNR.** These will be developed based on the City's comments on the 90 percent documents. The final documents will be submitted to the DNR for review and approval.

- **Assist City in the CWFP Loan Application Effort.** This will include completing as many of the forms as possible with the information available to us or by requesting said information from the City. We are experienced in the CWFP process and will assist in whatever capacity is needed.

- **Opinion of Construction Cost Development.** With each design deliverable, we will also include an update to the opinion of construction costs and submit to the City for review. As the design is further defined, contingencies will be reduced. With each submittal, we will also prepare a list of changes that may have impacted the construction cost to allow the City to make decisions as needed to maintain the project budget.

Maintaining an accurate opinion of construction costs by updating it at key design milestones allows City to make educated decisions to meet project budget before bid opening.

Bidding Services Have Positive Impact on Quantity and Quality of Bids

Typically, we are heavily involved during the bidding phase of all of our thousands of projects. Based on our previous experience, we anticipate the following services during the bidding phase:

- Provide details of the project in a draft advertisement to bid. The draft advertisement will be provided in a WORD document for the City's use in publishing the advertisement.

- Attendance at a pre-bid meeting for prospective bidders, if desired.

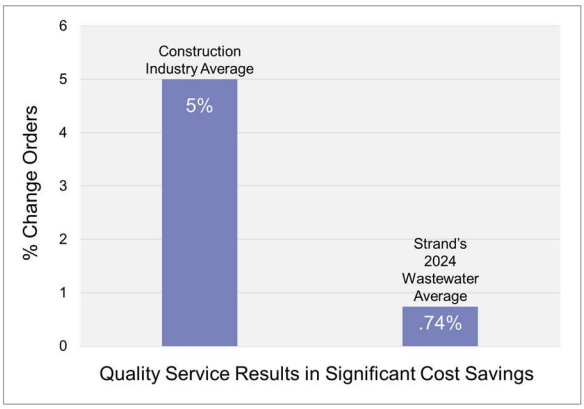
- Respond to bidder's questions in writing. As needed, we will issue addenda to modify the *Bidding Documents* for all prospective bidders.

- Assist the City, if requested, with review of bids, bid tabulations, and other tasks related to awarding of the construction contractor.

Construction-Phase Services Provide Expertise Where Needed to Minimize Cost and Maximize Value

The RFP requests that construction-phase services be limited to minimize expenses. We are proposing the minimum amount of service during construction to maintain our identification as the "Engineer", as defined by the Engineer's Joint Contract Documents Committee (EJCDC). In addition to these services, we are proposing to include part-time observation during critical times of construction to assist in project success consistent with the RFP. We have also identified a few value-added items. The amount of on-site observation and value-added services can be determined following award of this project.

- **Baseline Construction Services**
  - Review and respond to contractor requests for information (RFI) related to the contract documents.
  - Review contractor's payment applications, including schedule of values, progress completed since the previous payment application, and request for disbursement for CWFP funding.
  - Issue cost proposal requests for changes to the project as well as prepare and execute change orders pursuant to the cost proposal requests, if approved by the City. We are very proud of our record of low change orders. The industry average for change orders is 5 percent, however, our average change order percentage on multi-million dollar engineering projects is significantly below this average
  - Review contractor's shop drawing submittals for concurrence with the contract documents.
  - Attend and lead monthly construction progress meetings. We will prepare an agenda before and provide minutes following each meeting.
  - Project closeout tasks, including punch list and substantial and final completion documents.



Change order record demonstrates the value of quality engineering. Based on the expected bid day cost of approximately $6 million, our change order record suggests a savings of more than $250,000 compared to the industry average.

- **Part-Time Observation at Critical Times**. We will provide part time observation during critical times of the project, including concrete pours, equipment deliveries, major installation, and startup. For the purposes of our proposal and based on previous projects with similar goals for the Engineer during construction, we have assumed 200 hours of observation (approximately 25 days). We will discuss with the City an appropriate amount of time to include during contract execution to meet the City's needs, and the City will not be invoiced for hours that are not spent.

- **Preparation of Record Drawings (OPTIONAL SERIVCE).** The contractor will be responsible for marking up the contract documents with changes or deviations made on-site. Our experience is that it is beneficial for the City to have the record drawings drafted into an as-built set. We have not included time in our proposed construction fee to complete this, but can do so if the City desires.

- **O&M Manual Development and Preliminary Training (OPTIONAL SERVICE).** Although not required in the RFP, we believe that development of an operation and maintenance manual and preliminary training in addition to what will be provided by the UV manufacturer associated with the new equipment, is important. Our experience is that this provides WWTP staff with a more holistic view of operations of the equipment, and we can provide this, if the City desires.

Project Understanding and Approach – Plant Expansion

Plant Expansion Study Will Answer Critical Capacity Questions

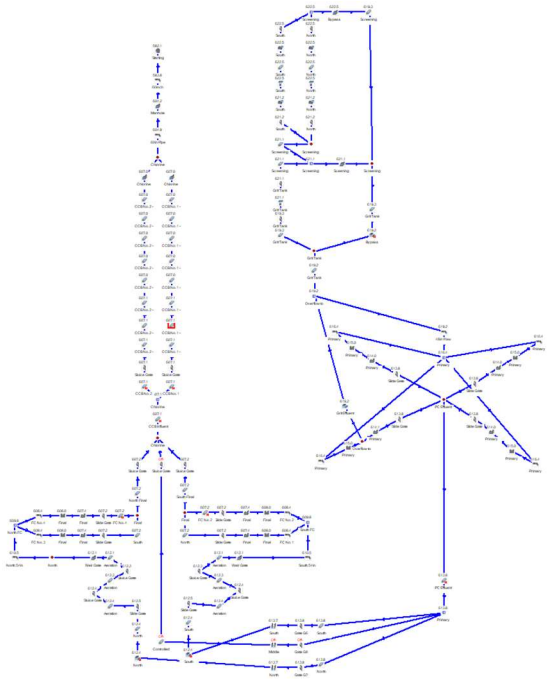
We understand that the City's WWTP currently has adequate capacity to treat wastewater flows and loadings based on current conditions. However, things can change quickly, should a wet industry be interested in developing within the WWTP service area. This plant expansion study will provide the analyses to define the capabilities of existing processes as well as potential opportunities to increase capacity. Our understanding of the City's current WWTP unit processes and desired scope of this project is presented in *Figure 1* on the following page.

Efficient Scope of Services is Tailored to Project Goals and City's Budget

We understand that the City has a budget of $50,000 in its *Capital Improvement Plan* for a plant expansion study. We think this is feasible given our knowledge of the existing WWTP, a collaborative approach, and potential efficiencies associated with also working on the UV Disinfection project proposed at the same time. Our proposed scope of services includes the following:

- **Project Kickoff Meeting.** We will conduct an on-site kickoff meeting with the City and, at a minimum, will discuss project objectives, City expectations, critical success factors, roles and responsibilities, and project schedule.

- **Condition Assessment.** We will bring staff members from our process, electrical, structural, and mechanical/HVAC groups to the site to review the existing facilities and conduct a workshop to discuss specific condition concerns throughout the plant. This information will be used to identify required upgrades to the existing plant facilities regardless of any needed capacity expansion, which is critical to maintaining existing operations and capacity. We anticipate a collaborative workshop with City staff to discuss problem areas of the WWTP and items staff would like to be addressed. The condition assessment and evaluation of existing facilities should be reusable with future full plant facilities planning.

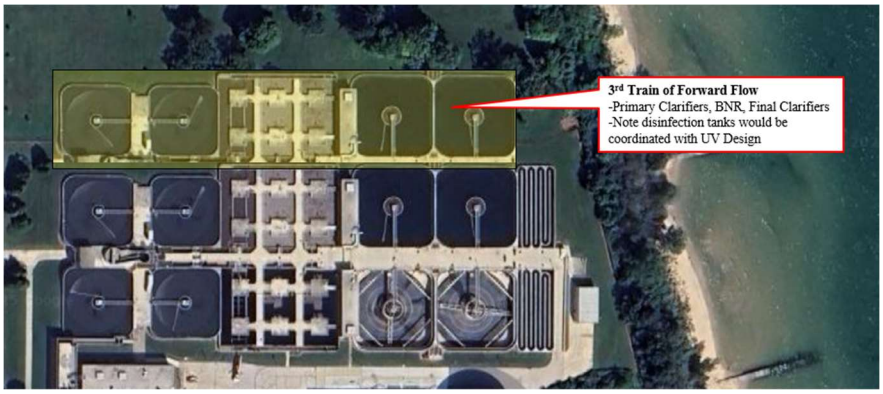


Existing hydraulic model of WWTP provides efficiencies in determining hydraulic capacity of forward flow processes.

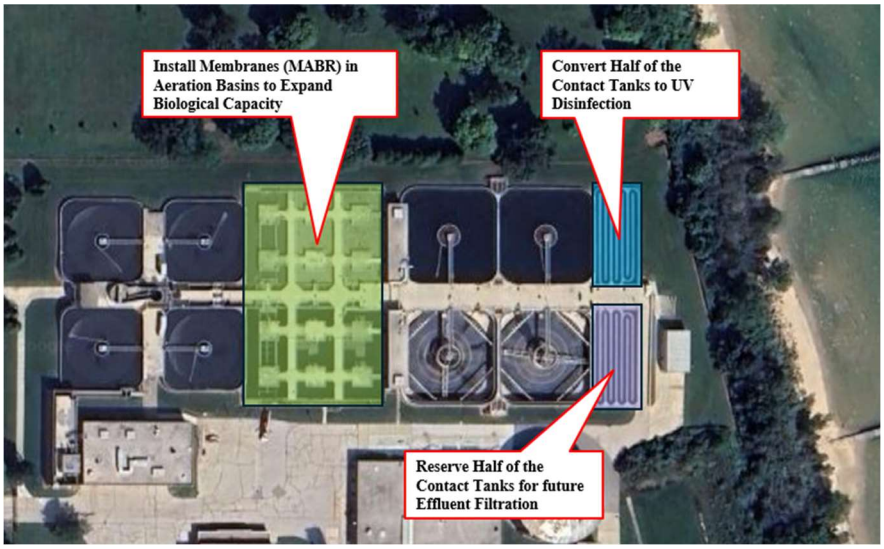
- **Existing WWTP Capacity Analysis**. Evaluation of the existing treatment capacity will assume average flows and loadings will double from current conditions, with peak flows remaining approximately the same as the current design (61.1 MGD). Capacities will be evaluated based on equipment nameplate capacities, shop drawings, design report data, and will be compared to Wisconsin Administrative Code NR 110, and other typical engineering design standards, as appropriate.

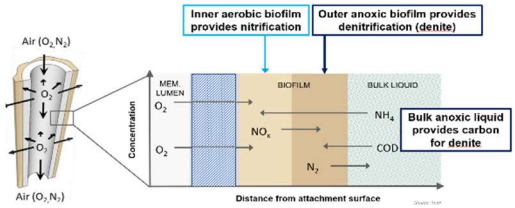
- **High Level Alternatives for Expansion.** Following the capacity analysis, we anticipate a workshop to review the results of this and discuss high-level alternatives for expansion. The RFP indicates that current average flows (11 MGD) are approximately 60 percent of the design average flow (18 MGD), and to assume current flows double in the coming years. This suggests that a total flow of approximately 22 MGD will be used, which is approximately 120 percent of the current design average flow. The most intuitive way to expand the WWTP would be to add a third train to the north of the existing WWTP, potentially using a portion of

Lakeview Park. As discussed in the RFP, we will look at potential Lakeview Park deed restrictions as part of this project to identify any concerns for plant expansion into that area. An additional alternative would be to expand the capacity by implementing an intensification process, such as aerobic granular sludge (AGS), membrane aerated biofilm reactor (MABR), or integrated fixed-film activated sludge (IFAS) into the plant. These intensification processes would increase capacity significantly within the existing tanks/WWTP footprint.

