TROTTER and ASSOCIATES, INC.

July 2, 2026

City of Geneva
22 S. First Street
Geneva, IL 60134

Attn: Ms. Alex Voigt, City Administrator

Re: **2026 Water and Sewer Rate Study and Integrated Infrastructure Master Plan**
Statement of Qualifications

Dear Ms. Voigt,

We sincerely appreciate this opportunity to present our firm's qualifications to provide services for the City's 2026 Water and Sewer Rate Study and Integrated Infrastructure Master Plan. The enclosed Statement of Qualifications demonstrates our team's qualifications and capabilities, relevant project experience, project understanding, and our unique approach to planning. Trotter and Associates has developed a team of professionals and a project approach that revolves around collaboration, experience, and dedication to a common goal - the satisfaction of our clients.

The project team includes myself providing mentorship and QA/QC, Karen Young, P.E., CFM as Senior Project Manager, Aaron Berry, MBA, P.E. will oversee all financial and rate analysis, Chris Marschinke, P.E. will serve as the Water Senior Project Manager, Jillian Kiss, P.E. will serve as the Wastewater Project Manager, Terry Heitkamp, P.E. and Mitch Severson, P.E. will serve as Project Engineers for the transportation and underground utilities, as well as supporting staff noted in the organization chart. As the Senior Project Manager, Karen will be the primary point of contact with the City, responsible for coordinating with all City and TAI team members. Karen has an in-depth understanding of municipal engineering projects, public works operations, and the importance of partnership with the City of Geneva, community members and other governmental agencies for a successful project having served most of her career in the municipal sector both in engineering and public works. This management style ensures a seamless workflow and refines quality of final deliverables.

Trotter and Associates has completed dozens of Water Master Plans, Wastewater Facility Plans and pavement evaluations, over the past 27 years, which include various levels of rate evaluations as well as full rate studies. We have secured more than $412M in SRF low-interest loan funding for our clients and have a thorough understanding of capital programs. Our extensive history with local communities and their Water and Wastewater systems will provide unparalleled service for the City of Geneva. We understand the City's goals, are invested in the community, and can begin immediately.

In closing, we are looking forward to this opportunity to partner with the City of Geneva. If you should have any questions or require any additional information, please call or email me at your convenience.

Sincerely,

Robert Scott Trotter, PE, BCEE
President

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Fox Lake, IL 60020
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CITY OF GENEVA
2026 WATER & SEWER RATE STUDY
AND
INTEGRATED INFRASTRUCTURE MASTER PLAN

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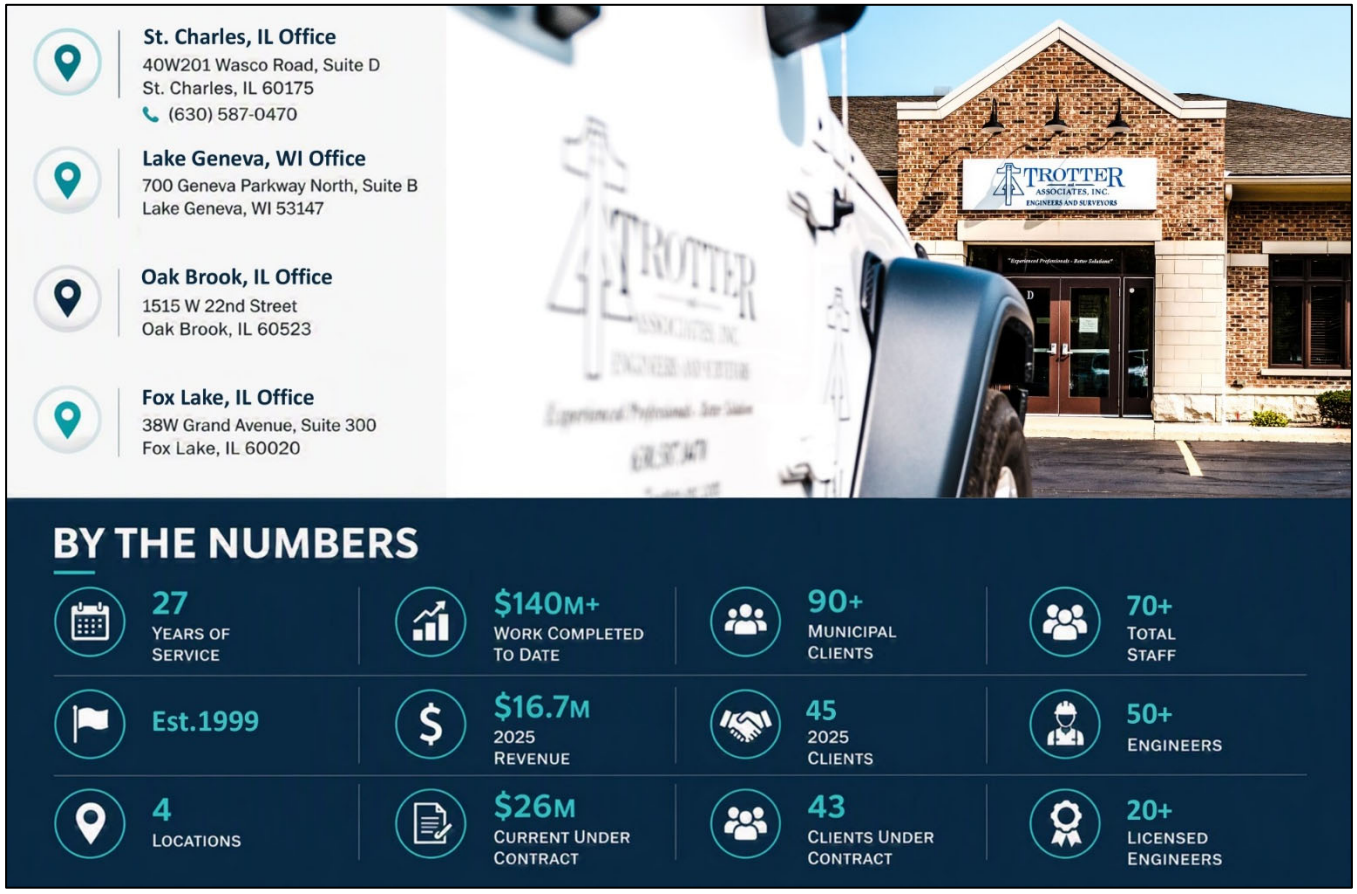
APPENDIX - RESUMES



Firm Information

PROJECT PERSONNEL & EXPERIENCE

TROTTER AND ASSOCIATES, INC. EXPERIENCED PROFESSIONALS – BETTER SOLUTIONS



Trotter and Associates, Inc. (**TROTTER**) is a full-service civil engineering firm that have developed a team of professionals that are experienced, proficient and dedicated to a common cause – the satisfaction of our clients. **TROTTER**'s team provides studies, planning, design, and construction phase services for municipal water, wastewater, transportation, utility infrastructure, survey, and GIS projects. The team is focused on developing strong client/consultant relationships and strives to earn each client's confidence, respect, and trust through exceptional service. This project will be serviced out of our St. Charles office.

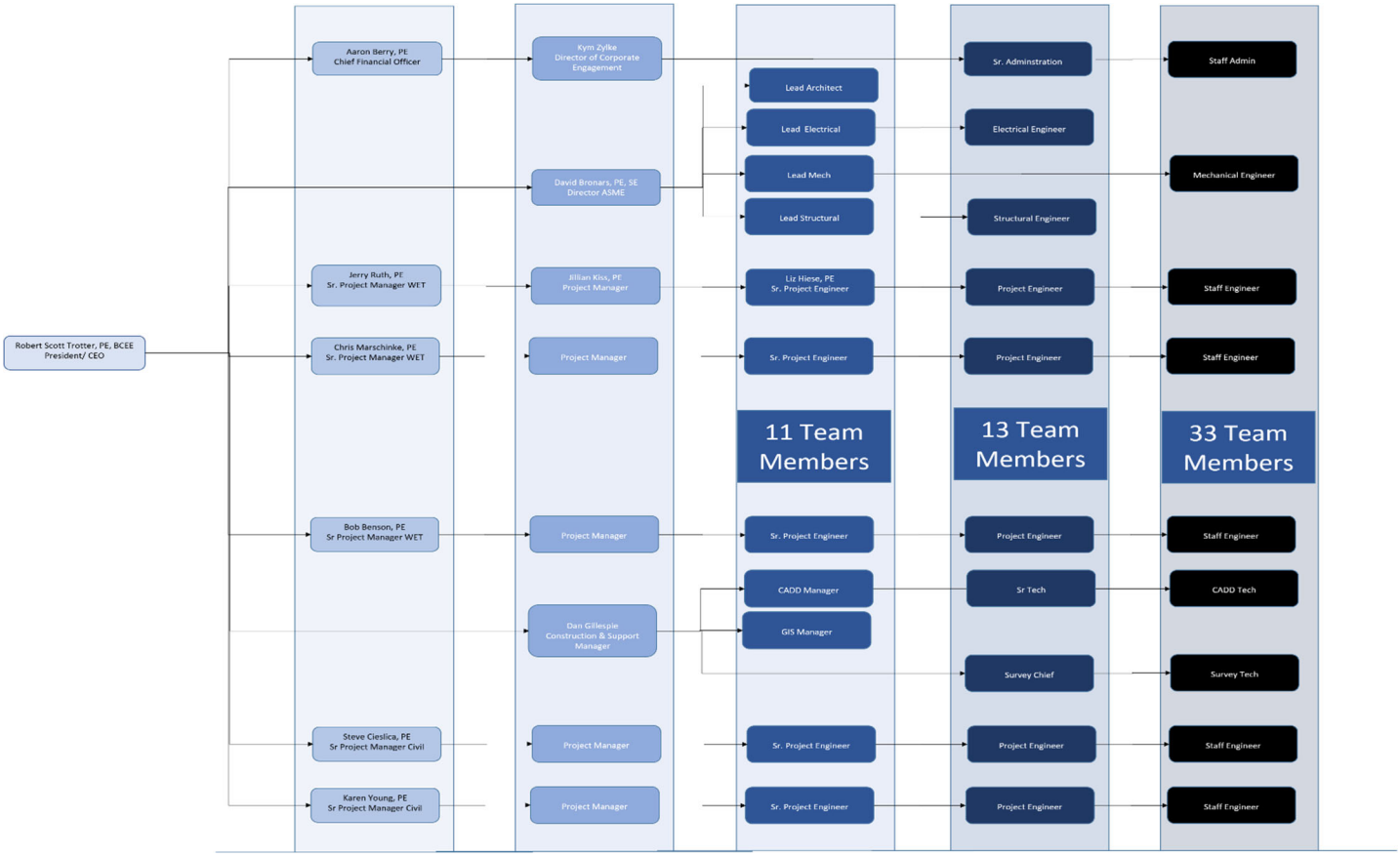
Practical Approach

Trotter and Associates staff is most recognized for our "boots on the ground" approach to working with clients, understanding their needs and maintaining continuity from concept through construction. Each member of TAI's team is required to spend a significant amount of time in the field, overseeing construction and working with operational personnel to gain a stronger understanding of how our services integrate with the other stakeholders and the end user. It is this practical "hands-on" experience that separates **TROTTER**'s team from other engineers.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Firm Organization and Ownership

Trotter and Associates is structured to meet the growing needs of our municipal clients. Each project team is hand-picked based on their skills, experience and expertise, and how those attributes can further assist our clients in achieving their project goals. With over 70 professionals, **TROTTER**'s staff includes 20 licensed engineers, 23 engineers-in-training, as well as Architectural, Structural, Mechanical, and Electrical engineers, GIS, Survey, and CAD support services all in-house.



Trotter and Associates is a privately held Subchapter S Corporation incorporated in the State of Illinois. The firm's strategic plan is based on three critical objectives:

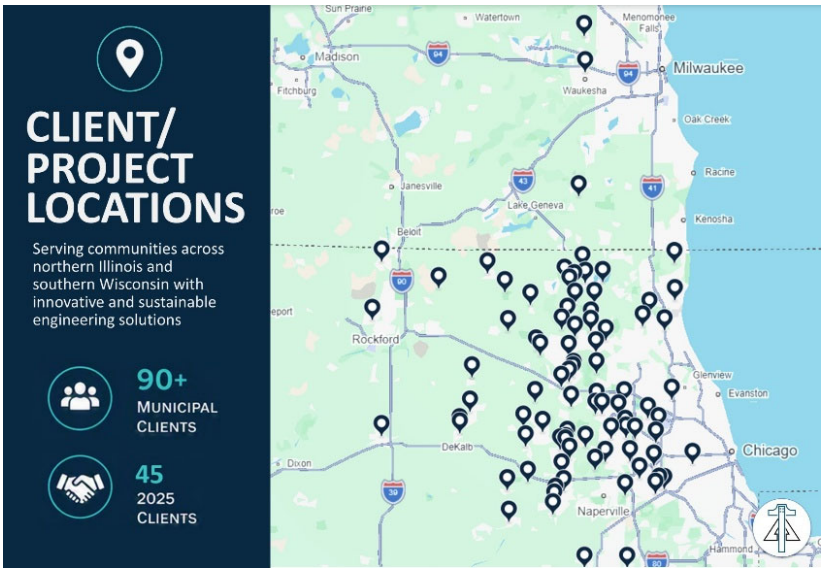
- ***Nurture External Relationships***
- ***Enhance the Expertise of the Team***
- ***Guarantee Operational Stability***

The last objective speaks to the financial strength of the firm and its internal transition of ownership. **TROTTER** developed an internal transition plan in 2018 which lays out a 25-year transition from the founders to the second generation of owners. The same structure will be viable for future generations as well. While Scott Trotter still retains the majority holdings, the firm currently has nine additional shareholders with more being added each year. The make-up of the ownership provides balance and maintains the longevity of the firm. The new shareholders are selected from the leadership team within the firm, taking into account their commitment to our strategic goals and success in the industry.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

TAI Client Base

Trotter and Associates is a municipal engineering firm dedicated to finding solutions that best serve the public interest. TROTTER's clients know that our professionals not only possess the technical expertise to address their immediate needs but can also see the bigger picture and develop solutions that are consistent with the community's long-term goals.



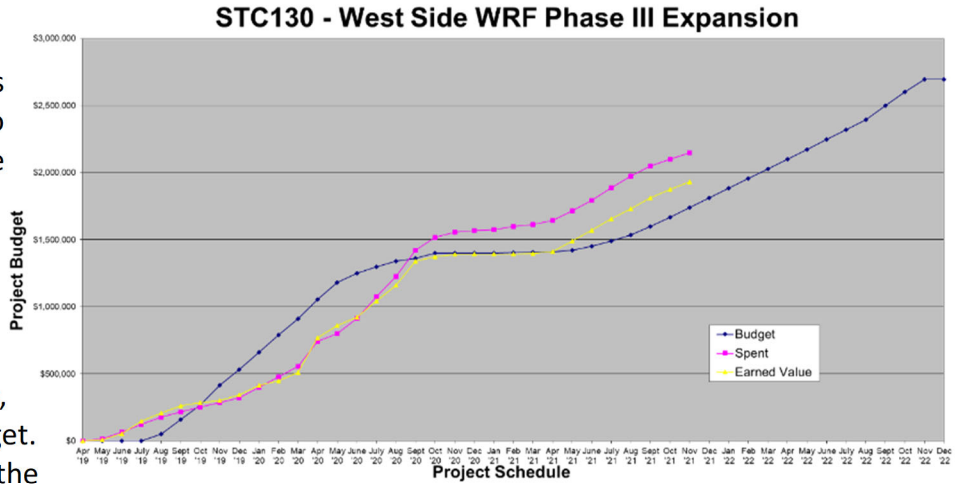
Trotter and Associates has completed over $140 Million in engineering services, of which more than 90% was provided to public sector clients. TROTTER's private sector work is limited to private utilities and rail companies.

Regulatory Actions, Litigation and Insurance

TAI has no regulatory actions, litigation on work performed and maintains insurance coverage including, but not limited to professional liability and errors and omissions. A copy of our policy can be provided.

Firm Capacity

Trotter and Associates places a premium on our ability to complete projects within the agreed upon schedule. Our project managers utilize an earned value system to track progress for each project which analyzes percent complete, milestones, resources utilized, and budget. This chart is shared with the client in monthly reports to keep them informed of actual progress and to maintain open communications regarding decisions or actions necessary to complete the project on time. This process allows us to effectively manage each project and to take corrective action on a timely basis, as well as recognize when additional resources are required to meet our client's objectives.



Trotter and Associates' goal is to consistently increase the firm's capacity and workload by 17% per year. Our Firm has successfully met this objective for the past 27 years. TROTTER's current capacity equates to 112,000 billable hours of 152,000 total manhours. Our team manages a monthly backlog report which outlines the current projects, deadlines, committed resources for active projects, as well as future projects categorized within selected-not-booked and potential. Utilizing this system, we ensure that we are not over-committed and that our team is able to meet our committed deadlines.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Resource Management

TROTTER's organizational chart allows the flexibility to share resources effectively between project teams. We are currently managing 167 active projects. These projects are in various phases including planning, design and construction. **TROTTER** manages these projects through a well-organized team of project managers which are responsible for their specific clients.

5/18/2026	Job Name	Lit.	Lead	Local	1 Rehm - MEB289	2 Benach - SEB307	3 Benson - RWB371	4 Berry - APB332	5 Betz - CLB301	6 Blount - DYB235	7 Brosam - DSB208	8 Busch - CLB276	9 Chavez - JCC210	10 Clarke - SPC141	11 Colbert - RMC310	12 Cash - MMC335	13 Davison - MJD144	14 Davenport - EAD259	15 DeLarbe - BRD261	16 Dupree - JND169	17 Fields - LMF275	18 Frank - SGF258	19 Gillespie - DJG180	20 Graham - JTG216	21 Hansen - CMH186	22 Hoch - MTH255	23 Hattendorf - GEH1040	24 Hesse - EMH180	25 Holtkamp - TMH198	26 Hix - JAH232	27 Kiss - JSK142	28 Kwek - GCK311	29 Lennon - TCL287	30 Manley - MMM280	31 Manzchinke - CJM1226	32 Martin - PAA286	33 McNichols - DJM336	Total
					40	40	60	1	38	40	40	40	40	46	51	40	40	40	40	40	40	41	44	48	40	44	40	56	43	48	33	34	40	32	45	58	36	48	2318
ADC002	Queen of Heaven Cemetery Watermain	KRY	S																																			0
ADD013	Sewer Separation & Detention Basin	CJM	S																				8	40											1			49
ADD014	North WWTP	JMR	S							12			8				4				4		4		8			2							4	32	166
ADD015	AJL Pump Station	JMR	S																						8											16	56
ADD016	AJL Force Mains	KRY	S												8																						28
ALG038	WWTF Biosolids Handling	JGA	S																												2						30
ALG045	High Hill Sanitary Sewer	TMH	S																																		0
ALG048	Algonquin Shores Lift Station Rehab	JGA	S																																		0
ALG049	Janek & Wecks Water and Sewer Feasibility	TMH	S																																		8
ALG051	Woods Creek FM Replacement	TMH	S																										4								8
AQU009	Candlewick Lake Well No. 3 WTP	RWB	N				16				4																16								16		52
ATR009	Township GIS Services	SPC	N																																		0
BAT031	WWTF Phase 2A Improvements	JMR	S	x													8						1														21
BAT037	WWTF Phosphorus Reduction	JMR	S																																		2
BAT038	WWTF Biological Upgrades	JMR	S																						4												24
BUR002	City of Burlington - Gen Eng	RWB	N																																		0
BUR008	Phosphorus Removal Pilot Study	RWB	N																																		0
BUR009	Digester Mixing System Replacement	RWB	N																																		0
BUR010	HWY 31 Lift Station Replacement	RWB	N																																		0
BUR011	Well 9 Electrical Improvements	RWB	N															4																			4
BUR012	Wastewater Master Plan	RWB	N																																		0
BUR013	Bohner's Lake Sanitary District IGA	RWB	N																																		0
BUR014	Kirk Lift Station Replacement	RWB	N																																		0
BUR015	WWTF Boiler Replacement	RWB	N															6																			6
BUR016	Well 11 Rehabilitation	RWB	N																																		0
BUR017	CMOM Update	RWB	N															1																			1
BUR018	Risk and Resilience / Emergency Reponse Plan	RWB	N															1																			1
BUR019	Well 8 Generator	RWB	N																																		0
CCL012	WWTF #2 & 3 Disc Filters & Rehabilitations	CJM	S																																2		6
CNC001	City of North Chicago - General Eng	SPC	N																																		0
CNC001.2025/26	General Eng	SPC	N						5					10																							25
CNC001.G.2025/26	City Grants	SPC	N																																		10
CNC001.GIS.2025/26	GIS Updates	SPC	N																																		0
CNC001.WO206	Marion Jones Redevelopment	SPC	N																																		0
CNC002.WO159	2025 MFT Road Program	SPC	N																																		20
CNC002.PW.2025/26	PW City Streets 2024/2025	SPC	N						10					15																							50
CNC003-San.2025/26	PW Sanitary Sewer 2024/2025	SPC	N																																		5
CNC004.2025/26	PW Water System 2024/2025	SPC	N																																		20
CNC004.WO149	Broadway Avenue Water Main Replacement	RWB	N						15																												15
CNC004-WO104	Water Asset Collection Survey	SPC	N																																		0
CNC004-WO58	WTP Building and Grounds Imp	SPC	N																																		0
CNC004-WO148.E	LSLR Phase 1 - Construction	x	RWB	N			4																														19
CNC004-WO153	Filters B-11 Rehabilitation		RWB	N																																	0
CNC004-WO157	Source Water Protection Plan		RWB	N																																	0
CNC004-WO158.E	Water Tower No. 1 and Transmission Main - Construction	x	RWB	N			4																														24
CNC004-WO159	Filter Rehab Project Planning Report	x	RWB	N		24	8																														8
CNC004-WO160	WTP Lift Station and Force Main		RWB	N																																	0
					40	40	60	1	8	8			16	16				28		10	32									4				8	20			250
					40	40	60	1	38	40	40	40	40	46	51	40	40	40	40	40	40	41	44	48	40	44	40	56	43	48	33	34	40	32	45	58	36	48	2310

TROTTER's team reviews active projects, deadlines, workload, and resource allocation every Monday morning to ensure we are meeting our client's needs and goals. Accurate tracking of the City's project on a weekly and monthly basis, coupled with the flexibility to share resources between teams means that TAI can ensure the City of Geneva 2026 Water and Sewer Rate Study and Integrated Infrastructure Master Plan will be completed on time and within budget.