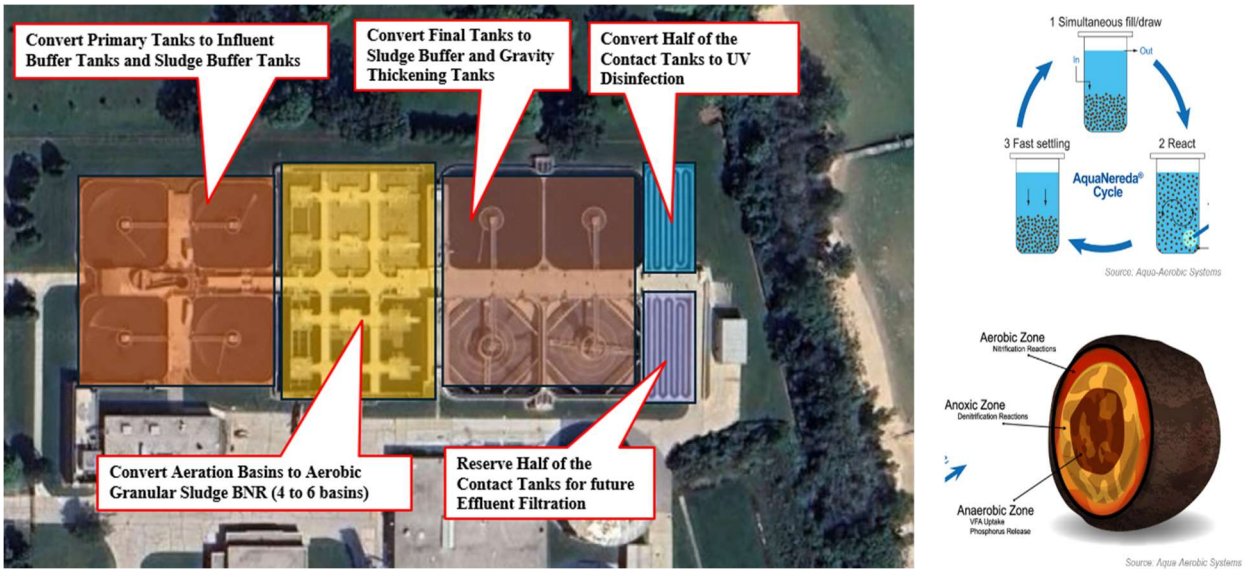


Alternative 1 – Expanding the existing forward flow train to the north. There is potential to not expand all unit processes depending on capacities (i.e., potentially only add BNR tanks).





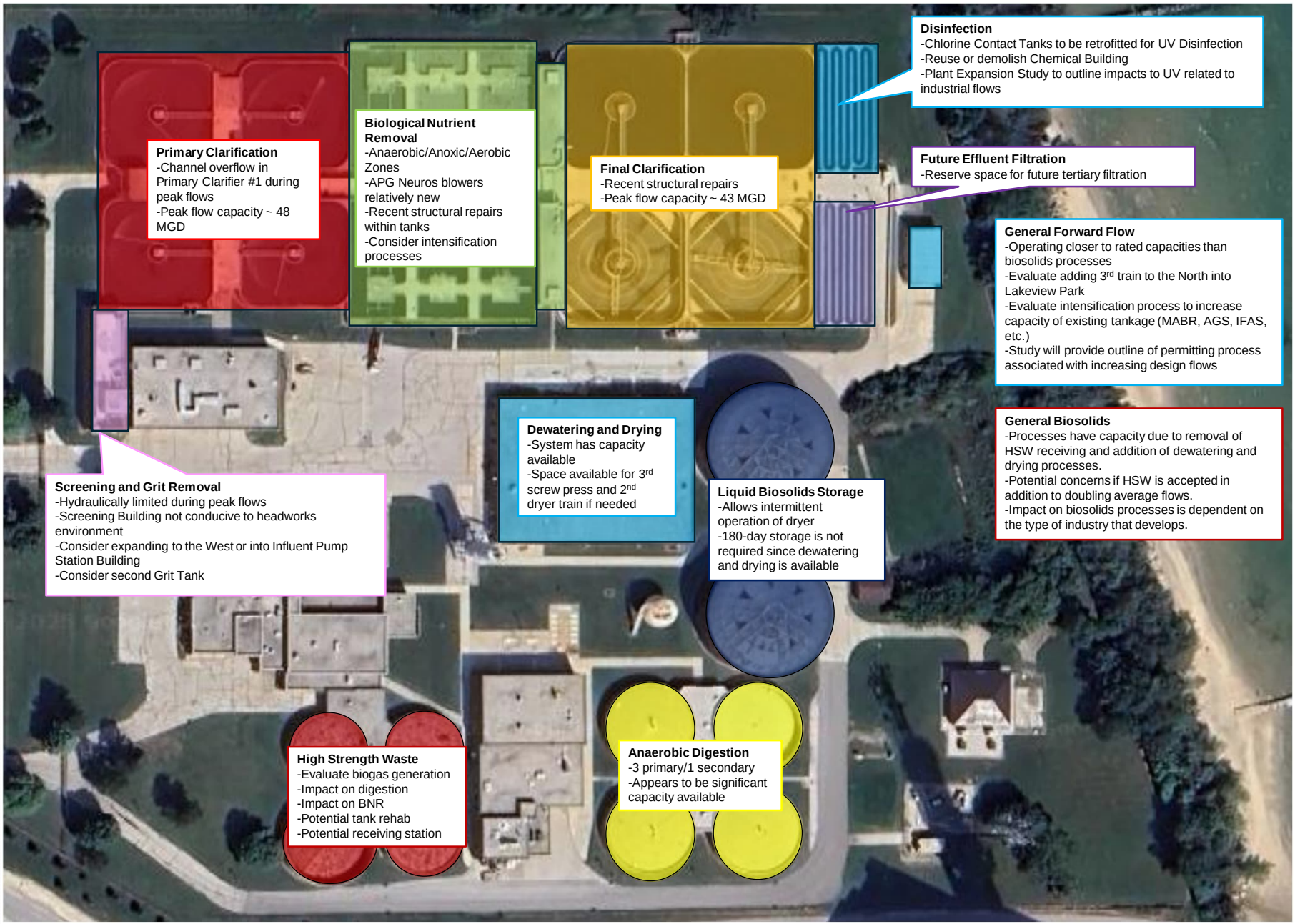
Alternative 2a – Intensification using Membrane Aerated Bioreactors (MABR) would add considerable capacity without expanding the footprint.



Alternative 2b – Intensification using Aerobic Granular Sludge (AGS) could more than doubling the capacity in the same footprint.

Permitting Outline. Should the flows increase above the current design average flows, the WWTP will need to modify its existing WPDES permit. As part of this process, an anti-degradation analysis may be required to demonstrate that water quality of Lake Michigan is not being impacted by increasing the effluent discharge. Depending on the results of the anti-degradation analysis and the WDNR's review of water quality, the WWTP may receive more stringent limits. While completion of an anti-degradation analysis, preliminary permitting services, or review of alternatives to meet more stringent limits are not included in the current scope of services, the *Plant Expansion Study* will discuss a roadmap to inform the City on what additional steps may be required if the design flows increase beyond the current design capacity.

Report Development and Review Meeting. A draft *Plant Expansion Study* will be developed and submitted to the City for review. We will meet with the City to review the document and discuss any questions on the draft plan. Following that meeting, we will address comments and finalize the report.



UNDERSTANDING OF EXISTING WWTP

SHEBOYGAN WWTP POTENTIAL PLANT EXPANSION
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY, WISCONSIN

STRAND ASSOCIATES®

FIGURE 1
P250.990

Project Timeline

Project Schedule Provides Ample Time for City Engagement

We have significant experience with similar projects of this scope and size, and we are confident in our ability to complete these projects on time and budget for the City. As shown on the schedules, we intend to consolidate the kickoff meetings for both projects for greater efficiency. Assuming we are notified of selection by November 21, 2025, we can meet with the City as soon as possible to refine scoping. We anticipate executing contracts in 2025 to be able to kick off in January 2026. A breakdown of the two project schedules is shown in the following tables.

City of Sheboygan WWTP Expansion Study Proposed Schedule									
		November-25	December-25	January-26	February-26	March-26	April-26	May-26	June-26
0.1	Meet with City to discuss project scope	■							
0.2	Submit contract to City for review		■						
0.3	Develop project workplan following execution of contract		■						
1	**Capacity Study Services**								
1.1	Conduct project kickoff meeting								
1.2	Perform WWTP condition assessment								
1.3	Develop WWTP capacity analysis								
1.4	Develop high level alternatives for WWTP expansion								
1.5	Assist City with WPDES permit application								
1.6	Develop report and hold a review meeting with City								
1.7	Finalize report following review with the City								

City of Sheboygan WWTP Transition to UV Disinfection Proposed Schedule																										
		November-25	December-25	January-26	February-26	March-26	April-26	May-26	June-26	July-26	August-26	September-26	October-26	November-26	December-26	January-27	February-27	March-27	April-27	May-27	June-27	July-27	August-27	September-27	October-27	November-27
0.1	Meet with City to discuss project scope																									
0.2	Submit contract to City for review																									
0.3	Develop project workplan following execution of contract																									
1	**Facility Planning Services**																									
1.1	Conduct project kickoff meeting																									
1.2	Coordinate additional UVT testing and collimated beam testing																									
1.3	Review regulations and future limits																									
1.4	Coordinate site visits																									
1.5	Evaluate UV system manufacturers																									
1.6	Evaluate capacity of 61 MGD for UV system																									
1.7	Evaluate water turbine																									
1.8	Draft facilities planning report and coordinate review meeting																									
1.9	Submit final facilities planning report to City and WDNR																									
2	**Design Phase Services**																									
2.1	Conduct site 3D scan and survey																									
2.2	Develop preliminary design																									
2.3	Develop 30 percent design drawings																									
2.4	Submit 30 percent design drawings and conduct review meeting with City																									
2.5	Develop 60 percent design drawings and specifications																									
2.6	Submit 60 percent design documents and conduct review meeting with City																									
2.7	Develop 90 percent design drawings and specifications																									
2.7	Submit 90 percent design documents and conduct review meeting with City																									
2.8	Develop final design drawings, specifications, and contract documents																									
2.9	Submit final contract documents to City and WDNR																									
2.10	Assist City in the CWFP loan application effort																									
2.12	Develop opinion of probable construction cost																									
3	**Bidding Phase Services**																									
3.1	Attend and conduct pre-bid meeting																									
3.2	Provide bidding assistance services to the City																									
3.3	Respond to bidders' questions																									
3.4	Issue required addenda																									
3.5	Assist with bid evaluation																									
4	**Construction Phase Services**																									
4.1	Construction start																									
4.1	Review and respond to RFIs																									
4.2	Review and recommend payment applications																									
4.3	Prepare request for disbursement for CWFP funding																									
4.4	Send cost proposal requests to contractor																									
4.5	Review shop drawings																									
4.6	Attend and lead construction progress meetings																									
4.7	Perform part-time site observation at critical times																									
4.8	Administer project closeout tasks																									
4.9	Prepare record drawings																									
4.10	Develop O&M manual and coordinate training sessions																									
4.11	Substantial Completion/Startup																									
4.12	Final Completion																									

=Facility Planning =Design =Bidding =Construction

Experience and Project Examples

Relevant Experience Showcases Expertise

Wastewater engineering has been a core service provided since our beginnings in the 1940s, and we are one of the top wastewater engineering firms in Wisconsin, the Midwest, and the nation. We are consistently ranked among *Engineering News Record's Top 25 Wastewater Firms.* **Our most current ranking is 17th in the country based on WWTP-related billings for services.** As such, our firm provides nationally recognized wastewater expertise.