Water Engineering Services

A public official's charge is to invest their community's limited resources wisely. That serious responsibility includes decisions regarding improvements to the community's water system, which protects public health, enhances quality of life, is instrumental in fire protection, and supports economic growth within the community.

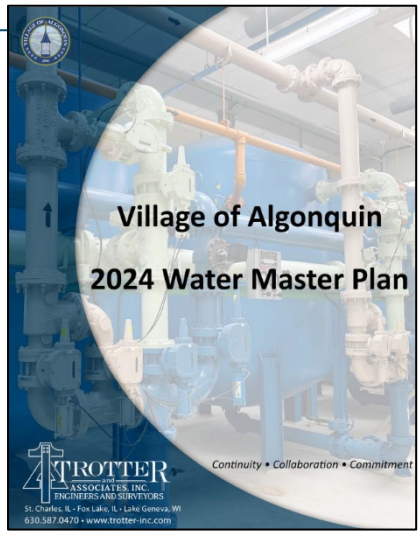
As our clients continue to redevelop and/or grow, there is a need to address reliability of the aging infrastructure as well as improve water quality and the efficiency of the system. Complicating these issues are new and pending requirements with respect to lead and copper regulations. As building codes and ISO Ratings have evolved, older distribution systems are often inadequate to meet the conveyance requirements of updated fire flows. To balance these competing demands, communities must invest into more efficient technologies such GIS, asset management and modeling to identify critical infrastructure and develop a strategic approach to enhance reliability.

Trotter and Associates, Inc. has become highly respected for successfully planning, designing and implementing a wide range of water and wastewater infrastructure solutions. Our team of professionals work closely with our clients, enabling staff and elected officials to make informed decisions concerning the improvements to be implemented. TAI's team will find the strengths of the existing infrastructure and maximize those in development of solutions that fit the community's long-term needs. TAI provides a comprehensive suite of water engineering services including:

- **Water System Master Planning**
- **Regulatory Evaluation and Compliance Reporting**
- **Program Management and Design of Water Distribution Upgrades**
- **Distribution System Modeling and ISO Rating support**
- **GIS, Data Collection and Asset Management**
- **Design of Elevated Storage, Ground Storage and Booster Station**
- **Rehabilitation and Replacement of Water Treatment Infrastructure**

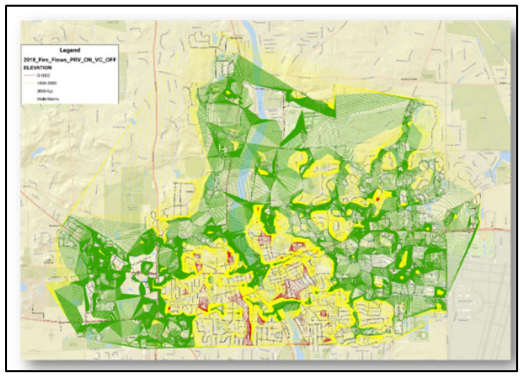
PROJECT PERSONNEL & EXPERIENCE CONTINUED

Water System Master Planning and Modeling



Trotter and Associates, Inc. has developed Water System Master Plans for a number of communities in northern Illinois. TAI's formula for success includes a comprehensive review of the existing infrastructure, working closely with the operational staff, development of specific solutions, and preparation of concise reports. Trotter and Associates, Inc. team possess practical experience and expertise to analyze all components of the existing infrastructure including water supply, storage, booster stations, water treatment facilities as well as distribution systems with multiple pressure zones.

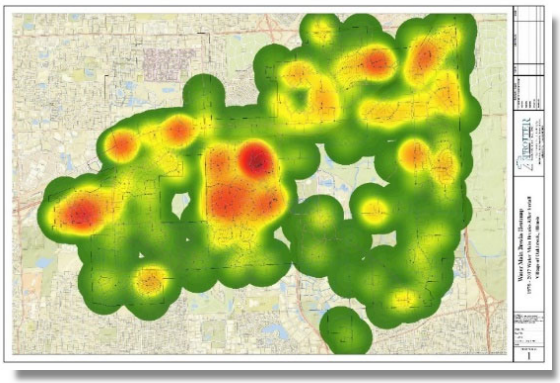
Master Planning is an important element in the development of water systems, as this phase establishes the basis from which all future decisions should be made. Trotter and Associates' process is a cooperative effort between our team and City staff to develop a comprehensive analysis of the distribution system, as well as water supply, treatment and storage facilities. Each of these aspects will be reviewed with respect to current rehabilitation needs, pending regulatory issues, and future capacity requirements. The plan typically concludes with recommendations, financial impact analyses, implementation schedules, as well as identification of funding sources.



Our team combines our expertise in water system modeling with GIS data management to evaluate the distribution system and identify critical infrastructure and project specific solutions. This evaluation includes reviewing age of the infrastructure, mapping break history, identifying water quality complaints, lead service locations, available fire flow, etc. to provide a comprehensive overview of the distribution system's strengths and limitations. With this data available we invest the time to analyze potential solutions and identify projects that will resolve issues cost effectively. This data is utilized during development of the Capital Improvements Plan to prioritize projects and identify their impact on the community's infrastructure. Ultimately, TAI provides a product that demonstrates the system's strength, weaknesses, needs, and solutions to elected officials and the public.

Water System Modeling

TAI's professionals currently utilize WaterCAD V8i/WaterGEMS which is the latest version of the Bentley modeling software. TAI often maintains, updates, and provides ongoing analysis for communities to address the potential impacts of infrastructure improvements or pending development. In addition, TAI provides modeling in support of the community's efforts with respect to updates of the ISO reports. Recently, TAI has added the software's capability to predict water age and the influence of different water sources throughout the distribution system.



PROJECT PERSONNEL & EXPERIENCE CONTINUED

Wastewater Engineering Services

Trotter and Associates has the wastewater engineering expertise required to resolve the complex issues brought on by increased development, a changing regulatory environment, and aging infrastructure. Our team is heavily involved in local, state, regional, and national organizations that specialize in wastewater collection, treatment, and disposal. TROTTER's staff has served in leadership roles within the Water Environment Federation, American Water Works Association, and the American Public Works Association. In addition, the firm is closely aligned with academia and the Water Environment Research Foundation which is actively pursuing the development of treatment processes for the advancement of our industry.



Village of Fox Lake NWRWRF

Village of Algonquin WWTP

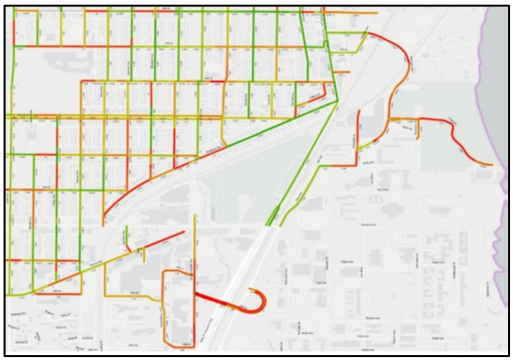
Glenbard Wastewater Authority

City of St. Charles Main WWTP

TROTTER's professionals are helping to shape national policy as well as advance the best technologies, operational techniques, and management strategies for collection systems, treatment facilities, and watersheds. As such, our staff is on the leading edge of pending environmental legislation and advancements that assist our clients in meeting the demands of their community. TROTTER has become highly respected for successfully planning, designing, and implementing a wide range of wastewater infrastructure solutions. TROTTER understands that each community's infrastructure is unique and that its design has been influenced by a variety of factors including the rate of development, regulatory issues, and operational preference. Aside from having experience with a variety of alternative solutions, TROTTER's professionals have a comprehensive understanding of the building blocks essential to design wastewater infrastructure including:

- **Biological, physical, and chemical processes for removal of contaminants and nutrients.**
- **Mechanical engineering for the selection, proper installation, and maintenance of systems.**
- **Hydraulic engineering to ensure operation over a wide range of conditions.**
- **Program Management and Design of Sanitary Distribution Upgrades**
- **Program Management and Design of Lift Station Upgrades**

Pavement Evaluation Services



Our pavement evaluation and roadway design services provide comprehensive assessment and engineering solutions to support the rehabilitation, reconstruction, and improvement of transportation infrastructure. Services include field inspections, pavement condition assessments, distress surveys, and evaluation of existing roadway geometry, drainage, and traffic operations. Data collected during the evaluation process is analyzed to identify deficiencies, determine remaining pavement life, and develop cost-effective maintenance or rehabilitation recommendations. See resumes for specific project examples

Wastewater Facility Plans

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Facility Evaluations and Master Planning

Trotter and Associates has developed Water and Wastewater Facility Plans and Master Plans for numerous communities throughout the region for water, wastewater, stormwater and roadways. Our comprehensive approach consists of evaluating existing infrastructure, working closely with the operational staff, developing specific solutions, and preparing concise reports. The final report provides the elected officials, as well as the public, information outlining the existing treatment system's strengths, limitations, needs, and solutions, ultimately allowing the elected officials to make well educated decisions about future projects.

City of Batavia (2005, 2013, 2015, 2021)
City of Harvard (2013, 2015, 2019)
City of St. Charles Main WWTP (2002, 2010, 2015, 2024)
City of St. Charles West WRF (1999, 2008, 2015, 2019, 2024)
DeKalb Sanitary District (2008, 2013)
Glenbard Wastewater Authority (2018)
Northern Moraine WRD (2004, 2015, 2024)
Village of Algonquin (2004, 2015, 2022)
Village of Bartlett (2011, 2014)
Village of East Dundee (2006, 2013, 2017)
Village of Fox Lake (2014, 2015, 2016)
Village of Glendale Heights (2018)
Village of Rockton (2015)
Village of Roselle Devlin WWTP (2002, 2017, 2020, 2025)
Village of Roselle Botterman WWTP (2002, 2017, 2020, 2025)
Wheaton Sanitary District (2013, 2017)

TAI organizes Facility Plans in a progressive format that works well with the IEPA low interest loan program. Once complete, the facility plan, master plan or project plan is organized in a format to expedite the Illinois EPA's planning approval process used to secure Low Interest Loans. TAI has successfully leveraged these planning documents to secure over $412M in low interest loans to implement the proposed solutions. Trotter and Associates has completed more than 50 wastewater facility plans.

Rate Studies and Infrastructure Planning

As infrastructure ages, new regulations come into play, and communities grow and require infrastructure expansion, it is important for municipalities to maintain user rates, tap-on fees, and surcharges that are able to cover the project work required to keep up with ever-changing infrastructure requirements. As part of all capital improvements planning (water master planning, wastewater facility planning, stormwater master planning, pavement condition analysis, project plans), TAI typically includes a capital improvements plan and "user rate impacts" analysis.