The table below presents a small sampling of our wastewater experience for clients across the State of Wisconsin, where most of our wastewater engineers reside and practice. We serve well over hundreds of municipalities across the Midwest with their wastewater engineering needs, and a full list of clients and projects would span many pages and include billions of dollars of WWTP construction over the last 10 years alone. We are a national leader in wastewater engineering, and we will bring that full experience to the City of Sheboygan on these important projects.

Strand Associates, Inc.® Recent Wisconsin Wastewater-Related Planning/UV Projects		
Algoma, WI – WWTP Operations Needs Review (ONR)/Facility Plan	Delafield-Hartland WPCC, WI – Biological Phosphorus Removal Study	Monroe, WI – Review of WWTP Facilities Planning
Ashland, WI – Wastewater Master Planning	Edgar, WI – Wastewater Treatment Planning	Mount Horeb, WI – WWTP Headworks and BNR Planning
Beloit, WI – Wastewater Facilities Planning	Fontana-Walworth WPCC, WI – Facilities Planning	Portage, WI – WWTP Facilities Planning
Black River Falls, WI – Wastewater Facilities Planning	Hustisford, WI – Facilities Plan Amendment Preparation	Rib Mountain Metro. Sewerage District, WI – Facility Planning
Bristol, WI – Wastewater Facilities Planning	Janesville, WI – 2017 Collection System Master Plan	Salem Lakes, WI – Master Plan Update
Brooklyn, WI – WWTF Design and Water Quality Trading Plan	Lake Mills, WI – WWTP Facilities Planning	Stoughton, WI – Long-Range Strategic Planning
Brooklyn, WI – WWTF Compliance Alternative Plan	Madison Metro. Sewerage District, WI – Liquid Processing Facilities Plan	Waukesha, WI – Wastewater Facilities Planning
Chippewa Falls, WI – WWTP Capital Improvement Plan	Marathon, WI – WWTF Facilities Planning	Waupaca, WI – WWTP Facilities Plan
Chippewa Falls, WI – WWTP Solids Planning	Marshfield, WI – WWTP Facilities Plan	Waupun, WI – Phase I and II Facilities Planning
Dane County, WI – Manure Management Facilities Plan	Merrill, WI – WWTP Facilities Plan	Whitewater, WI – WWTP Planning

Included on the following pages are a few project examples that describe comprehensive planning studies and UV disinfection projects for several of our clients. While these projects are much broader and more comprehensive than the current projects this proposal addresses, the goal of these examples is to show our significant engineering experience on complex projects for communities similar to the City of Sheboygan.

Madison Metropolitan Sewerage District – Madison, WI	
Reference	Lisa Coleman, Director of Engineering, 608-222-1201
Role of Proposed Team Members	Randy Wirtz – Project Manager Ryan Yentz – Current Project Engineer / Assistant Project Manager on planning/design projects
Project Relevance	• Long-term capacity evaluation and facilities planning. • Capital project included new UV disinfection design to maximize competitiveness by designing around multiple UV disinfection manufacturers within the existing facility footprint. • Detailed hydraulic modeling analysis of normal and peak flows led to informed decision-making for long-term planning.

We have been involved in nearly all MMSD's master and facilities planning efforts over the past 15+ years, including:

- *2009 50-Year Master Plan (2010-2060)*
- *2014 Energy Roadmap Plan*
- *2016 Liquid Process Facilities Plan*
- *2020 Asset Management Plan*
- *2022 Energy Master Plan*
- *2023 Collection Systems Facilities Plan*
- *2024 Heat and Power Facilities Plan*
- *2025 Biosolids Facilities Plan*

Nine Springs Wastewater Treatment Plant – MMSD.

Randy Wirtz served as our Project Manager for all the plant-related projects as well as the design projects that flowed out of the planning efforts. Ryan is serving as the Assistant Project Manager and Lead Process Engineer for the current *Biosolids Facilities Plan*, which includes planning for all solids management facilities at the plant through the design year of 2050.

As part of the larger facilities planning project, we evaluated replacement alternatives for the existing 100-MGD UV disinfection facility. MMSD has utilized UV disinfection since the 1980s and replaced its original system with a second UV system in the mid-1990s. The second UV system operated successfully, and in 2016, we were selected to conduct alternative evaluations for replacement of the system. During the planning phase, we evaluated UV, chlorination/dechlorination, PAA, ozone, and high-rate disinfection utilizing combined systems to reduce contact time requirements.

Based on monetary and non-monetary comparisons, we recommended replacement of the system with an inclined UV system from Trojan or Wedeco. The Wedeco system would only require minor modification of the existing channels, whereas the Trojan system would require lowering of the channels by approximately 1 foot to accommodate the longer 1,000-watt bulbs. Both UV manufacturers were specified, and design drawings for both were included in the bid documents to allow MMSD to competitively bid both manufacturers. The Trojan system was selected based on bids received, and the UV system completed startup in April 2021 and has operated successfully since.

New Trojan UV Disinfection System – MMSD.

Fond du Lac Water Treatment and Resource Recovery Facility Engineering Services – Fond du Lac, WI	
Reference	Cody Schoepke, Superintendent, 920-322-3662
Role of Proposed Team Members	Ryan Yentz – Current Project Manager for planning, design, construction projects Randy Wirtz – Overall Quality Control / Project Manager for UV disinfection project
Project Relevance	• WWTP planning, including UV disinfection • Peak design flow = 100 MGD • Reuse of existing structure for installation maximized City's budget • Long-term planning efforts examined all processes at the plant

We have provided engineering consulting services to the City of Fond du Lac the last 40+ years. Our initial efforts included plan development, design, and construction-related services for improvements – totaling more than $63 million – to renovate all areas of the plant, including replacing pure oxygen activated sludge with an air activated system, installing ultraviolet (UV) effluent disinfection, adding temperature-phased anaerobic digestion (TPAD) with centrifuge dewatering, and installing cogeneration and co-digestion facilities. We designed the sidestream deammonification process – the first in Wisconsin, the second such facility in the Midwest, and the first deammonification system in the United States – to use the Paques Anammox process (licensed by Ovivo).

The average-daily design flow for the facility is 9.84 MGD, but peak-hourly flows of more than 60 MGD can be handled. The plant is an advanced secondary activated sludge facility with primary clarification, single-stage nitrification, denitrification, separate storm flow (excess flow) clarification, and biological phosphorus removal. Effluent UV disinfection was designed to handle biologically-treated forward flows up to 34 MGD, as well as blended excess flows (primary treatment of wet-weather events) up to approximately 68 MGD. The facilities are designed to allow future expansion of the system to approximately 100 MGD. One of the existing UNOX high purity oxygen aeration basins was converted into a subgrade building to house the new UV equipment.

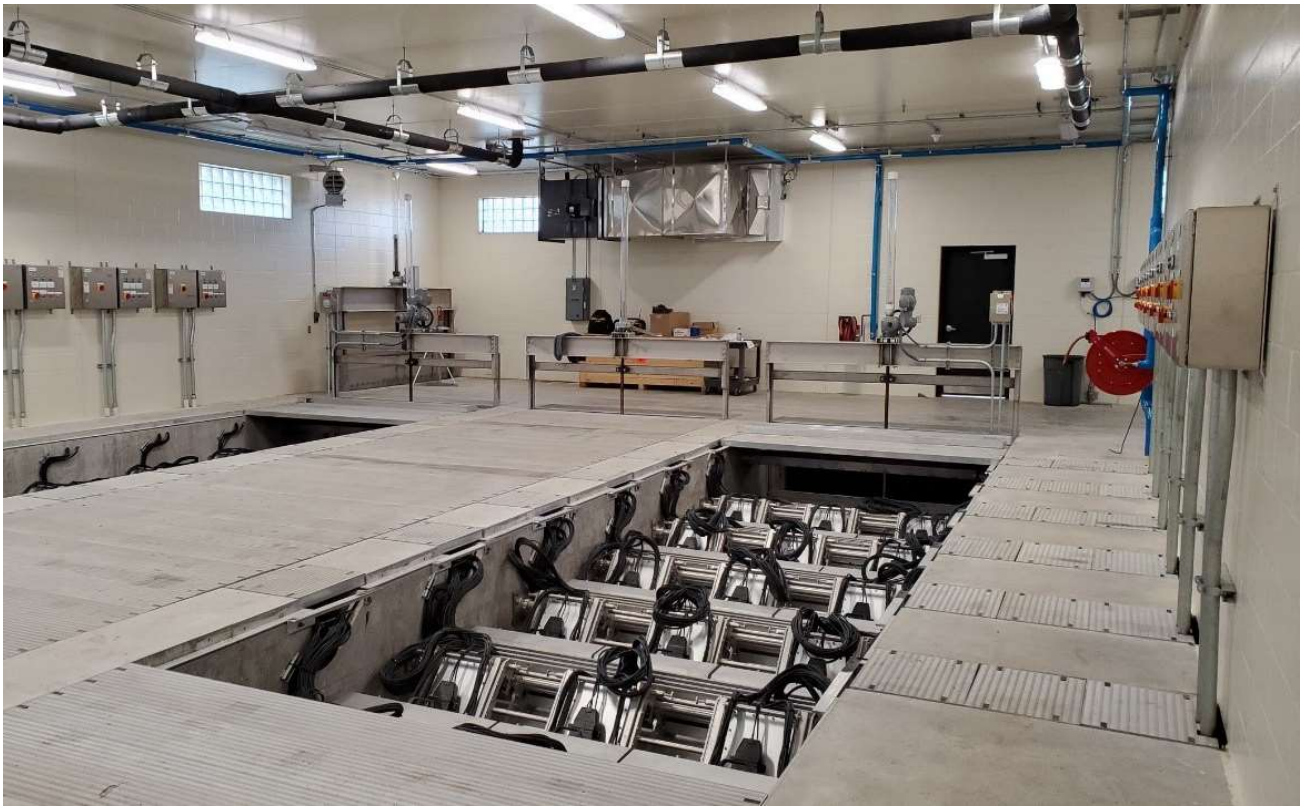
Trojan 4000 UV Disinfection System – Fond du Lac WTRRF.

Davenport Water Pollution Control Plant UV Disinfection Design and Digestion, Biogas, and Struvite Control Facilities Plan – Davenport, IA	
Reference	Brian Schadt, City Engineer, 563-326-7923
Role of Proposed Team Members	Ryan Yentz – Project Manager / Project Engineer since 2016
Project Relevance	• Included UV pilot testing and significant collimated beam testing to properly size the UV system • Peak Design Flow = 55 MGD • Flexible design allowed for parallel bidding of two manufacturers • Excess hydraulic capacity above normal treatment capacity for wet-weather events

We designed a UV disinfection system for the City of Davenport Water Pollution Control Plant (WPCP) to meet new *E. coli* limits. The WPCP currently treats a maximum of 55 MGD through secondary clarification and blends primary clarification effluent flows exceeding 55 MGD up to 75 MGD. We worked closely with the City as they conducted pilot testing of the UV disinfection equipment and assisted the City with permit negotiations relating to the disinfection limit. The UV system is housed in a new building located above the existing 96-inch plant effluent pipe and is designed to disinfect the secondary effluent. Furthermore, the system has a hydraulic capacity of 75 MGD, which will allow blended effluent to be disinfected during wet-weather events.

As part of design, two UV manufacturers, Wedeco and Trojan, were specified and the building was designed to easily accommodate either system, allowing the City to competitively bid the project in May 2020. The project included the installation of a Wedeco UV disinfection system and was substantially complete in December 2021. The UV disinfection system has been in use to meet limits since April 2022.

In addition to the UV disinfection design and CIP, Ryan Yentz has been continuously serving the City of Davenport on WWTP and collection system planning, design, and construction since he started at our firm in 2016. His dedication to the City is a great example of our firm's long-term commitment to our clients' satisfaction and success.



Wedeco UV Disinfection System – Davenport WPCP.

Fox Metropolitan Water Reclamation District (FMWRD) – Oswego, IL	
Reference	Karen Clementi, District Manager, 630-892-4378
Role of Proposed Team Members	Ryan Yentz – Project Engineer Randy Wirtz – Overall Quality Control Nick Bartolerio – Process Modeling and Process Engineer
Project Relevance	• Plant capacity study examines multiple no- or low-cost alternatives to find a suitable solution that best serves the needs of the community • UV disinfection and sodium hypochlorite systems compared on both monetary and non-monetary bases.

The District operates two WWTPs, the South Plant and the North Plant. The current combined annual average flow to the North and South Plants is approximately 35.6 MGD, and the average dry-weather flow is approximately 27.5 MGD.

In 2025, we completed a capacity study examining the existing unit processes at the District's WWTPs. The study examined future flows and loadings to the WWTP, evaluated low or no-cost alternatives to optimize the existing treatment facilities, and assisted FMWRD with long-term planning for future expansions of their South Plant necessary to accommodate the future flows and loadings. An extensive BioWIN model was developed and calibrated based on a year-long historical dataset. Using the calibrated model, the simulated effluent quality of the model matched the measured effluent concentrations during the calibration and validation periods.

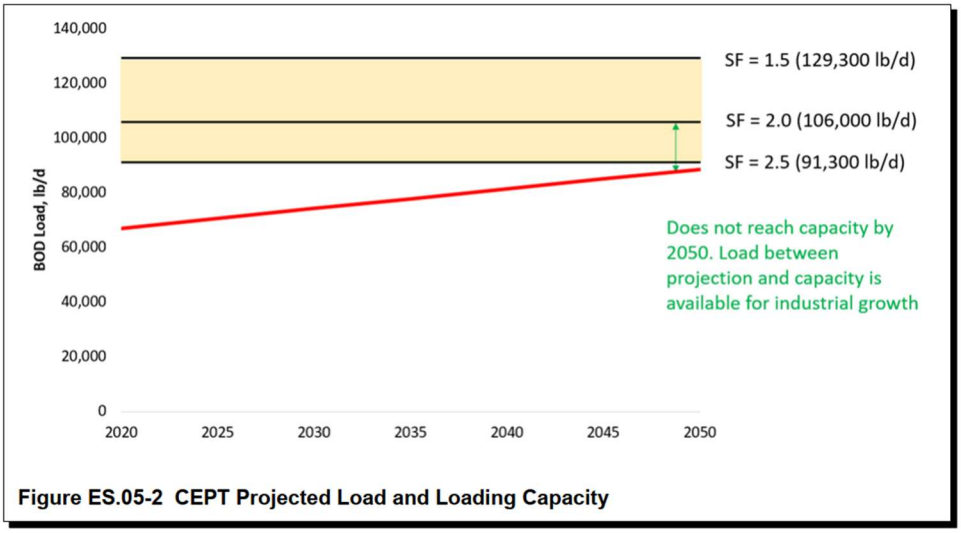


Figure ES.05-2 CEPT Projected Load and Loading Capacity

Illustration of spare plant capacity using CEPT; results from BioWIN – Fox Metropolitan Water Reclamation District.

Following development of the model, we assessed the loading capacity of the WWTPs, finding the North Plant to be operating at 74 to 103 percent capacity and the South Plant to be operating at 70 to 100 percent capacity. After exploring multiple preliminary alternatives for a detailed evaluation of treatment capacity expansion, bioaugmentation and chemically enhanced primary treatment (CEPT) were ultimately shortlisted. CEPT was selected as the chosen alternative, due to the higher additional treatment capacity, struvite mitigation, operational flexibility, and synergy with an ongoing renewable natural gas (RNG) project through generation of additional biogas (greater than a 25 percent increase anticipated). We take great pride in exploring all possible options with our clients, giving them a full picture of monetary and non-monetary considerations to select an alternative that works best for the community. The selected solution will provide a sewer service area of more than 300,000 residents with approximately 20 percent reserve organic loading capacity beyond the projected 2050 influent loads to accommodate industrial growth, new sewer service areas, or other unforeseen growth.

Also in 2025, FMWRD hired us to complete a UV Disinfection feasibility study. The study's scope included oversight of the District's full-scale peracetic acid (PAA) disinfection pilot study and development of alternatives to replace the existing sodium hypochlorite disinfection facilities at the District's North Plant. A UV sampling program was organized to perform collimated beam testing on the WWTP effluent following completion of the PAA pilot. While the pilot showed PAA to be unsuccessful at disinfection at the North Plant, keeping the existing sodium hypochlorite system or implementing UV disinfection were further examined as proposed alternatives. This project is just one of many examples of UV disinfection experience our firm has gained over the years.

River Falls Wastewater Treatment Facility Dewatering and Dryer Addition – River Falls, WI	
Reference	Kevin Westhuis, Utility Director, 715-426-3442
Role of Proposed Team Members	Ryan Yentz – Project Manager Randy Wirtz – Overall Quality Control
Project Relevance	• Activated sludge capacity study and plan for expansion within the existing footprint • Detailed study of WWTP processes flows and loadings • Working with various manufacturers to deliver high-quality design and meet operator needs • Evidence of our project team's management expertise • Plant Expansion Study for potential industry

We have served as the wastewater engineering consultant for the City of River Falls since 2018 when we completed our first evaluation of the WWTF's aeration system. In 2019, we completed a biosolids study. In 2022, we were retained to complete the design of a new dewatering and drying facility for the City.

As staffing changed between the 2019 study and the 2022 design phases, WWTF staff desired to maintain some of the existing solids processing equipment to provide improved operational flexibility. This resulted in the need for a new building rather than retrofitting the existing building, which was accommodated in our design process. The result was an improved construction schedule while providing the operators with more options to manage biosolids at the plant. We pride ourselves on taking operator's preferences into our design projects, and the River Falls example is indicative of our attention to operations and maintenance requirements for all our projects.

Dewatering and drying building structure – River Falls WWTF.

The drying project includes pumping thickened sludge from the DAFT building to the new dewatering and drying building. Screw press and centrifuge dewatering technologies were evaluated in the early phases of design. Ultimately, a screw press was selected, as manufactured by Schwing Bioset, due to the lower capital and operational costs as well as its proximity to River Falls, being located in Somerset, Wisconsin. Thickened sludge samples were sent to Schwing to confirm expected dewaterability, as this is critical to sizing the drying equipment.

Design included the evaluation of three indirect dryer manufacturers (paddle and screw type) due to operator's preference based on the results of the 2019 study. A BCR Environmental screw dryer was preselected for design based on capital cost, space requirements, energy use, and reference checks. Dried product storage included a silo sized for one month of storage at future conditions. Additional storage is planned offsite at the City's composting site for community pickup.

"Strand and Ryan are a pleasure to work with."

– Kevin Westhuis, Utility Director, City of River Falls

City of RIVER FALLS

Resumes

Project Manager

Ryan M. Yentz, P.E.

Quality Control Engineer

Randall A. Wirtz, Ph.D., P.E., ENV SP, Senior Associate, Director of Practice-Wastewater

UV Disinfection Lead Process Engineer

Jack R. Karnes, E.I.T.

Plant Expansion Process Engineer

Nicholas A. Bartolerio, P.E.

Electrical Engineer

Richard G. Thimm, P.E.

Structural Engineer

Scott G. Herkert, P.E., Senior Associate

HVAC/Mechanical Engineer

Adam D. Gander, P.E.

Ryan M. Yentz, P.E.

AREAS OF EXPERTISE

- Biosolids Drying
- Municipal Wastewater Treatment
- Municipal WWTP Agency Requirements
- Construction Project Management
- Collection System Rehabilitation
- Conveyance System Analysis

PROFESSIONAL EXPERIENCE

Biosolids Drying experience includes Project Management of projects including drying equipment in River Falls, Fond du Lac, New Holstein, Waukesha, and Portage, Wisconsin. Ryan has been the project manager for multiple dryer design and construction projects and has become the firm's expert in biosolids drying.

Municipal Wastewater Treatment experience includes plant hydraulic analysis, process and instrumentation drawing (P&ID) development, and secondary treatment design in Salem Lakes, Wisconsin; biosolids planning evaluations in River Falls, New Holstein, and Fond du Lac, Wisconsin; and plan development and design of aeration improvements in River Falls, Wisconsin.

Sanitary Sewer Collection System Assessment and Rehabilitation experience includes manhole assessment and rehabilitation, sanitary sewer rehabilitation, CIPP lining, and force main rehabilitation analysis. Ryan completed assessment and/or rehabilitation projects in Fond du Lac, Merrill, Wausau, Wisconsin Rapids, Wisconsin; Cedar Rapids, Davenport, Iowa; and Deerfield, Sandwich, Illinois.

Wastewater Conveyance System Analysis experience includes inflow and infiltration (I/I) studies, sanitary sewer evaluation surveys, capacity studies. Served as the Project Engineer for wastewater conveyance system analysis projects in Edgar, Manitowoc, Merrill, Onalaska, Wisconsin; Davenport, Iowa; Sycamore, Illinois.

Construction Project Management experience includes construction management and resident project representative (RPR) services for projects in Fond du Lac, River Falls, Wisconsin; Cedar Rapids, Davenport, Iowa; Deerfield, Illinois.

Municipal Wastewater Treatment Agency Requirements experience includes facilitation of Wisconsin Pollutant Discharge Elimination System (WPDES) permit and variance applications, and Capacity, Management, Operation, and Maintenance (CMOM) program development. Served as the Project Engineer for projects in Lake Mills, Manitowoc, Middleton, Mount Horeb, Stoughton, Wisconsin and Sycamore, Illinois.

Airport Construction Observation experience at the Dane County Regional Airport includes:

- **Low Visibility Improvements** – Installation of Category II Approach Light System, including surface lights within runway and runway intersection. The project also included new runway painting and an emergency catch system for military aircraft.
- **Glycol Management System** – Construction of a new management system for deicing fluid used during winter operations. The system allows the facility to sample, test, and contain used deicing fluid on-site prior to disposal.

PRESENTATIONS

- (2019, October 8-10). *CIPP Lining: Tips, Tricks, and Lessons Learned for the Collection System Owner.* Presented at the 2019 WWOA Annual Conference.
- (2020, October 20-22). *Evaluation of Aerator Replacement vs Installation of Fine Bubble Aeration at an Oxidation Ditch.* Presented at the 2020 WWOA Annual Conference.
- (2020, October 20-22). *Pumping Station and Force Main Rehabilitation vs Replacement Across the Wisconsin River.* Presented at the 2020 WWOA Annual Conference.
- (2021, October 5-7). *Flattening the Curve: A Comprehensive Look at I/I.* Presented at the 2021 WWOA Annual Conference

YEARS OF EXPERIENCE

9

YEARS WITH FIRM

9

EDUCATION

B.S. Civil Engineering – University of Wisconsin-Madison, 2016

M.E. Environmental Engineering – University of Wisconsin-Madison, 2019

REGISTRATION

Professional Engineer in Wisconsin

PACP/MACP/LACP Certified

Ryan M. Yentz

- (2022, May 18 and October 6). *Lessons Learned from Biosolids Drying*. Presented at 2022 CSWEA 95th Annual Meeting and 2022 WWOA Annual Conference.
- (2022, October 5). *Why did the Sewer Cross the Road? River? Or Railroad? A Look at Maintaining Infrastructure in Difficult Locations.* Presented at the 2022 WWOA Annual Conference.
- (2023, August 31). River Falls WWTF - *Biosolids Dewatering and Dryer Addition.* Presented at the WWOA West Central Regional Meeting.