In recent years, TAI has completed a user rate study for the Northern Moraine WRD and Village of Algonquin as part of their Master Planning, and standalone rate study documents for the Village of Glendale Heights and the Village of Fox Lake. The study will generally include four main components:

- **Revenue Requirements** - Development of the full cost of providing water, sewer and WWTP service
- **Revenue Projections** – Establish the estimated annual revenue produced under the current structure.
- **Rate Structure Modifications** - Development of a financial plan to fund system revenue requirements.
- **Customer Impacts** - Document the impact of any potential modifications on customers.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Regulatory Experience

Trotter and Associates, Inc. has an outstanding relationship with Illinois EPA including permitting, finance, compliance and the regional office. TROTTER also maintains an outstanding relationship with the U.S. Army Corps of Engineers, DNR and MWRD, as well as environmental advocacy groups such as the Conservation Foundation and Sierra Club. TAI is heavily involved in shaping national and regional water quality policy. TROTTER has:

- Permitted hundreds of water / wastewater projects through Illinois EPA
- Assisted clients with **over 45 NPDES Permit** renewals
- Completed **over 50 Water and Wastewater Master Plans** and gained approval from Illinois EPA
- Received funding through the Illinois EPA revolving program for **over 60 projects**
- Negotiated **variances** and **commitment agreements** with Illinois EPA Compliance Section

Project Funding Experience

Utility infrastructure is typically supported by user fees. As a result, improvements are financed through replacement funds, revenue bonds, state revolving fund low interest loans, and grants. Trotter and Associates, Inc. has extensive experience with each of these funding vehicles. In fact, TROTTER has secured more than **$412 million** in funding through the SRF loan program over the last 24 years.

TROTTER's experience with the low interest loan program and ability to expedite those projects resulted in TROTTER's clients receiving loan commitment letters for over **$400 million**, saving over **$7.5 million** in principal forgiveness as well as an additional **$10.4 million** in interest charges over the past 25 years.

Since 2017, the Illinois EPA Loan Program has been modified to incorporate debt forgiveness under a variety of programs. Over the last three years, TAI has successfully applied for these programs, and the result has saved our clients almost **$11 Million in reduced interest and debt forgiveness.** TAI has an excellent relationship with the IEPA and has assisted numerous clients with IEPA Project Planning for specific projects.

TAI State Revolving Fund Low Interest Loan Program Projects

Year	Community/Project	Loan Value
	1999 - 2021 Loan Projects (38 Total)	$271.0 million
2021 - 2022	St. Charles/Well 7 & 13 Interconnect	$7.3 million
2021 - 2022	St. Charles/Riverside Pump Station Replacement	$16.7 million
2021 - 2022	Northern Moraine WRD/Holiday Hills Sewer Extension Phase 1	$5.3 million
2022 - 2023	North Chicago/16th St. and Kemble Ave. Transmission Main	$10.5 million
2022 - 2023	Glendale Heights/Water Supply Facilities	$3.1 million
2022 - 2023	Batavia/ Wastewater Treatment Facility Phase 2A Rehab	$38.0 million
2022 - 2023	Glendale Heights/Phosphorus Removal Improvements	$12.3 million
2022 - 2023	Sycamore/Well 7 Radium Treatment	$5.5 million
2023 - 2024	Fox Lake/Lead Service Line Replacement Phase 1	$2.8 million
2024 - 2025	Fox Lake/Lead Service Line Replacement Phase 2	$3.0 million
2024 - 2025	Fox Lake/Well No. 9 Drilling	$1.4 million
2024 - 2025	Roselle/Botterman WWTP	$12.9 million
2024 - 2025	St. Charles/Well No. 14 Drilling and Development	$1.7 million
2024 - 2025	St. Charles/Ohio Avenue and Kautz Road Raw Water Main	$3.5 million
2024 - 2025	St. Charles/Well No. 8 WTP Rehabilitation	$8.8 million
2025 - 2026	North Chicago/Water Tower No. 1 and Transmission Main *(pending loan agreement)*	$7.5 million
2025 - 2026	North Chicago/Lead Service Line Replacement Program *(pending loan agreement)*	$2.2 million
	Total TAI IEPA SRF Funding (1999 - 2025):	**$412.5 million**

TAI Grant Program Projects

Year	Grant Program	Community / Project	Grant Value
		2010 - 2021 Grant Projects	$ 26,609,202
2022	CDBG	NMWRD - Holiday Hills/Le Villa Vaupell Sewer Extension	$ 96,364
2022	McH. Co. ARPA	NMWRD - Holiday Hills/Le Villa Vaupell Sewer Extension	$ 2,000,000
2022	Senate APPN	City of North Chicago/Lead Service Line Replacement	$ 500,000
2022	DCEO	City of North Chicago/Public Subdivision Improvements	$ 2,000,000
2023	CDS - USEPA	Village of Hanover Park/2022 UV Replacement	$ 600,000
2023	CDS - USEPA	NMWRD - Holiday Hills/Le Villa Vaupell Sewer Extension	$ 2,500,000
2023	CDS - USEPA	NMWRD - WWTP Emergency Power Upgrades Project	$ 250,000
2023	CDS - USEPA	North Chicago Lead Service Line and Water Main Replacement	$ 500,000
2023	AbbVie	Sanitary Sewer CIPP Lining - AbbVie	$ 645,000
2024	AbbVie	Foss Park Underpass Retaining Wall - AbbVie	$ 147,000
2024	Senate APPN	City of North Chicago/Sheridan Landing Remediation Project	$ 2,000,000
2024	CDS - USEPA	NMWRD - Holiday Hills/Le Villa Vaupell Sewer Extension	$ 959,752
2025	Congress CPF	City of North Chicago/Lead Service Line and Water Main Replacement	$ 1,500,000
2025	IDOT (LPF)	City of North Chicago/Argonne Drive Reconstruction Project	$ 7,000,000
2026	IEPA	Village of Fox Lake - Construct the Well No. 9 Water Treatment Facility	$ 10,800,000
2026	IEPA	Village of Fox Lake - Construct the Well No. 8 Drilling	$ 3,450,000
2026	IEPA	Village of Fox Lake - Construct the Well No. 8 Water Treatment Facility	$ 750,000
2026	CDS - USEPA	Village of Fox Lake NWRWRF Screening Replacement	$ 1,092,000
2026	CDS - USEPA	NMWRD - Holiday Hills/Le Villa Vaupell Sewer Extension	$ 1,092,000
2026	CDS - USEPA	NMWRD - Darrell Road Collection System - Phase 1A Headworks	$ 1,092,000
2026	IEPA	NMWRD - Solar Array	$ 1,800,000
2026	DCEO	City of North Chicago - Street and Alley Rehabilitation	$ 740,000
2026	IDOT-SPR	North Chicago/Waukegan - Sheridan Road_IL 137 Corridor Feasibility Study	$ 500,000
2026	CDBG	City of North Chicago - Sanitary Sewer Lining Program	$ 332,804
2026	CMAQ	City of North Chicago - Sheridan Road Bike Path (MLK Drive to 24th Street)	$ 340,000
		Total Value – TAI Grant Funded Projects	**$ 69,296,122**

HOT UPDATE – TROTTER clients on the revolving loan program will receive over $175 Million in funding in FY 2027

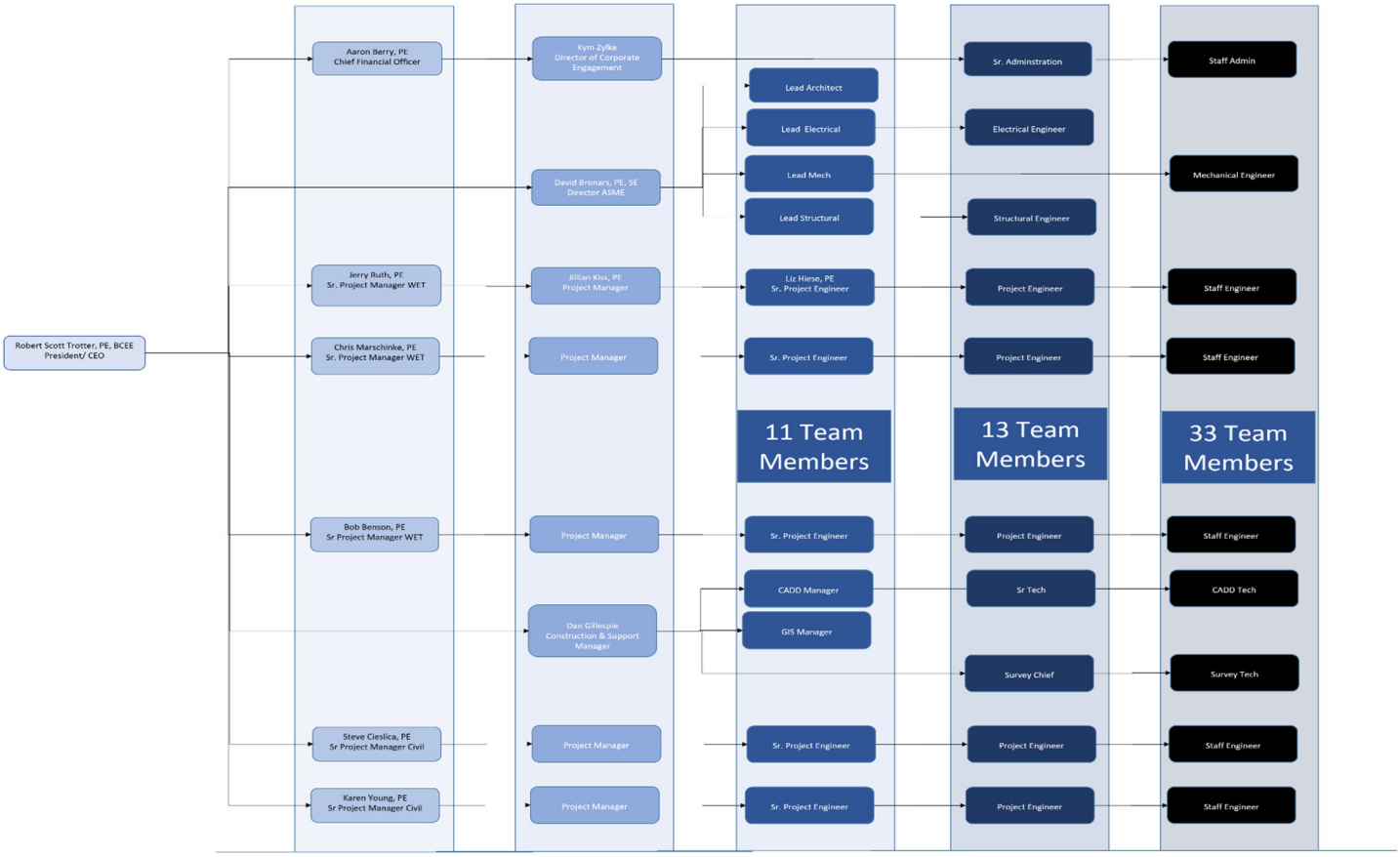


PROJECT PERSONNEL & EXPERIENCE

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Firm Organization and Ownership

Trotter and Associates is structured to meet the growing needs of our municipal clients. Each project team is hand-picked based on their skills, experience and expertise, and how those attributes can further assist our clients in achieving their project goals. With over 70 professionals, **TROTTER**'s staff includes 20 licensed engineers, 23 engineers-in-training, as well as Architectural, Structural, Mechanical, and Electrical engineers, GIS, Survey, and CAD support services all in-house.



Trotter and Associates is a privately held Subchapter S Corporation incorporated in the State of Illinois. The firm's strategic plan is based on three critical objectives:

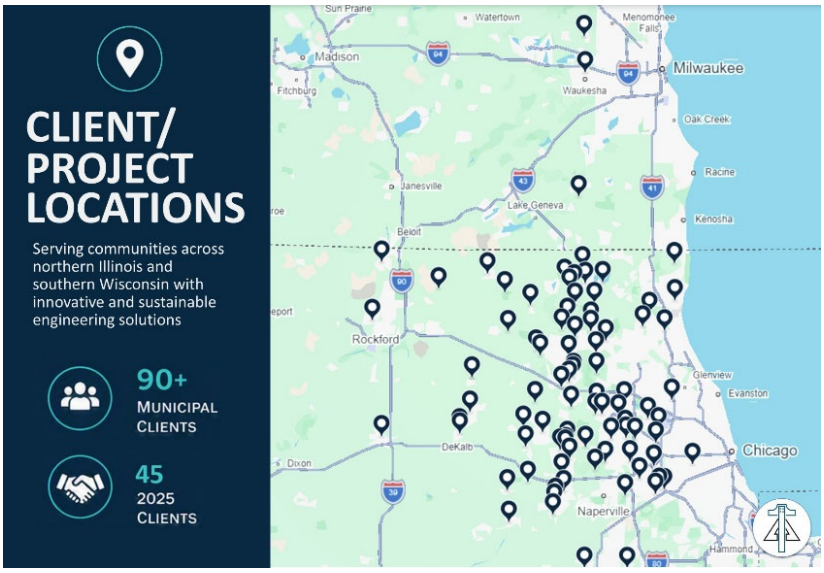
- ***Nurture External Relationships***
- ***Enhance the Expertise of the Team***
- ***Guarantee Operational Stability***

The last objective speaks to the financial strength of the firm and its internal transition of ownership. **TROTTER** developed an internal transition plan in 2018 which lays out a 25-year transition from the founders to the second generation of owners. The same structure will be viable for future generations as well. While Scott Trotter still retains the majority holdings, the firm currently has nine additional shareholders with more being added each year. The make-up of the ownership provides balance and maintains the longevity of the firm. The new shareholders are selected from the leadership team within the firm, taking into account their commitment to our strategic goals and success in the industry.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

TAI Client Base

Trotter and Associates is a municipal engineering firm dedicated to finding solutions that best serve the public interest. TROTTER's clients know that our professionals not only possess the technical expertise to address their immediate needs but can also see the bigger picture and develop solutions that are consistent with the community's long-term goals.



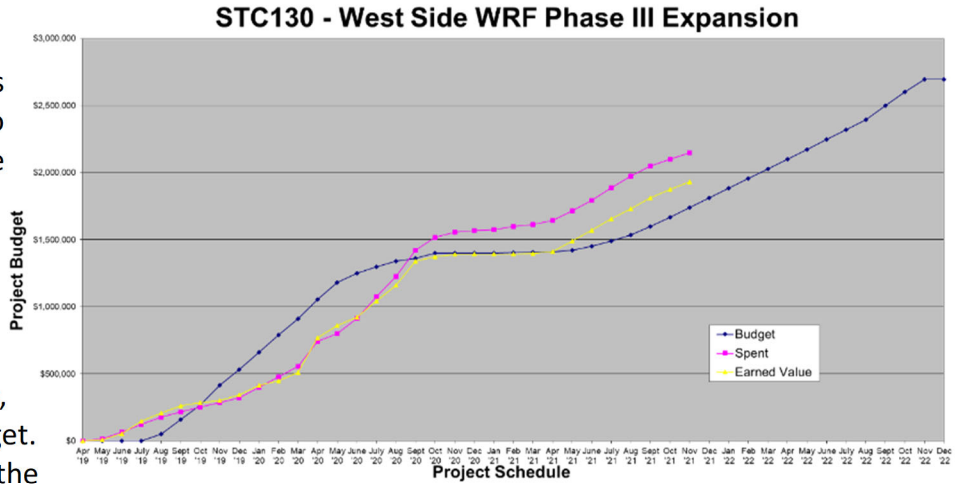
Trotter and Associates has completed over $140 Million in engineering services, of which more than 90% was provided to public sector clients. TROTTER's private sector work is limited to private utilities and rail companies.

Regulatory Actions, Litigation and Insurance

TAI has no regulatory actions, litigation on work performed and maintains insurance coverage including, but not limited to professional liability and errors and omissions. A copy of our policy can be provided.

Firm Capacity

Trotter and Associates places a premium on our ability to complete projects within the agreed upon schedule. Our project managers utilize an earned value system to track progress for each project which analyzes percent complete, milestones, resources utilized, and budget. This chart is shared with the client in monthly reports to keep them informed of actual progress and to maintain open communications regarding decisions or actions necessary to complete the project on time. This process allows us to effectively manage each project and to take corrective action on a timely basis, as well as recognize when additional resources are required to meet our client's objectives.



Trotter and Associates' goal is to consistently increase the firm's capacity and workload by 17% per year. Our Firm has successfully met this objective for the past 27 years. TROTTER's current capacity equates to 112,000 billable hours of 152,000 total manhours. Our team manages a monthly backlog report which outlines the current projects, deadlines, committed resources for active projects, as well as future projects categorized within selected-not-booked and potential. Utilizing this system, we ensure that we are not over-committed and that our team is able to meet our committed deadlines.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Resource Management

TROTTER's organizational chart allows the flexibility to share resources effectively between project teams. We are currently managing 167 active projects. These projects are in various phases including planning, design and construction. **TROTTER** manages these projects through a well-organized team of project managers which are responsible for their specific clients.

5/18/2026	Job Name	Lit.	Lead	Local	1 Rehm - MEB289	2 Benach - SEB307	3 Benson - RWB371	4 Berry - APB332	5 Betz - CLB301	6 Blount - DYB235	7 Brosam - DSB208	8 Busch - CLB276	9 Chavez - JCC210	10 Clarke - SPC141	11 Colbert - RMC310	12 Cash - MMC335	13 Davison - MJD144	14 Davenport - EAD259	15 DeLarbe - BRD261	16 Dupree - JND169	17 Fields - LMF275	18 Frank - SGF258	19 Gillespie - DJG180	20 Graham - JTG216	21 Hansen - CMH186	22 Hoch - MTH255	23 Hattendorf - GEH1040	24 Hesse - EMH180	25 Holtkamp - TMH198	26 Hix - JAH232	27 Kiss - JSK142	28 Kwek - GCK311	29 Lennon - TCL287	30 Manley - MMM280	31 Manzchinke - CJM1226	32 Martin - PAA286	33 McNichols - DJM336	Total
					40	40	60	1	38	40	40	40	40	46	51	40	40	40	40	40	40	41	44	48	40	44	40	56	43	48	33	34	40	32	45	58	36	48	2318
ADC002	Queen of Heaven Cemetery Watermain	KRY	S																																			0
ADD013	Sewer Separation & Detention Basin	CJM	S																				8	40											1			49
ADD014	North WWTP	JMR	S							12			8				4				4		4		8			2							4	32	166
ADD015	AJL Pump Station	JMR	S																						8											16	56
ADD016	AJL Force Mains	KRY	S												8																						28
ALG038	WWTF Biosolids Handling	JGA	S																												2						30
ALG045	High Hill Sanitary Sewer	TMH	S																																		0
ALG048	Algonquin Shores Lift Station Rehab	JGA	S																																		0
ALG049	Janek & Wecks Water and Sewer Feasibility	TMH	S																																		8
ALG051	Woods Creek FM Replacement	TMH	S																										4								8
AQU009	Candlewick Lake Well No. 3 WTP	RWB	N				16				4																16								16		52
ATR009	Township GIS Services	SPC	N																																		0
BAT031	WWTF Phase 2A Improvements	JMR	S	x													8						1														21
BAT037	WWTF Phosphorus Reduction	JMR	S																																		2
BAT038	WWTF Biological Upgrades	JMR	S																						4												24
BUR002	City of Burlington - Gen Eng	RWB	N																																		0
BUR008	Phosphorus Removal Pilot Study	RWB	N																																		0
BUR009	Digester Mixing System Replacement	RWB	N																																		0
BUR010	HWY 31 Lift Station Replacement	RWB	N																																		0
BUR011	Well 9 Electrical Improvements	RWB	N															4																			4
BUR012	Wastewater Master Plan	RWB	N																																		0
BUR013	Bohner's Lake Sanitary District IGA	RWB	N																																		0
BUR014	Kirk Lift Station Replacement	RWB	N																																		0
BUR015	WWTF Boiler Replacement	RWB	N															6																			6
BUR016	Well 11 Rehabilitation	RWB	N																																		0
BUR017	CMOM Update	RWB	N															1																			1
BUR018	Risk and Resilience / Emergency Reponse Plan	RWB	N															1																			1
BUR019	Well 8 Generator	RWB	N																																		0
CCL012	WWTF #2 & 3 Disc Filters & Rehabilitations	CJM	S																																2		6
CNC001	City of North Chicago - General Eng	SPC	N																																		0
CNC001.2025/26	General Eng	SPC	N						5					10																							25
CNC001.G.2025/26	City Grants	SPC	N																																		10
CNC001.GIS.2025/26	GIS Updates	SPC	N																																		0
CNC001.WO206	Marion Jones Redevelopment	SPC	N																																		0
CNC002.WO159	2025 MFT Road Program	SPC	N																																		20
CNC002.PW.2025/26	PW City Streets 2024/2025	SPC	N						10					15																							50
CNC003-San.2025/26	PW Sanitary Sewer 2024/2025	SPC	N																																		5
CNC004.2025/26	PW Water System 2024/2025	SPC	N																																		20
CNC004.WO149	Broadway Avenue Water Main Replacement	RWB	N						15																												15
CNC004-WO104	Water Asset Collection Survey	SPC	N																																		0
CNC004-WO58	WTP Building and Grounds Imp	SPC	N																																		0
CNC004-WO148.E	LSLR Phase 1 - Construction	x	RWB	N			4																														19
CNC004-WO153	Filters B-11 Rehabilitation		RWB	N																																	0
CNC004-WO157	Source Water Protection Plan		RWB	N																																	0
CNC004-WO158.E	Water Tower No. 1 and Transmission Main - Construction	x	RWB	N			4																														24
CNC004-WO159	Filter Rehab Project Planning Report	x	RWB	N		24	8																														8
CNC004-WO160	WTP Lift Station and Force Main		RWB	N																																	0
					40	40	60	1	8	8			16	16				28		10	32									4				8	20			250
					40	40	60	1	38	40	40	40	40	46	51	40	40	40	40	40	40	41	44	48	40	44	40	56	43	48	33	34	40	32	45	58	36	48	2310

TROTTER's team reviews active projects, deadlines, workload, and resource allocation every Monday morning to ensure we are meeting our client's needs and goals. Accurate tracking of the City's project on a weekly and monthly basis, coupled with the flexibility to share resources between teams means that TAI can ensure the City of Geneva 2026 Water and Sewer Rate Study and Integrated Infrastructure Master Plan will be completed on time and within budget.

Water Engineering Services

A public official's charge is to invest their community's limited resources wisely. That serious responsibility includes decisions regarding improvements to the community's water system, which protects public health, enhances quality of life, is instrumental in fire protection, and supports economic growth within the community.