PROFESSIONAL AFFILIATIONS

- Central States Water Environment Association
- National Association of Sewer Service Companies
- Water Environmental Federation
- Wisconsin Wastewater Operators Association

Randall A. Wirtz, Ph.D, P.E., ENV SP

Senior Associate/Director of Practice-Wastewater

AREAS OF EXPERTISE

- Biological Treatment
- Solids Management / Stabilization
- Chemical / Physical Treatment
- Nutrient Removal
- Energy Recovery and Efficiency
- Disinfection
- Digester Gas Utilization
- Industrial Waste Treatment
- Odor Control

PROFESSIONAL EXPERIENCE

Municipal Wastewater Treatment experience includes planning and design of biological treatment facilities, odor control facilities, chemical treatment systems, sludge dewatering systems, biosolids stabilization facilities, disinfection facilities, and pumping and conveyance facilities. Recent projects are highlighted below.

- **Waterloo, Iowa** – Facilities Plan, Project Manager and Lead Process Engineer
- **Dubuque, Iowa** – WWTP Facilities Planning, Design, and Construction for $70 million Project (significant industrial loadings), Project Manager and Lead Process Engineer
- **Davenport, Iowa** – Facilities Plan, Project Manager and Lead Process Engineer
- **Ames, Iowa** – Biogas and Cogeneration Facilities Planning, Project Manager
- **Cedar Rapids, Iowa** – WWTP Upgrades (ash handling and anaerobic process heating), Project Manager
- **Fond du Lac, Wisconsin** – Sidestream Deammonification Facilities, Project Manager and Lead Process Engineer
- **Madison Metropolitan Sewerage District, Wisconsin** – Our firm's Project Manager for multiple long-term plans, including the current 20-Year Facilities Planning Project, the 50-Year Master Plan, and the Net Zero Energy Master Plan
- **NEW Water, Green Bay, Wisconsin** – DPF Filter Backwash Study, Project Manager and Lead Technical Engineer

Industrial Wastewater Treatment experience includes anaerobic and aerobic biological treatment processes, pH control, equalization, flotation/clarification, chemical processes, residuals/solids stabilization and management, odor control, and permitting assistance. Industrial wastewater experience includes dairy and cheese processing, meat processing, vegetable processing, snack food production, bakeries, dessert and candy processing, pharmaceutical, and chemical production.

Water Treatment experience includes design of pumping facilities, granular media filtration units, chlorination, fluoridation, and sludge dewatering and handling facilities.

PRESENTATIONS
(Partial Listing)

- (2023, April 14) *An Operability Review of Low-Level Phosphorus Implementation Over 30 Years of Implementation* with Kelly Hajek and Mark Rudolph. Accepted for presentation at the Texas Water 2023 Annual Conference.
- (2022, Jun 6) *Biological Nutrient Removal (BNR) Design and Comparison – Case Studies.* Presented at the 2022 Iowa Water Environment Association Annual Conference.
- (2022, May 18) *Intensification Processes for Nutrient Removal Upgrades – Comparison at Midwest WWTPs*. Presented at the 2022 Central States Water Environment Association Annual Conference.
- (2022, April 6) *Sidestream Deammonification for Low-Energy Nitrogen Removal and Biological Phosphorus Removal (BPR) Enhancement* with Kelly Hajek. Presented at the Texas Water 2022 Annual Conference.
- (2022, April 6) *Intensification Processes for Nutrient Removal Upgrades – Doing More With What You Have* with Kelly Hajek. Presented at the Texas Water 2022 Annual Conference.
- (2020, November 19) *Waterloo Biosolids Upgrades: Eliminating Bottlenecks and Improving Operations and Reliability*. Presented at the 2020 Iowa Water Environment Association Annual Conference.

YEARS OF EXPERIENCE
31

YEARS WITH FIRM
31

EDUCATION
Ph.D. Civil/Environmental Engineering – Iowa State University, Ames, 1994

M.S. Civil/Environmental Engineering – Iowa State University, Ames, 1992

B.S. Civil/Environmental Engineering – University of Wisconsin–Platteville, 1990

REGISTRATION
Professional Engineer in Wisconsin, Ohio, Missouri, Iowa, Illinois, and Arizona

Institute for Sustainable Infrastructure Envision Sustainability Professional

AWARDS
2016 WEF Schroepfer Innovative Facility Design Medal for the Dubuque Water & Resource Recovery Center Upgrade

Randall A. Wirtz, Ph.D, P.E., ENV SP

Senior Associate/Director of Practice-Wastewater

- (2019, May 15) *Fond du Lac's Side Stream Deammonification Project: Design, Startup, and Lessons Learned.* Presented at the 2019 Central States Water Environment Association Annual Conference.
- (2018, June 7) *City of Waterloo, Iowa Wastewater Facilities Plan and Nutrient Reduction Study.* Presented at the 2018 Iowa Water Environment Association Annual Conference.
- (2018, May 15) *Nutrient Harvesting or Sequestration: The Best Fit for the Fond du Lac WTRRF*. Presented at the 2018 Central States Water Environment Association Annual Conference.
- (2017, June 8) *Cost-Effective Energy Recovery Via Renewable CNG Using Digester Gas RIN Trading*. Presented at the 2017 Iowa Water Environment Association Annual Conference.
- (2017, June 8) *Cost-Effective Energy Recovery Via Renewable CNG Using Digester Gas RIN Trading*. Presented at the 2017 Iowa Water Environment Association Annual Conference.
- (2016, May 17-20) *Addressing Nonpoint Nutrient Loadings through Nutrient Concentration Systems – The Next Generation of Manure Management in Dane County with Rachel Lee.* Presented at the 89th CSWEA Annual Conference.
- (2015, June) *Codigestion Evaluation and Implementation.* Presented at the 97th IAWEA Annual Conference.
- (2015, June) *Dubuque's Nutrient Reduction Strategy – Year 2 Update.* Presented at the 97th IAWEA Annual Conference.
- (2015, May) *Codigestion Evaluation and Implementation – Case Studies.* Presented at the 88th CSWEA Annual Conference.
- (2014, June) *Dubuque's Nutrient Reduction Strategy – Wastewater Treatment & Watershed Approaches.* Presented at the 96th IAWEA Annual Conference.
- (2014, May) *Estimating Codigestion/Cogeneration Capacity at Your WWTP*. Presented at the 87th CSWEA Annual Conference.
- (2014, May) *The First Step on the Roadmap to Net Zero Energy with Schroedel, et al.* Presented at the 87th CSWEA Annual Conference.
- (2013, June) *Dubuque's Anaerobic Digestion and Cogeneration Facilities.* Presented at the 95th IAWEA Annual Conference.
- (2013, June) *Moving Towards Net Zero Energy at WWTPs.* Presented at the 95th IAWEA Annual Conference.
- (2013, May) *Enhancing the Energy Cycle – Digestion, Codigestion, and Biogas.* Presented at the 86th CSWEA Annual Conference.
- (2012, June) *The Wisconsin/Illinois Phosphorus Experience – Regulations, Limits, Treatment, and Implementation.* Presented at the 94th IAWEA Annual Conference.
- (2012, May) *Plantwide Energy Reduction Evaluations at the Thorn Creek Basin Sanitary District.* Presented at the 85th CSWEA Annual Conference.
- (2010, June) *Will It be Under a Billion? The Capital and Long-Term Costs of Complying with Proposed Phosphorus Criteria.* Presented at the 92nd IAWEA Annual Conference.

COURSES

- (2002, 2001, 2000, and 1999) Modern Concepts in Anaerobic Digestion, *Contemporary Wastewater Treatment Plant Design and Operation*, UW-Madison Extension Course, Madison, Wisconsin.
- Wirtz, R., and Dague, R. R. (1997) Laboratory studies on enhancement of granulation in the anaerobic sequencing batch reactor (Vol 36., No 4.). *Water science & technology*. International Water Association.

PROFESSIONAL AFFILIATIONS

- Water Environmental Association of Texas
- Central States Water Environment Association
- Iowa Water Environment Association
- Water Environment Federation
- Wisconsin Wastewater Operators Association

Jack R. Karnes, E.I.T.

AREAS OF EXPERTISE

- Municipal Wastewater Treatment
- Construction Administration
- Financial Assistance

PROFESSIONAL EXPERIENCE

Municipal Wastewater Treatment experience includes:

- Served as Project Engineer in De Pere, Wisconsin for plant hydraulic analysis, process and instrumentation drawing (P&ID) development, and plan development and design of headworks improvements.
- Served as Project Engineer in Iowa City, Iowa for plant hydraulic analysis, P&ID development, and plan development and design of sludge conditioning improvements and hauled waste receiving.

Sanitary Sewer Collection System Assessment and Rehabilitation experience includes manhole assessment and rehabilitation. Served as Project Engineer in Fond du Lac, Wisconsin.

Wastewater Conveyance System Analysis experience includes inflow and infiltration (I/I) studies, capacity studies. Served as the Project Engineer for wastewater conveyance system analysis projects in Viroqua and Greenfield, Wisconsin.

Construction Administration experience includes construction administration services for projects in New Glarus and Delafield, Wisconsin; and Deerfield, Illinois.

Facilities Planning experience includes process evaluation, alternatives analysis, flow and loading projections, and fiscal impact analysis.

Financial Assistance experience includes state revolving fund programs in Wisconsin and Iowa.

Wastewater User Rate Development experience includes rate studies for Bristol and Marshfield, Wisconsin.

YEARS OF EXPERIENCE

3

YEARS WITH FIRM

3

EDUCATION

B.S. Civil Engineering – University of Wisconsin-Madison, 2022

REGISTRATION

Engineer-in-Training

Nicholas A. Bartolerio, P.E.

AREAS OF EXPERTISE

- Wastewater Treatment Plant (WWTP) Design
- Wastewater Treatment Process Modeling
- Biological Treatment Processes

PROFESSIONAL EXPERIENCE

Municipal Wastewater Treatment Process Planning and Design experience includes preliminary treatment, biological nutrient removal, tertiary treatment, and biosolids stabilization, and management facilities. Select projects:

- **Madison Metropolitan Sewerage District (MMSD) Liquid Processing Facilities Plan** – Lead hydraulic process engineer and modeler for 180 MGD WWTP facility plan.
- **Greater Peoria Sanitary District, Illinois Nitrification and Biosolids Dewatering Project Plan** – Lead liquid treatment process engineer for 154 MGD WWTP project plan.
- **Waterloo, Iowa Wastewater Facilities Plan** – Lead process engineer for 79 MGD WWTP facilities plan.
- **Beloit, Wisconsin Wastewater Facilities Plan** – Lead Process Engineer for 28 MGD WWTP facilities plan.
- **Bartlett, Illinois WWTP Improvements** – Lead designer for S2EBPR activated sludge improvements.
- **Moline, Illinois South Slope WWTF Project Plan and Design** – Lead Process Engineer for S2EBPR activated sludge and primary sludge fermentation system.
- **Huntington Sanitary Board, West Virginia WWTP Improvements** – Lead Biological Treatment Process Engineer.
- **Regional Water Resource Agency, Kentucky David Hawes Plant Design** – Lead Biological Treatment Process Engineer.
- **Delafield-Hartland WPCC, Wisconsin WWTP Improvements** – Lead Biological Treatment Process Engineer for S2EBPR activated sludge and primary sludge fermentation system.
- **Ames, Iowa Nutrient Reduction Improvements** – Lead Biological Treatment Process Engineer for low dissolved oxygen activated sludge system.
- **Fox Metro Water Reclamation District, Illinois Loading Capacity Study** – Lead Process Engineer.
- **Cedar Falls, Iowa, WWTP Facilities Plan** – Lead Process Engineer.