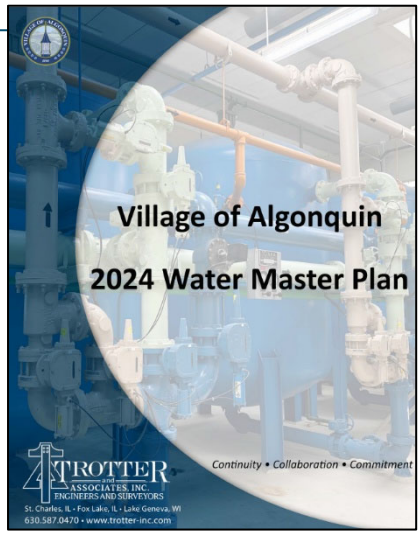
As our clients continue to redevelop and/or grow, there is a need to address reliability of the aging infrastructure as well as improve water quality and the efficiency of the system. Complicating these issues are new and pending requirements with respect to lead and copper regulations. As building codes and ISO Ratings have evolved, older distribution systems are often inadequate to meet the conveyance requirements of updated fire flows. To balance these competing demands, communities must invest into more efficient technologies such GIS, asset management and modeling to identify critical infrastructure and develop a strategic approach to enhance reliability.

Trotter and Associates, Inc. has become highly respected for successfully planning, designing and implementing a wide range of water and wastewater infrastructure solutions. Our team of professionals work closely with our clients, enabling staff and elected officials to make informed decisions concerning the improvements to be implemented. TAI's team will find the strengths of the existing infrastructure and maximize those in development of solutions that fit the community's long-term needs. TAI provides a comprehensive suite of water engineering services including:

- **Water System Master Planning**
- **Regulatory Evaluation and Compliance Reporting**
- **Program Management and Design of Water Distribution Upgrades**
- **Distribution System Modeling and ISO Rating support**
- **GIS, Data Collection and Asset Management**
- **Design of Elevated Storage, Ground Storage and Booster Station**
- **Rehabilitation and Replacement of Water Treatment Infrastructure**

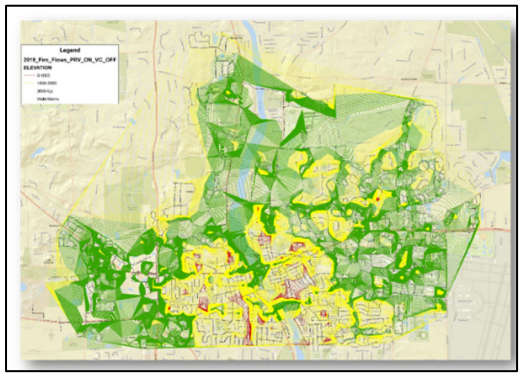
PROJECT PERSONNEL & EXPERIENCE CONTINUED

Water System Master Planning and Modeling



Trotter and Associates, Inc. has developed Water System Master Plans for a number of communities in northern Illinois. TAI's formula for success includes a comprehensive review of the existing infrastructure, working closely with the operational staff, development of specific solutions, and preparation of concise reports. Trotter and Associates, Inc. team possess practical experience and expertise to analyze all components of the existing infrastructure including water supply, storage, booster stations, water treatment facilities as well as distribution systems with multiple pressure zones.

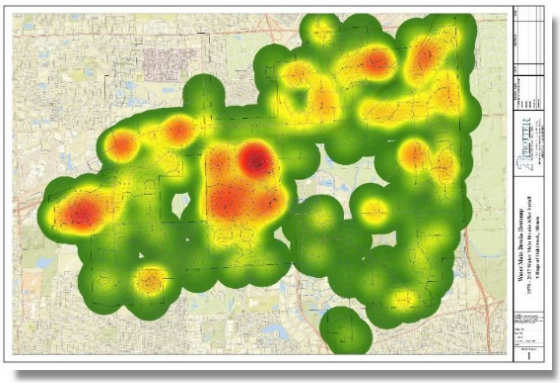
Master Planning is an important element in the development of water systems, as this phase establishes the basis from which all future decisions should be made. Trotter and Associates' process is a cooperative effort between our team and City staff to develop a comprehensive analysis of the distribution system, as well as water supply, treatment and storage facilities. Each of these aspects will be reviewed with respect to current rehabilitation needs, pending regulatory issues, and future capacity requirements. The plan typically concludes with recommendations, financial impact analyses, implementation schedules, as well as identification of funding sources.



Our team combines our expertise in water system modeling with GIS data management to evaluate the distribution system and identify critical infrastructure and project specific solutions. This evaluation includes reviewing age of the infrastructure, mapping break history, identifying water quality complaints, lead service locations, available fire flow, etc. to provide a comprehensive overview of the distribution system's strengths and limitations. With this data available we invest the time to analyze potential solutions and identify projects that will resolve issues cost effectively. This data is utilized during development of the Capital Improvements Plan to prioritize projects and identify their impact on the community's infrastructure. Ultimately, TAI provides a product that demonstrates the system's strength, weaknesses, needs, and solutions to elected officials and the public.

Water System Modeling

TAI's professionals currently utilize WaterCAD V8i/WaterGEMS which is the latest version of the Bentley modeling software. TAI often maintains, updates, and provides ongoing analysis for communities to address the potential impacts of infrastructure improvements or pending development. In addition, TAI provides modeling in support of the community's efforts with respect to updates of the ISO reports. Recently, TAI has added the software's capability to predict water age and the influence of different water sources throughout the distribution system.



PROJECT PERSONNEL & EXPERIENCE CONTINUED

Wastewater Engineering Services

Trotter and Associates has the wastewater engineering expertise required to resolve the complex issues brought on by increased development, a changing regulatory environment, and aging infrastructure. Our team is heavily involved in local, state, regional, and national organizations that specialize in wastewater collection, treatment, and disposal. TROTTER's staff has served in leadership roles within the Water Environment Federation, American Water Works Association, and the American Public Works Association. In addition, the firm is closely aligned with academia and the Water Environment Research Foundation which is actively pursuing the development of treatment processes for the advancement of our industry.



Village of Fox Lake NWRWRF

Village of Algonquin WWTP

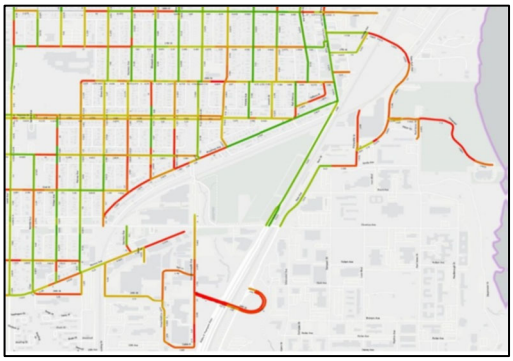
Glenbard Wastewater Authority

City of St. Charles Main WWTP

TROTTER's professionals are helping to shape national policy as well as advance the best technologies, operational techniques, and management strategies for collection systems, treatment facilities, and watersheds. As such, our staff is on the leading edge of pending environmental legislation and advancements that assist our clients in meeting the demands of their community. TROTTER has become highly respected for successfully planning, designing, and implementing a wide range of wastewater infrastructure solutions. TROTTER understands that each community's infrastructure is unique and that its design has been influenced by a variety of factors including the rate of development, regulatory issues, and operational preference. Aside from having experience with a variety of alternative solutions, TROTTER's professionals have a comprehensive understanding of the building blocks essential to design wastewater infrastructure including:

- **Biological, physical, and chemical processes for removal of contaminants and nutrients.**
- **Mechanical engineering for the selection, proper installation, and maintenance of systems.**
- **Hydraulic engineering to ensure operation over a wide range of conditions.**
- **Program Management and Design of Sanitary Distribution Upgrades**
- **Program Management and Design of Lift Station Upgrades**

Pavement Evaluation Services



Our pavement evaluation and roadway design services provide comprehensive assessment and engineering solutions to support the rehabilitation, reconstruction, and improvement of transportation infrastructure. Services include field inspections, pavement condition assessments, distress surveys, and evaluation of existing roadway geometry, drainage, and traffic operations. Data collected during the evaluation process is analyzed to identify deficiencies, determine remaining pavement life, and develop cost-effective maintenance or rehabilitation recommendations. See resumes for specific project examples

Wastewater Facility Plans

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Facility Evaluations and Master Planning

Trotter and Associates has developed Water and Wastewater Facility Plans and Master Plans for numerous communities throughout the region for water, wastewater, stormwater and roadways. Our comprehensive approach consists of evaluating existing infrastructure, working closely with the operational staff, developing specific solutions, and preparing concise reports. The final report provides the elected officials, as well as the public, information outlining the existing treatment system's strengths, limitations, needs, and solutions, ultimately allowing the elected officials to make well educated decisions about future projects.

City of Batavia (2005, 2013, 2015, 2021)
City of Harvard (2013, 2015, 2019)
City of St. Charles Main WWTP (2002, 2010, 2015, 2024)
City of St. Charles West WRF (1999, 2008, 2015, 2019, 2024)
DeKalb Sanitary District (2008, 2013)
Glenbard Wastewater Authority (2018)
Northern Moraine WRD (2004, 2015, 2024)
Village of Algonquin (2004, 2015, 2022)
Village of Bartlett (2011, 2014)
Village of East Dundee (2006, 2013, 2017)
Village of Fox Lake (2014, 2015, 2016)
Village of Glendale Heights (2018)
Village of Rockton (2015)
Village of Roselle Devlin WWTP (2002, 2017, 2020, 2025)
Village of Roselle Botterman WWTP (2002, 2017, 2020, 2025)
Wheaton Sanitary District (2013, 2017)

TAI organizes Facility Plans in a progressive format that works well with the IEPA low interest loan program. Once complete, the facility plan, master plan or project plan is organized in a format to expedite the Illinois EPA's planning approval process used to secure Low Interest Loans. TAI has successfully leveraged these planning documents to secure over $412M in low interest loans to implement the proposed solutions. Trotter and Associates has completed more than 50 wastewater facility plans.

Rate Studies and Infrastructure Planning

As infrastructure ages, new regulations come into play, and communities grow and require infrastructure expansion, it is important for municipalities to maintain user rates, tap-on fees, and surcharges that are able to cover the project work required to keep up with ever-changing infrastructure requirements. As part of all capital improvements planning (water master planning, wastewater facility planning, stormwater master planning, pavement condition analysis, project plans), TAI typically includes a capital improvements plan and "user rate impacts" analysis.

In recent years, TAI has completed a user rate study for the Northern Moraine WRD and Village of Algonquin as part of their Master Planning, and standalone rate study documents for the Village of Glendale Heights and the Village of Fox Lake. The study will generally include four main components:

- **Revenue Requirements** - Development of the full cost of providing water, sewer and WWTP service
- **Revenue Projections** – Establish the estimated annual revenue produced under the current structure.
- **Rate Structure Modifications** - Development of a financial plan to fund system revenue requirements.
- **Customer Impacts** - Document the impact of any potential modifications on customers.

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Regulatory Experience

Trotter and Associates, Inc. has an outstanding relationship with Illinois EPA including permitting, finance, compliance and the regional office. TROTTER also maintains an outstanding relationship with the U.S. Army Corps of Engineers, DNR and MWRD, as well as environmental advocacy groups such as the Conservation Foundation and Sierra Club. TAI is heavily involved in shaping national and regional water quality policy. TROTTER has:

- Permitted hundreds of water / wastewater projects through Illinois EPA
- Assisted clients with **over 45 NPDES Permit** renewals
- Completed **over 50 Water and Wastewater Master Plans** and gained approval from Illinois EPA
- Received funding through the Illinois EPA revolving program for **over 60 projects**
- Negotiated **variances** and **commitment agreements** with Illinois EPA Compliance Section

Project Funding Experience

Utility infrastructure is typically supported by user fees. As a result, improvements are financed through replacement funds, revenue bonds, state revolving fund low interest loans, and grants. Trotter and Associates, Inc. has extensive experience with each of these funding vehicles. In fact, TROTTER has secured more than **$412 million** in funding through the SRF loan program over the last 24 years.

TROTTER's experience with the low interest loan program and ability to expedite those projects resulted in TROTTER's clients receiving loan commitment letters for over **$400 million**, saving over **$7.5 million** in principal forgiveness as well as an additional **$10.4 million** in interest charges over the past 25 years.

Since 2017, the Illinois EPA Loan Program has been modified to incorporate debt forgiveness under a variety of programs. Over the last three years, TAI has successfully applied for these programs, and the result has saved our clients almost **$11 Million in reduced interest and debt forgiveness.** TAI has an excellent relationship with the IEPA and has assisted numerous clients with IEPA Project Planning for specific projects.

TAI State Revolving Fund Low Interest Loan Program Projects

Year	Community/Project	Loan Value
	1999 - 2021 Loan Projects (38 Total)	$271.0 million
2021 - 2022	St. Charles/Well 7 & 13 Interconnect	$7.3 million
2021 - 2022	St. Charles/Riverside Pump Station Replacement	$16.7 million
2021 - 2022	Northern Moraine WRD/Holiday Hills Sewer Extension Phase 1	$5.3 million
2022 - 2023	North Chicago/16th St. and Kemble Ave. Transmission Main	$10.5 million
2022 - 2023	Glendale Heights/Water Supply Facilities	$3.1 million
2022 - 2023	Batavia/ Wastewater Treatment Facility Phase 2A Rehab	$38.0 million
2022 - 2023	Glendale Heights/Phosphorus Removal Improvements	$12.3 million
2022 - 2023	Sycamore/Well 7 Radium Treatment	$5.5 million
2023 - 2024	Fox Lake/Lead Service Line Replacement Phase 1	$2.8 million
2024 - 2025	Fox Lake/Lead Service Line Replacement Phase 2	$3.0 million
2024 - 2025	Fox Lake/Well No. 9 Drilling	$1.4 million
2024 - 2025	Roselle/Botterman WWTP	$12.9 million
2024 - 2025	St. Charles/Well No. 14 Drilling and Development	$1.7 million
2024 - 2025	St. Charles/Ohio Avenue and Kautz Road Raw Water Main	$3.5 million
2024 - 2025	St. Charles/Well No. 8 WTP Rehabilitation	$8.8 million
2025 - 2026	North Chicago/Water Tower No. 1 and Transmission Main *(pending loan agreement)*	$7.5 million
2025 - 2026	North Chicago/Lead Service Line Replacement Program *(pending loan agreement)*	$2.2 million
	Total TAI IEPA SRF Funding (1999 - 2025):	**$412.5 million**

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2026	CDS - USEPA	NMWRD - Holiday Hills/Le Villa Vaupell Sewer Extension	$ 1,092,000
2026	CDS - USEPA	NMWRD - Darrell Road Collection System - Phase 1A Headworks	$ 1,092,000
2026	IEPA	NMWRD - Solar Array	$ 1,800,000
2026	DCEO	City of North Chicago - Street and Alley Rehabilitation	$ 740,000
2026	IDOT-SPR	North Chicago/Waukegan - Sheridan Road_IL 137 Corridor Feasibility Study	$ 500,000
2026	CDBG	City of North Chicago - Sanitary Sewer Lining Program	$ 332,804
2026	CMAQ	City of North Chicago - Sheridan Road Bike Path (MLK Drive to 24th Street)	$ 340,000
		Total Value – TAI Grant Funded Projects	**$ 69,296,122**

HOT UPDATE – TROTTER clients on the revolving loan program will receive over $175 Million in funding in FY 2027

PROJECT PERSONNEL & EXPERIENCE CONTINUED

Project Team

TROTTER has developed project team ready to take the 2026 Water and Sewer Rate Study and Integrated Infrastructure Master Plan from concept through proposed rate structure. Karen Young, P.E., CFM will serve as Senior Project Manager and primary contact for the City of Geneva. She has an in-depth understanding of municipal engineering projects, municipal operations and the importance of a partnership with the City, having served most of her career in the municipal sector both in engineering and public works. This management style ensures a seamless workflow and refines quality of final deliverables. Resumes for the key employees are located in Appendix A with projects and deadlines.

VIALYTICS is an intelligent road management platform designed to improve infrastructure maintenance for engineers and agencies. It utilizes artificial intelligence to analyze road conditions, automatically capturing images with GPS data and classifying damage types. Photos are taken every 10 feet, the system logs each image with GPS data and timestamps, then uses AI to detect pavement issues like cracking, patches, and surface wear. The platform provides a centralized system for managing road maintenance tasks, allowing for efficient planning and resource allocation. The output of the data gathered is clear, consistent, and up-to-date insights into road conditions without the need for extensive manual assessment. Data results are objective, consistent, and ready to use for planning and work orders. This work will be completed by Trotter.



Relevant Water Planning Experience

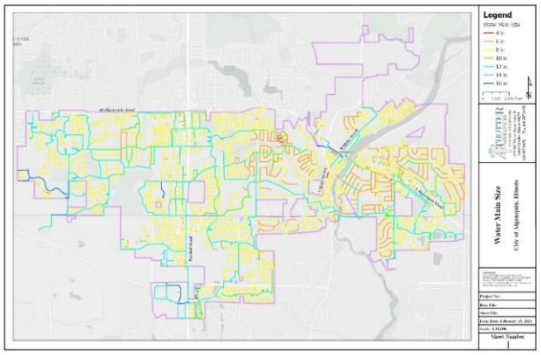
Trotter and Associates has completed more than 50 Utility Master Plans over the past 20 years. While all these Plans included community-specific evaluations, each included providing regulatory compliance evaluations and developed the steps necessary to meet regulatory guidelines as they continue to evolve. They also included development of Capital Improvements Plans, and reviewing user rate impacts and other funding mechanisms for proposed projects. Over the past five years, this has increasingly included development of water main replacement programs with prioritization given to lead service replacements.

TAI has worked with staff at each community to build replacement and rehabilitation programs based on each municipality's available funding and individual goals. Our extensive experience in infrastructure programming, coupled with our collaborative approach to plan development has built our reputation in the industry as uniquely suited to assist communities in completing these compliance services. Below and following is an abbreviated list of drinking water planning projects over the last 5 years which included development of programmatic infrastructure replacement and capital improvement planning, as well as Client references.

Client	Relevant Work	Contact Information
Village of Algonquin	**2024 Water Master Plan** Create Hydraulic Model Facility Condition Assessments Develop Water CIP	Cliff Ganek Village Engineer (847) 658-2700 CliftonGanek@algonquin.org
City of Burlington, WI	**2025 Water Master Plan** Create Hydraulic Model from GIS Water Main Upgrades Prioritization Develop Water CIP	Howard Moser Director of Public Works (262) 342-1181 hmoser@burlington-wi.gov
City of Des Plaines	**2020 Water System Study** Create Hydraulic Model from GIS & Field Calibrate Review Alternate Water Sources / Transmission Main Water Quality / Residual Analysis	Tim Watkins Director of Public Works (847) 391-5390 twatkins@desplainesil.gov
City of North Chicago	**2021 Water System Master Plan** Surface Water Treatment Plant Expansion Address Water Quality Concerns with Blended Water Transient Analysis for Main Break Mapping	Mayor Leon Rockingham, Jr. Mayor (847) 596-8610 leoroc@northchicago.org
City of St. Charles	**2024 Water Utility Master Plan** Siting / Development of a New Supply Well Muncipal-Scale Water Softening Evaluation Hydraulic Modeling	Peter Suhr Director of Public Works 630-377-4405 psuhr@stcharlesil.gov
Village of Roselle	**2025 Water Utility Master Plan Update** Future Capacity Projections & Water Needs Facility Condition Assessments Develop CIP and Funding Sources	Jason Bielawski Village Administrator 630-671-2804 jbielawski@roselle.il.us

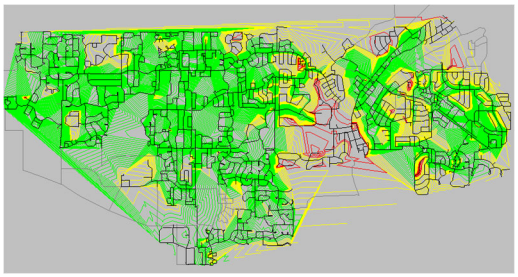
Village of Algonquin – 2024 Water Master Plan

Client Contact: Cliff Ganek, Village Engineer (847-658-2700)
Project Manager: Chris Marschinke, P.E.
Project Budget: $143,200



The Village of Algonquin owns and maintains approximately 160 miles of water main that serve the community's 30,000 residents as well as commercial, industrial, and municipal users. The Village completed a Water Master Plan in 2012 which evaluated each component of the water system. At the time, the Village's water supply was provided by nine active wells and treated by three water treatment facilities. In addition, the Village's system operated with six pressure zones separated by nine pressure reducing valves and seven booster stations that allow the transfer of water from a lower pressure zone to an adjacent higher-pressure zone.

The focus of the 2012 Plan was growth projection through planning year 2040 and identification cost-efficient supply and storage solutions to support anticipated growth. Since completion of the 2012 Plan, the infrastructure has continued to age, new regulatory issues have arisen, and the expectations for growth have changed significantly. Village staff recognized the need to recreate the existing hydraulic model of the water distribution system. As a result, the Village sought proposals to complete a 2024 Water Master Plan and ultimately selected Trotter and Associates.

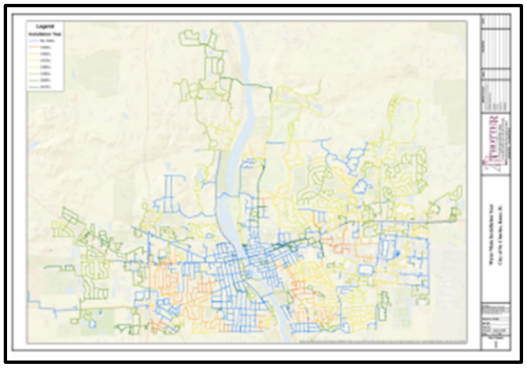


TAI has rebuilt the Village's WaterCAD/GEMS model such that it is suited for the evaluation of pending developments, ISO reports, and analysis for proposed capital improvement projects. Specifically, the Village is concerned with the Algonquin-Cary planning area outlined in the 2021 Algonquin-Cary Subarea Plan and other potential subdivision developments. The model is being used to identify areas of low fire flow, as well as identify any efficiencies that could be implemented to simplify the relatively complex pressure zone system. Conceptual level designs and cost estimates were developed for recommended distribution system improvement projects in a manner which can easily and clearly be integrated into the Village's capital program. A prioritization matrix was utilized to objectively evaluate and rank the distribution system improvements. This will include coordinating proposed distribution system projects with the Village's roadway rehabilitation program, as well as sanitary sewer improvement projects.