Wastewater Treatment Process Modeling experience includes the development and calibration of full treatment plant models incorporating wide variety of conventional and innovative treatment processes. Completed Advanced Training course held by Biowin developer Envirosim Associates, Ltd. Process modeling experience includes the following projects:

- Louisville MSD, Kentucky Hite Creek – WTC BNR Design
- Morgantown, West Virginia – Membrane Bioreactor Design
- Dubuque, Iowa – Nutrient Reduction Study
- Waterloo, Iowa – Nutrient Reduction Study
- Naperville, Illinois – BNR Modeling
- Greater Peoria Sanitary District, Illinois – Nitrification and Biosolids Dewatering Project Plan
- Bartlett, Illinois – Activated Sludge Design
- Minooka, Illinois – WWTP Facilities Plan
- Barrington, Illinois – WWTP Facilities Plan
- Ashland, Kentucky – WWTP Facilities Plan
- Joliet, Illinois – Westside WWTP Facilities Plan
- New Lenox, Illinois – WWTP Facilities Plan
- Thorn Creek Basin Sanitary District, Illinois WWTP – Phosphorus Planning Study
- Moline, Illinois – South Slope WWTF Project Plan
- Regional Water Resource Agency, Kentucky – Activated Sludge Design
- Huntington Sanitary Board, West Virginia – Activated sludge design
- Delafield-Hartland, Wisconsin – S2EBPR and primary sludge fermentation design
- Ames, IA – Nutrient Removal design

YEARS OF EXPERIENCE

13

YEARS WITH FIRM

13

EDUCATION

M.S. Environmental Engineering – University of Illinois at Urbana-Champaign, 2011

B.S. Civil/Environmental Engineering – University of Wisconsin-Madison, 2009

REGISTRATION

Professional Engineer in Wisconsin, Iowa, and Illinois

Nicholas A. Bartolerio, P.E.

PRESENTATIONS
(Partial Listing)

- *Village of Bartlett Wastewater Improvements Simplify Operations While Providing Biological Nutrient Removal Flexibility*, presented at the IWEA Nutrient Removal and Reuse Workshop, September 2024
- *Implementation of Primary Sludge and Biomass Fermentation for Improved Biological Phosphorus Removal at the Delafield-Hartland Wastewater Treatment Facility*, presented at the CSWEA 97th Annual Meeting, May 2024
- *City of Ames' Innovative BNR Conversion Plan for Nutrient Removal*, presented at the Iowa Water Environment Association Annual Conference, June 2023
- *Intensify! Membrane Bioreactors Expand Capacity*, presented at the 94th CSWEA Annual Meeting, May 2021
- *Simplification of Treatment Processes and Equipment Replacement Results in Energy Efficient Biological Nutrient Removal* at the Bensenville, IL WWTF, poster presented at the 2019 WEF Nutrient Symposium, July 2019
- *Evaluating Lagoon Upgrades for Increasingly Stringent Effluent Limits*, presented at the CSWEA 92nd Annual Meeting, May 2019
- *Low Level Phosphorus Pilot Studies at the Fond du Lac WTRRF*, presented at the IAWA Technical Committee Meeting, January 2019
- *City of Waterloo, Iowa Wastewater Facilities Plan and Nutrient Reduction Study*, presented at the Iowa Water Environment Association 97th Annual Conference, June 2018
- *Algae-Based Nutrient Removal Pilot Study Supplements Ongoing Nutrient Removal Evaluations at the City of Fond du Lac WPCP*, presented at the 2017 Illinois Wastewater Professionals Conference, April 2017
- *Deammonification for Cost Effective Nitrogen Removal*, presented at the 89th CSWEA Annual Meeting, May 2016
- *Navigating the Multitude of Nutrient Regulation Compliance Options*, presented at WATERCON 2016, March 2016
- *Push it to the Limit: Low Level Phosphorus Pilot Studies at the Fond du Lac WPCP*, presented at the Wisconsin Wastewater Operator's Association Annual Conference, October 2016

PROFESSIONAL AFFILIATIONS

- Central States Water Environment Association
- Water Environment Federation
- Illinois Water Environment Association
- Iowa Water Environment Association

Richard G. Thimm, P.E.

AREAS OF EXPERTISE

- Electrical Power Distribution
- Standby Emergency Power Systems
- Lighting
- Process Controls
- Lighting Controls
- Computer-Based Control Systems (SCADA)

PROFESSIONAL EXPERIENCE

Municipal Electrical System experience includes design of water, wastewater, and municipal building facility medium-voltage and low-voltage power distribution, process controls, Emergency and Standby Power Systems design, communication systems (ethernet, fiber-optic, radio), building lighting and general power, process instrumentation, PLC-based instrumentation and controls (SCADA), short circuit calculations, and voltage drop analysis.

Specific design projects include:

- City of Milwaukee Zeidler Building Second Floor Health Lab HVAC Upgrades, Milwaukee, Wisconsin
- Ashippun WWTF, Ashippun, Wisconsin
- Bargersville Utilities Wells 10, 11, 12, and Raw Water Main Generator and Well Field Modifications, Bargersville, Indiana
- Bartlett WWTP Influent Screening Project, Bartlett, Illinois
- Brazoria Elevated and Ground Storage Tank Rehabilitation, Brazoria, Texas
- Brenham Munz Lift Station, Brenham, Texas
- Brenham Ralston Creek Lift Station, Brenham, Texas
- Brookfield Sanitary District Water System Study Update, Town of Brookfield, Wisconsin
- Brooklyn WWTF, Brooklyn, Wisconsin
- Carrollton Utilities WTP Ion Exchange System Addition, Carrollton, Kentucky
- Cedar Rapids Water Pollution Control Facility MCC-2 Replacement, Cedar Rapids, Iowa
- Central Lake County JAWA Clearwell Underdrain Dewatering System, Lake Bluff, Illinois
- Central Lake County JAWA Fluoride Storage and Feed Room Upgrades, Lake Bluff, Illinois
- Cedar Rapids WWTP MCC-2 Replacement, Cedar Rapids, Iowa
- Clay Township Pump Station 8 Upgrades, Clay Township, Indiana
- Clay Township Lift Station No. 1 VFD Replacement, Clay Township, Indiana
- Clay Township Lift Station No. 2 Upgrades, Clay Township, Indiana
- Columbus WWTP, Columbus, Indiana
- Columbus City Utilities Wells 18 and 19, Columbus, Indiana
- Columbus City Utilities Wells 20-23, Columbus, Indiana
- Columbus City Utilities Deaver Road Booster Station, Columbus, Indiana
- Cudahy Water Utility WTP Sodium Hypochlorite Conversion, Cudahy, Wisconsin
- Dayton Tram Road Booster Pump Station, Dayton, Texas
- Decatur WTP Phase II Upgrades, Decatur, Illinois
- Delafield-Hartland WPCP Biological Phosphorus Removal, Delafield, Wisconsin
- Dubuque WPCP, Dubuque, Iowa
- Dubuque Bee Branch Stormwater Pumping Station, Dubuque, Iowa
- Catfish Creek Lift Station Standby Generator Addition, Dubuque, Iowa
- Fond du Lac Well 26, Fond du Lac, Wisconsin
- Fond du Lac Well 27, Fond du Lac, Wisconsin
- Fredonia WWTP UV Disinfection and Sludge Storage Tank No. 2 Addition, Fredonia, Wisconsin
- Fredonia WWTP Grit System Upgrades, Fredonia, Wisconsin
- Glenbard Wastewater Authority 2020 Electrical Service Distribution System Rehabilitation and Upgrades, Glen Ellyn, Illinois
- Grandview Lake WWTP, Grandview Lake, Indiana

YEARS OF EXPERIENCE

19

YEARS WITH FIRM

19

EDUCATION

B.S. Electrical Engineering – University of Wisconsin-Madison, 2006

REGISTRATION

Professional Engineer in Wisconsin and Texas

Richard G. Thimm, P.E.

- Grayslake Water System SCADA System Phase I Improvements, Grayslake, Illinois
- Grayslake Emergency Backup Well Facility, Grayslake, Illinois
- Grayslake Booster Pump Starter Upgrades Phase I and II, Grayslake, Illinois
- Grayslake Cornerstone Parkway Delivery Structure, Metering Station, and Elevated Tank, Grayslake, Illinois
- Jackson WWTP Odor Control System, Jackson, Wisconsin
- Kankakee River Metropolitan Agency WWTP – Phase IA Modifications, Kankakee, Illinois
- Kankakee River Metropolitan Agency WWTP – Phase IB Modifications, Kankakee, Illinois
- Kankakee River Metropolitan Agency WWTP – Phase IC Modifications, Kankakee, Illinois
- Kenosha WTP Membrane Replacement, Kenosha, Wisconsin
- Kettle Moraine Correctional Institution WWTP Secondary Clarifier Addition, Wisconsin Department of Administration, Plymouth, Wisconsin
- La Grange WWTP Upgrades, La Grange, Kentucky
- Lakewood East Sewer Ara Sanitary Pumping Station, Lakewood, Illinois
- Lake Forest WTP Intake Wetwell Algae Screen, Lake Forest, Illinois
- Lake Forest WTP Improvements, Lake Forest, Illinois
- Lake Forest Water Distribution System Monitoring Network, Lake Forest, Illinois
- Lancaster WWTP, Water and SCADA Lift Stations SCADA System, Lancaster, Wisconsin
- Lexington WWTP Electrical Improvements, Lexington, Kentucky
- Madison Metropolitan Sewerage District Pump Stations 6 and 8 Upgrades, Madison, Wisconsin
- Magnolia WWTP Expansion, Magnolia, Texas
- Manitowoc WWTF Improvements, Manitowoc, Wisconsin
- Mendota County Park Pumping Station, Westport, Wisconsin
- Menomonee Falls Water System Well No. 4 Filter Removal and Garage Upgrades, Menomonee Falls, Wisconsin
- Milford Water System SCADA Upgrades, Milford, Ohio
- Moline South Slope WWTP, Moline, Illinois
- Montello WTP Chemical Room Addition, Montello, Wisconsin
- Mount Horeb Water Pollution Control Facility, Mount Horeb, Wisconsin
- Naperville Improvements to Well No. 28 and Well No. 31, Naperville, Illinois
- New Glarus WWTP, New Glarus, Wisconsin
- Niles Water System Master Plan, Niles, Illinois
- North Shore Water Commission Water System Fluoride and Polymer Addition, Glendale, Wisconsin
- North Shore Water Commission Water System Electrical Upgrades, Glendale, Wisconsin
- Onalaska Main Street Stormwater Pump Station, Onalaska, Wisconsin
- Onalaska South Kinney Coulee Road Pumping Station, Onalaska, Wisconsin
- Water System Master Plan, Pewaukee, Wisconsin
- Port Washington Blower and UV Disinfection System Replacement Project, Port Washington, Wisconsin
- Prairie du Sac Well No. 4 Facility Improvements, Prairie du Sac, Wisconsin
- Riverside WTP Clarifier Replacements, Elgin, Illinois
- Salem 2015 WWTP Upgrades, Salem Lakes, Wisconsin
- Salem Sanitary Lift Stations 101, 102, 104, 207, and 211 Upgrades, Salem Lakes, Wisconsin
- Salem Sanitary Phase II Lift Station Rehabilitation and WWTP Improvements, Salem Lakes, Wisconsin
- Salem WWTP Regionalization Improvements, Salem Lakes, Wisconsin
- Salem Valmar and Yaws Lift Stations 226, 227, 228 and SLS201, 203, Salem Lakes, Wisconsin
- Sandwich UV System Addition, Sandwich, Illinois
- Sealy Sika Lift Station, Sealy, Texas
- Sheboygan WWTF Main Electrical Switchgear Replacement, Sheboygan, Wisconsin
- Snook WWTP, Snook Texas

Scott G. Herkert, P.E.
Senior Associate

AREAS OF EXPERTISE

- Evaluation and Remodeling of Existing Buildings
- Project Management on Various Building Projects
- Water Treatment/Wastewater Treatment Facilities
- Corrosion Control and Coatings Specialist
- Structural Design of New and Existing Industrial Facilities
- Construction Observation

PROFESSIONAL EXPERIENCE

Design experience includes a wide variety of structures, such as fire stations, concrete reservoirs, wastewater facilities more than 40 feet deep, multistory process buildings, administration buildings, police stations, recreational facilities, manufacturing facilities, and shore wall construction. Structural design experience includes municipal office buildings, school facilities, and a healthcare facility.

Industrial Manufacturing Facilities Design experience includes modifications and upgrades to existing facilities and design of new additions to facilities, including production, warehouse, and office spaces. Design of food manufacturing process areas meeting USDA requirements. Experience includes design and construction observation of several new 60,000-square-foot plus manufacturing facilities. Design of cooling tunnel building (50-feet-wide by 120-feet-long by 75-feet-tall) and two-story food grade powder production high-hygiene facility.

Project Management experience includes design and construction phases of several remodeling/new police departments, remodeling of safety buildings, new fire stations, remodeling historic city hall, city and new village hall with large meeting areas, public works facilities, park facilities, recreation facility, industrial manufacturing facilities, and many system replacements to municipal buildings.

Field Engineering and Observation experience includes a variety of services on wastewater treatment plants and pumping stations and building projects, including manufacturing facilities, fire stations, police departments, municipal office buildings, schools, and recreation facilities. Experience on above facilities includes shop drawing review; resident project representative services; on-site observations; and review of pay requests, change orders, and other construction-related documents.

Corrosion Control experience includes specifying and field investigations for high-performance coating systems for municipal and industrial applications, including water and wastewater treatment facilities, secondary containment areas, structures, floor coatings, and piping. Oversee company's coatings and corrosion control specifications and field observations for all offices.

Water Storage Facilities experience includes design and inspection services for dozens of water towers, reservoirs, and tanks throughout the Midwest, including:

- West Bend, Wisconsin
- Menomonee Falls, Wisconsin
- Dubuque, Iowa
- Cedar Rapids, Iowa
- Decatur, Illinois
- Rockford, Illinois
- Morgantown, West Virginia
- Fairmont, West Virginia
- Marietta, Ohio

Concrete and Masonry Remediation and Repairs experience includes all types of projects, including pump stations, wastewater tanks, tunnels, historic buildings, reservoirs, industrial facilities, and correctional facilities. This work has included full-depth repairs, partial-depth repairs, surface repairs, gunite spray applications, crack injection, mechanical joint sealants, structural member strengthening, and many other repair procedures in accordance with International Concrete Repair Institute (ICRI) or American Concrete Institute (ACI).

YEARS OF EXPERIENCE
34

YEARS WITH FIRM
34

EDUCATION
B.S. Civil/Structural Engineering – University of Wisconsin-Platteville, 1991

REGISTRATION
Professional Engineer in Wisconsin and Iowa

Adam D. Gander, P.E.

AREAS OF EXPERTISE

- Plumbing Design
- HVAC System Design
- Fire Protection
- Process Piping Design

PROFESSIONAL EXPERIENCE

Experience in the design of plumbing systems, fire protection systems, process piping systems, and HVAC systems for water and wastewater treatment facilities, educational facilities, commercial facilities, and industrial facilities.

Plumbing Systems experience includes design of various plumbing systems for commercial, industrial food processing, water treatment, and wastewater treatment facilities. System design has included plumbing for laboratories, including water purification and acid waste systems.

Fire Protection Systems experience includes design of fire protection systems for water and wastewater treatment facilities, and commercial facilities. Systems designs have included wet- and dry-type systems, as well as above- and below-grade diesel storage tanks.

Process Piping Systems experience includes design of process piping systems for water and wastewater treatment systems, including water reuse systems, above- and below-grade diesel fuel-supply systems.

Boiler and Systems experience includes design of boiler replacements and additions for wastewater treatment, and educational facilities.

Commercial and **Industrial Ventilation** experience includes design of make-up air systems, plant clean-up air systems, process air cooling systems, and engine room and boiler room ventilation systems. Design of HVAC systems and controls for commercial facilities.

Water and **Wastewater Treatment Plant (WWTP) Facilities HVAC** experience includes design of heating and ventilation systems for a variety of water and wastewater treatment facilities. System design includes high-hazard environment ventilation systems, testing, laboratories, and natural gas distribution systems.

LEED® Design experience includes the plumbing and HVAC systems of a LEED® version 3.0 certified facility. Design included development of an energy model, and experience in the online filing and formal registration required to obtain LEED® certification.

Select Projects

- Cedar Rapids WWTP – Cedar Rapids, Iowa
- Deerfield WRF – Deerfield, Illinois
- Mount Morris WWTP – Mount Morris, Illinois
- Moline WWTP – Moline, Illinois
- Fox River Water Reclamation District WRF – South Elgin, Illinois
- Waukesha WWTP – Waukesha, Wisconsin
- Pumping Station Nos. 6, 7, 8, 11, and 12 – Madison Metropolitan Sewerage District, Wisconsin
- Pumping Station No. 31 and Hickory Creek Pumping Station – Woodridge, Illinois
- Booster Pumping Station 106 – Fond du Lac, Wisconsin
- Well House No. 5 – Madison, Wisconsin
- Water Treatment Plant HVAC Improvements – Cedar Rapids, Iowa

YEARS OF EXPERIENCE

17

YEARS WITH FIRM

17

EDUCATION

B.S. Mechanical Engineering – University of Wisconsin-Madison, 2007

REGISTRATION

Professional Engineer in Wisconsin, Arizona, and Iowa

AGENDA ITEM MEMORANDUM

DATE: 1/22/2025

TO: Public Works Committee

FROM: Kevin Jump, PE – City Engineer

SUBJECT: Resolution 159-25-26 - authorizing the appropriate City Officials to execute a contract for engineering for the design of a New Jersey Avenue Trail.

ISSUE

Should the Public Works Committee recommend approving the resolution?

STAFF RECOMMENDATION

Staff recommends approval of the resolution.

BACKGROUND/DISCUSSION

In the summer of 2024, City staff applied for the WisDOT-managed Federal Carbon Reduction Grant and, in April 2025, were notified that the city was awarded $1,086,199.20 in funding. In July 2025, the Common Council approved signing a State Municipal Agreement. The agreement requires the city to provide a 20% match of $271,549.80, bringing the total project budget to $1,357,749.00.

The Project Scope includes construction of a fully separated pedestrian path linking the South Taylor Drive trail (built with federal Non-Motorized Transportation Pilot Program funds) with the recently constructed Kiwanis Park trail, which ties into the existing network serving nearby residential and commercial districts. The project corridor will also be equipped with trail lighting matching the fixtures used on other recent installations, enhancing safety and visibility.

The attached resolution and agreement are the next steps to advance this project. Staff received 12 proposals from interested engineering firms. After review by the Engineering Division, JT Engineering was selected as the best firm to carry out the design phase.

The contract is for $116,511.21, with up to $86,572.80 in reimbursable costs.

Design is expected to be completed in October 2027, with construction starting in the spring of 2028.

FUNDING IMPACT

Funding for the project's design phase was allocated in the 2026-2030 Capital Improvement Plan for 2026.

IF APPROVED, NEXT STEPS:

If approved, the appropriate City staff will sign the contract, and design work will begin.

DEPARTMENT OF
PUBLIC WORKS

2026 NEW JERSEY AVE.
SHEBOYGAN, WI
53081

920/459-3440
sheboyganwi.gov

CITY OF SHEBOYGAN
RESOLUTION 159-25-26

BY ALDERPERSONS DEKKER AND RUST.

JANUARY 26, 2026.

A RESOLUTION authorizing the appropriate City officials to execute a contract for engineering for the design of a New Jersey Avenue Trail.

WHEREAS, in 2025, the City entered into a State/Municipal Agreement for a Project with the State of Wisconsin Department of Transportation for a Carbon Reduction Program Project between South Taylor Drive and River Park Road (the "Project"); and

WHEREAS, the next step in the Project is to enter into the attached Three-Party Design Engineering Services Contract with the State of Wisconsin Department of Transportation and JT Engineering, Inc.; and

WHEREAS, pursuant to the contract, the City is responsible for making full payment on the contract and is expected to receive reimbursement of up to $86,572.80 from the Wisconsin Department of Transportation.

NOW, THEREFORE, BE IT RESOLVED: That the appropriate City officials are hereby authorized to enter into the attached contract with the State of Wisconsin Department of Transportation and JT Engineering, Inc. in the amount of $116,511.21 and to draw funds from the Capital Projects Fund-Sidewalk/Trail Replacement, Account No. 400300-641300 in payment of the contract. Reimbursement shall be deposited in the same account.

PASSED AND ADOPTED BY THE CITY OF SHEBOYGAN COMMON COUNCIL
_____.

Presiding Officer

_____
Ryan Sorenson, Mayor, City of Sheboygan

Attest

_____
Meredith DeBruin, City Clerk, City of Sheboygan

THREE PARTY DESIGN ENGINEERING SERVICES CONTRACT
SIGNATURE PAGES

ENGINEERING SERVICES CONTRACT

BETWEEN THE WISCONSIN DEPARTMENT OF TRANSPORTATION, CITY OF SHEBOYGAN (MUNICIPALITY)

AND JT ENGINEERING, INC (CONSULTANT) FOR

Project ID 4996-01-82
C Sheboygan, New Jersey Avenue Trail
S. Taylor Drive to River Park Road
Non-Hwy, Sheboygan County

This CONTRACT made and entered into by and between the DEPARTMENT, MUNICIPALITY and the CONSULTANT provides for those SERVICES described in the Scope of Services and Special Provisions and is generally for the purpose of providing the SERVICES solicited by the MUNICIPALITY in the Request for Proposals, dated 9/15/25, for the design of a new path along New Jersey Avenue. This Qualification Based Selection was made based on the CONSULTANT'S Notice of Interest response and any interviews conducted.

The DEPARTMENT and MUNICIPALITY deem it advisable to engage the CONSULTANT to provide certain engineering SERVICES and has authority to contract for these SERVICES under sec. 84.01(13), Wis. Stats.

The DEPARTMENT REPRESENTATIVE is: Katie Schwartz, PE, Project Manager, 944 Vanderperren Way, Green Bay, WI 54304, katiea.schwartz@dot.wi.gov, (920) 492-5652.

The MUNICIPALITY REPRESENTATIVE is: Tim Moyer, PE, Assistant City Engineer, 2026 New Jersey Avenue, Sheboygan, WI 53081, tim.moyer@sheboyganwi.gov, (920) 459-3440.

The CONSULTANT REPRESENTATIVE is: Rich Glen, PE, Project Manager, 1077 Centennial Centre Blvd, Hobart, WI 54155, richg@jt-engineering.com, (920) 606-6288.

The CONSULTANT SERVICES will be performed for the DEPARTMENT's Northeast Region office located in Green Bay, WI and will be completed by December 31, 2027. Deliver PROJECT DOCUMENTS to 944 Vanderperren Way, Green Bay, WI 54304, unless other directions are given by the DEPARTMENT.

For all contract services actual costs to the CONSULTANT up to $107,865.79, plus a fixed fee of $8,645.42, not to exceed $116,511.21.

For archaeological investigations subcontracted to Terracon Consultants, Inc. the CONSULTANT's actual costs to Terracon Consultants, Inc. not to exceed $5,000.00 for units delivered based on rates in the table below.

Item Description	Quantity	Unit Type	Unit Cost Rate	Totals
Archaeological Survey	1	Each	$3,800.00	$3,800.00
Project Management/Administration	1	Each	$1,200.00	$1,200.00

THREE PARTY DESIGN ENGINEERING SERVICES CONTRACT
SIGNATURE PAGES

Compensation for all SERVICES provided by the CONSULTANT under the terms of the CONTRACT shall be for an amount not to exceed $ 121,511.21.

Compensation for all SERVICES provided by the CONSULTANT under the terms of the CONTRACT will be from the:

□ DEPARTMENT ☒ MUNICIPALITY

The CONSULTANT does and will comply with the laws and regulations relating to the profession of engineering and will provide the desired engineering SERVICES.

This CONTRACT incorporates and the parties agree to all of the standard provisions of the Three Party Design Engineering Services Contract, dated June 18, 2025 and referenced in Procedure 8-15-1 of the State of Wisconsin Department of Transportation Facilities Development Manual. CONSULTANT acknowledges receipt of a copy of these standard provisions.

This CONTRACT incorporates all of the MANUALS defined in the CONTRACT.

The parties also agree to all of the Special Provisions which are annexed and made a part of this CONTRACT, consisting of 7 pages.

Nothing in this CONTRACT accords any third party beneficiary rights whatsoever on any non-party that may be enforced by any non-party to this contract.

For the CONSULTANT

By: Signed by: Brian Chlopek EB6227302D26463...

Title: Vice President

Date: January 22, 2026

For the DEPARTMENT

By: _____

Contract Manager, WisDOT

Date: _____

For the MUNICIPALITY

By: _____

Title: _____

Date: _____

THREE PARTY DESIGN CONTRACT SPECIAL PROVISIONS

The following are recommended special provisions for the design contract to be inserted behind the standard provisions.

VI. SPECIAL PROVISIONS

SCOPE OF SERVICES

A. DESIGN REPORTS

(1) Prepare the following engineering reports/analyses as directed by the MUNICIPALITY:
   a. Design Study Report
   b. Traffic Management Plan (Type 1)

B. ENVIRONMENTAL DOCUMENTATION

Execute a disclosure statement as required by 40 CFR 1506.5(c).

Prepare a Categorical Exclusion Checklist (CEC) Environmental document for the PROJECT as specified in the MANUAL and Chapter TRANS 400, Wisconsin Administrative Code. Furnish the required number to the MUNICIPALITY for approval.

Prepare an environmental document that evaluates reasonable alternatives to the PROJECT and consider other reasonable actions or activities that may achieve the same or similar goals of the proposed highway PROJECT, including other or additional transportation alternatives and intermodal opportunities and the alternative of taking no action. Evaluate alternative courses of action based upon a balanced consideration of the environment, public comments, and the need for safe and efficient transportation consistent with local, state, and national environmental goals. Prepare environmental documents that are concise and emphasize significant environmental issues and plausible alternatives. Comply with requirements specified in the MANUAL and TRANS 400, Wisconsin Administrative Code. In the event of a conflict between the MANUAL and TRANS 400, Wisconsin Administrative Code, the administrative rule supersedes.

(1) Section 4(f) Evaluation:

Any impacts to 4(f) resources are anticipated to be so minimal as to not constitute a use within the meaning of Section 4(f) per 23 CFR 774.13 (d). If needed, an exception will be documented within the environmental document. No additional coordination or documentation is included.

(2) Archaeological Surveys and Studies:

(a) This CONTRACT assumes the PROJECT will be placed on the Section 106 Screening List for History only.

(b) Assist the DEPARTMENT with the documentation needed to place the PROJECT on the Section 106 Screening List for History.

(c) Identify the Area of Potential Effect for the PROJECT. Conduct a reconnaissance survey as specified in the MANUAL. Submit the results of the archaeological reconnaissance and evaluation studies to the region project manager. Obtain recommendations from the archaeologist, Bureau of Environment and the Project Manager prior to conducting evaluation studies when further work is needed.

(d) Prepare a report as required in the "Guidelines for Preparation of Formal Report on Archaeological Materials or Sites" in accordance with the MANUAL.

(e) Prepare and submit the Section 106 Review Form upon completion of the archeology survey and report.

(3) Hazardous Materials/Contamination Assessments

(a) Conduct a Phase I investigation for the PROJECT in accordance with the MANUAL.

(b) Obtain direction from the Project Manager and the Region environmental coordinator prior to conducting further evaluation studies when Phase 1 indicates further work is needed.

(c) The MUNICIPALITY acknowledges that the CONSULTANT is not, by virtue of this CONTRACT, the owner or generator of any waste materials generated as a result of the Hazardous Materials/ Contamination Assessments services performed by the CONSULTANT under this CONTRACT. Dispose of investigative waste in accordance with the MANUAL.

C. AGENCY COORDINATION

(1) Section 401 and 402 Certifications:

Evaluate the effects of the PROJECT on water quality, in accordance with the provisions of the Clean Water Act and Chapter TRANS 400, Wisconsin Administrative Code and the MANUAL; and prepare the necessary application.

(2) FAA and BOA Coordination - Coordinate PROJECT with FAA and BOA as outlined in the MANUAL. This CONTRACT assumes no impact on adjacent airports/airspace, and only initial coordination will be required.

(3) US Fish & Wildlife Service (USFWS).

Initiate the coordination with USFWS via IPaC and download the initial Threatened and Endangered Species List. Analyze and determine effects to any species and habitat included on the list. Include the results of the Species List and the effects assessment with the environmental document. This CONTRACT assumes that the project improvements will result in No Effects to any listed species in the project area.

(4) Tribal Notifications.

Prepare and submit the electronic tribal notifications to the DEPARTMENT. The DEPARTMENT will send the electronic notification to the required tribes and CONSULTANT to mail hard copies.

D. RAILROAD/ UTILITY INVOLVEMENTS

(1) Utility Coordination

Perform all utility coordination in accordance with:

(a) The MANUAL
(b) The WisDOT “Guide to Utility Coordination”
(c) The “Sponsor’s Guide to Non-Traditional Project Implementation”

(2) The DEPARTMENT/MUNICIPALITY will provide the CONSULTANT with a list of known utilities on the PROJECT and a list of contact personnel for utility coordination. This list is not warranted to be complete, but is furnished to assist the CONSULTANT. Verify and update the list.

(3) Confer on an ongoing basis with all utility facility owners in the project vicinity to establish mutual understanding on design features of the project affecting utility facilities, and shall keep the MUNICIPALITY informed of all such coordination activities. Provide the MUNICIPALITY with plans and information that will allow it to meet its planned utility coordination schedule.

E. PUBLIC INVOLVEMENT

(1) Prepare a Public Involvement Plan according to the MANUALS.

(2) Public Involvement Meetings:

(a) Conduct or assist the MUNICIPALITY in holding one (1) public involvement meeting and explain to the public concepts and probable impacts of this PROJECT.

(b) Prepare all exhibits and supplementary handout material and provide the equipment necessary to conduct the public involvement meeting.

(c) Prepare a summary report after the public involvement meeting.

(d) Discuss with the MUNICIPALITY the comments received and recommend the possible disposition of these comments and suggestions after the public involvement meeting.

(e) Make all the necessary arrangements for scheduling the public involvement meeting and provide notices and press releases for the MUNICIPALITY'S use.

(f) Provide the MUNICIPALITY with copies of all public involvement correspondence and file notes.

(g) Coordinate meeting schedules with the MUNICIPALITY'S representative.

F. MEETINGS

(1) Attend or hold a combined virtual 30% review/Operational Planning Meeting to discuss the organization and processing of the Services under this CONTRACT.

(2) Virtual plan review meetings at the 60% and 90% stages will be held to discuss the progress of the project.

(3) One (1) virtual meeting will be held to discuss the coordination of the project with the adjacent bridge replacement project.

(4) Attend the pre-construction conference as scheduled by the MUNICIPALITY.

G. SURVEYS

(1) Prepare and send a survey notification letter to all properties located within the project limits.

(2) Perform surveys referenced to Wisconsin Coordinate Reference System (WISCRS) – Sheboygan County, NAD83, (2011) adjustment, NAVD 88 (2012) adjustment referenced to GEOID18, in US Survey Feet.

(3) Set horizontal and vertical project control, at least 4 Control Points and 3 Benchmarks.

(4) Complete the following field reviews, measurements, and survey:

(a) Survey to extend 25' beyond the limits on each end of the project and along the north approach on each side road.

(b) Area will include centerline of New Jersey Ave to 10' beyond the existing right of way or to nearby houses if they are closer than the 10' edge.

(c) Include next adjacent storm structures to identify flow direction/elevations.

(d) Survey joint lines of bad concrete panels for replacement & all existing ped ramps to determine if they meet current standards.

(e) Field marked utilities. This CONTRACT assumes that the utilities will be properly marked in the field and will require one trip to survey the marks.

(f) All existing public signs within the project limits.

(5) Locate the necessary section corners. It is estimated that two (2) section corners need to be located and tied to WISCRS, Sheboygan County NAD83(2011).

(6) Conduct surveys that provide information necessary for the preparation of plats and acquisition of rights of way and property. Provide right-of-way monumentation information. All such information shall be provided in an electronic file in accordance with the MANUAL.

(7) Tie surveys to section corners, quarter section corners, and to street lines or block corners in platted areas. Ties shall be in sufficient detail to permit the preparation of proper legal descriptions of the lands acquired.

H. PLANS

Section II C (9) in the Standard Provision of the CONTRACT is amended to include the following plans:

(1) Plans will consist of the following:

(a) Title Sheet
(b) General Notes
(c) Typical Cross Sections
(d) Construction Details
(e) Standard Details
(f) Signing and Marking Plans
(g) Curb Ramp Details
(h) Traffic Control Plan (including pedestrian detour route)
(i) Lighting Plans
(j) Erosion Control Plan (may be combined with plan and profile sheets)
(k) Miscellaneous Quantities with Earthwork Data
(l) Plan and Profile Sheets
(m) Cross Sections

(2) It is assumed that the proposed path will fit within the existing right of way and that approximately 50% of the project will require the relocation of the existing curb and gutter line along the north side of New Jersey Avenue.

(3) Design storm sewer inlets and leads at the locations where the curb and gutter is relocated. Storm sewer capacity calculations and redesign of mainline storm sewer is not anticipated to be part of the design.

(4) Design the traffic control based on shoulder closures on New Jersey Avenue and potentially closure of River Park Road. Traffic control will be coordinated with the adjacent bridge project.

(5) Trail lighting will be included in the design with the fixtures expected to closely match those used on adjacent projects (Taylor Drive).

I. PLANS, SPECIFICATIONS & ESTIMATES (PS&E)

(1) The CONSULTANT shall prepare a complete PS&E.

(2) The PROJECT shall be locally let by the MUNICIPALITY.

J. SERVICES PROVIDED BY THE MUNICIPALITY

The MUNICIPALITY will provide to the CONSULTANT the following for the PROJECT:

1. Access to City of Sheboygan GIS information
2. Existing Roadway plans (as available)
3. City “front end” document templates to be filled out and included within the project manual.
4. Any permit fees
5. Plans and documents related to the proposed River Park Road reconstruction project
6. Identification of concrete panels on New Jersey Avenue to be replaced with the project
7. Identification of additional storm sewer structure and pipe replacements needed.
8. Publication of the Public Involvement Notice
9. Provide mailing list for the Public Involvement Mailing

PROSECUTION AND PROGRESS

(1) The MUNICIPALITY shall report on the progress of the PROJECT as stipulated in the contract agreement. Standard benchmarks, consistent with DEPARTMENT’S internal staff benchmarks, will be reported monthly to the DEPARTMENT. The actual start, projected or actual finish date, and percent of work complete will be included for all relevant benchmarks on any project report required for delivery to DEPARTMENT staff. The report can be delivered in electronic format consistent with current DEPARTMENT standards (Microsoft Project), or on paper.

(2) The CONSULTANT proposes to sublet these services to:

(a) Archeological Investigations by Terracon Consultants, Inc, 4900 South Pennsylvania Ave, Suite 100, Cudahy, WI 53110.

(3) The following items of work will be completed and submitted to the MUNICIPALITY by the indicated dates, if CONSULTANT has received the Notice to Proceed by February 1, 2026.

Report Title	Date
30% Plans & Estimate	6/1/26
OPM/30% Meeting	7/1/26
Public Involvement Meeting	7/15/26
Environmental Document	9/1/26
60% Plans & Estimate	11/1/26
Design Study Report	11/1/26
Draft PS&E	9/1/27
Final PS&E	10/13/27
Project Letting	12/15/27