Additionally, TAI reviewed the existing supply, treatment, and storage infrastructure of the Village's water system. This includes site visits to each facility to document historical operational or control issues. Condition Assessment Tables which detail the installation year, condition, and replacement/rehabilitation timeframe are provided for each piece of major equipment. Conceptual cost estimates and designs are provided for any recommended infrastructure upgrades or rehabilitations as well as any alternative solutions to the current system, suitable to be incorporated into the Village's Capital Improvements Plan.

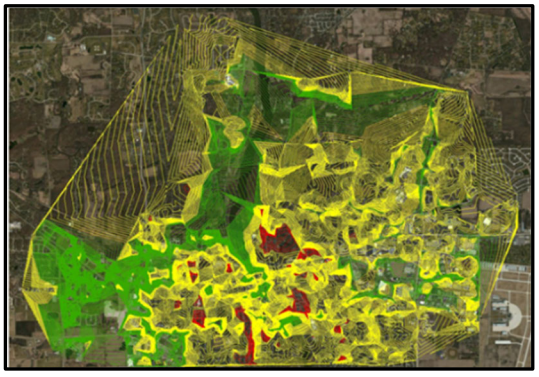
City of St. Charles – 2018/2023 Water System Master Plans & Well #7/13 Interconnect

Client Contact: Tim Wilson, Public Works Manager (630-377-4405)
Project Manager: Chris Marschinke, P.E.
Project Budget: $89,000



In 2001, Trotter and Associates prepared a comprehensive analysis of the St. Charles wells and water treatment facilities. The 2001 Water Master Plan resulted in the development of a Capital Improvements Program to meet the City's production and water quality goals. From this planning report, the City selected TAI to provide design and construction services for the recommended Oak Street Water Filtration Facility as well as the Ohio Avenue Water Filtration Facility. Subsequently, the in 2007 the City selected Trotter and Associates to develop a new Water Master Plan, with a focus on distribution system upgrades. As part of this plan, the Water Model was updated and utilized to develop a Capital Improvements Plan for the recommended distribution system improvements. These improvements were prioritized based on water main age, material, break history, soil conditions, and other criteria.

In 2018 the City of St. Charles sought to complete a new Water System Master Plan, and TAI was again selected to complete the new Plan, which included reviews of water distribution and storage, as well as in-depth evaluations of water supply and water treatment needs. Current and anticipated growth within the service area will likely necessitate drilling additional wells to maintain capacity. The City had identified consistent water quality as a top concern for the 2018 Water Master Plan. The outer service area of the system is supplied by both the deep Galesville formation (Wells #3, 4 & 8), as well as the shallow sand and gravel St. Charles formation (Wells #7, 9, 11 & 13). These aquifers produce widely varying water quality; radium exceeding 5 pCi/L in the deep wells, iron over 2.5 mg/L and hardness over 500 mg/L in the shallow wells. Therefore, some residents see fluctuating water quality depending on which well/treatment facility is running.



To mitigate this concern, TAI evaluated drilling new deep or shallow wells, blending alternatives, connection to DuPage Water Commission, and/or providing City-wide water softening. The primary recommendation was demolition of the inoperable Well #7 Gravity Filtration Plant and instead convey Well #7 to the Oak Street WTP for pressure filtration treatment of iron and manganese alongside Well #13. TAI completed the design for the "Well #7 & 13 Interconnect" project in 2022, and construction was completed in April 2024. This project restored 2.5 MGD of capacity to the system and provided operational and cost efficiencies to the regional WTP. However, the City's water demand once again met the firm well production capacity even with Well #7 returned to service. The City elected to select an engineer for a 2023 Water Master Plan to identify new water sources and treatment plants through a QBS process. The City once again selected TAI to provide these services, which included water modeling, groundwater well site identification, test drilling, and conceptual design of several regional water treatment plant solutions. The selected alternatives are prioritized for incorporation into a 10-Year CIP.

Relevant Wastewater Planning Experience

Trotter and Associates, Inc. has developed Wastewater Facility Plans for several communities in Northern IL. Our comprehensive approach consists of evaluating existing infrastructure, working closely with the operational staff, developing specific solutions, and preparing concise reports. The final report provides the elected officials, as well as the public, the essential information outlining the system's strengths, weaknesses, needs, and solutions, ultimately allowing the elected officials to make well educated decisions about future projects.

Once complete, the facility plan is organized in a format to expedite the Illinois EPA's planning approval process used to secure Low Interest Loans. TAI has successfully leveraged these planning documents to secure low interest loans and grant funding to implement the proposed solutions for our clients.

Client	Relevant Work	Contact Information
Village of Algonquin	**2022 Wastewater Facility Plan Update** Sewer Capacity Analysis and Recommendations WWTP Phase 7 Expansion (5 to 6 MGD) Lift Station Rehabilitation	Cliff Ganek Village Engineer 847-658-2700 CliftonGanek@algonquin.org
Village of Roselle	**2025 Wastewater Facility Plan Update - Botterman WRF, Devlin WWTF, and Egan Basin** Biological Nutrient Removal Clarifier Replacement Lift Station Rehabilitation	Jason Bielawski Village Administrator 630-671-2804 jbielawski@roselle.il.us
Northern Moraine Wastewater Reclamation District	**2024 Wastewater Facility Plan** Sewer Capacity Analysis and Recommendations Lift Station Assessments UV Replacement	Mohammed Haque District Manager 847-526-3300 haque@nmwrd.org
City of Batavia	**2022 Wastewater Facility Plan** Biological Nutrient Removal Headworks UV Replacement Tertiary Filtration Lift Station Assessments	Andrea Podraza, P.E. Director of Public Works 630-454-2757 apodraza@bataviail.gov
City of St. Charles	**2024 Water Utility Master Plan** Nutrient Removal Headworks UV Replacement Lift Station Assessments	Peter Suhr Director of Public Works 630-377-4405 psuhr@stcharlesil.gov
Village of Addison	**WWTP Consolidation & Combined Sewer Separation Study** Facility Expansion Facility Consolidation Nutrient Removal	Ryan Hayden Director of Public Works (630) 620-2020 Rhayden@Addison-IL.org

Village of Roselle – Wastewater Facility Plan & Devlin WWTP Expansion

Client Contact: Jason Bielawski – Village Administrator (630-980-2000)
Project Manager: Chris Marschinke, P.E.
Project Budget: $96,995 (Wastewater Facility Plan)/ $175,900 (Conceptual Design)



The Village completed a Facility Plan in 2015, and the recommendations within that plan guided the capital improvements for the Water Pollution Control Facility (WPCF). The Village's renewed NPDES permits were issued in September 2015 and included several special conditions requiring action on the Village's part. The Village has on-going projects for completion of the tasks outlined in the compliance schedules for each of the three special conditions. The 2022 Wastewater Facility Plan was completed by TAI to address capacity, rehabilitation, and regulatory requirements for each of the two plants' and the MWRDGC service areas (the resulting report consisted of three volumes).

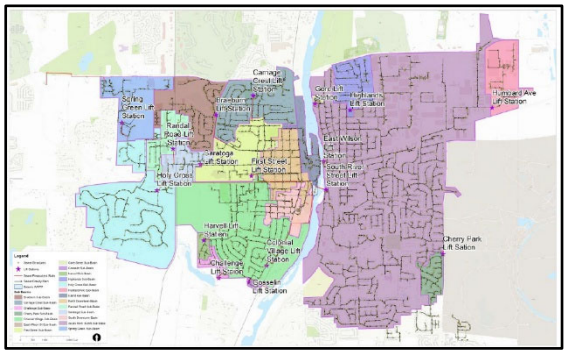
The Devlin WWTF's current design capacity is 2.0 million gallons per day (MGD) and the proposed expansion would increase this to 2.6 MGD and layout future expansion to 3.2 MGD if and when further development occurs. The plant will also be upgraded to meet proposed regulatory requirements for Total Nitrogen (TN) and Total Phosphorus (TP) removal by upgrading the existing A2O biological process for expansion and removal of TN and TP, construction of an additional aeration basin, anaerobic basin and anoxic basin, construction of a chemical feed facility, and expansion of the aerobic digestion process. These modifications were identified through BioWin™ modeling within the 2016 Phosphorus Feasibility Study and 2022 Facility Plan that were completed by TAI. The project is currently in design.

VILLAGE OF ROSELLE FACILITY PLAN IMPLEMENTATION PLAN										
Devlin Projects	**Total Cost**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Grit Rehabilitation	$2,529,7008				Design	Construction / Oversight				
					$130,000	$1,182,100	$1,217,600			
Secondary Clarifier (86')	$5,437,939				Design	Construction / Oversight				
					$582,636	$2,427,651	$2,427,651			
A2O / Expansion (w PC demo) 1.0 / 0.5 mg/L	$19,810,400	Permitting / Prelim		Design / Permitting		Construction / Oversight				
		$106,100	$109,300	$562,800	$579,700	$9,089,900	$9,362,600			
Disinfection	$6,011,700				Design	Permitting / Construction				
					$308,800	$2,809,300	$2,893,600			
Tertiary Filtration Upgrade (Ultra low P- 0.27 mg/L TP) by 2037	$7,816,000									
Building and Equipment Capital Costs		$130,000	$267,000	$73,200	$0	$36,500	$6,200	$300,000	$195,800	$0
TOTAL with inflation	$42,760,700	$236,100	$376,300	$636,000	$1,339,900	$16,207,200	$16,662,100	$300,000	$195,800	$0

City of Batavia – Wastewater Facility Plan & Phase IIA Improvements

Client Contact: Andrea Podraza – Director of Public Works (630-454-2309)
Project Manager: Jerry Ruth, P.E. Project Budget: $97,700 (Wastewater Facility Plan) / $150,300 Planning/Modeling/$2,085,000 (Phase IIA Design)

TAI completed a Wastewater Facility Plan in 2022, which reviewed the City's wastewater infrastructure, including the sewer and the wastewater treatment facility. Based on the recommendations of the 2022 Biological Modeling, and Facility Plan, the scope of the Phase IIA project at the City's Wastewater Treatment Facility was finalized and a project plan was developed for the IEPA, securing a $40 million low interest loan for construction. The scope of Phase IIA was modified to include replacement of the

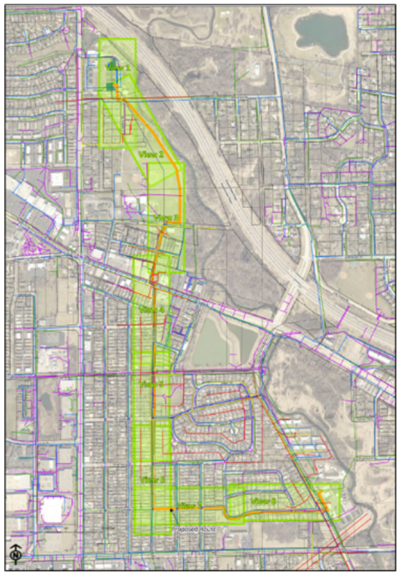


Excess Flow Facilities, replacement of the Headworks and Raw Sewage Pump Stations, replacement of the Primary Clarifiers, rehabilitation of the Final Clarifiers, replacement of the UV system, implementation of Waste Activated Sludge Thickening in preparation for Phase IIB, bike path realignment, revised hydraulic grade line for the WWTF, and offsite interceptor sewer replacement. This drastic change in design required rigorous coordination with permitting agencies and the IEPA IFAS to secure funding for Phase IIA. The project started construction in Fall 2023. In early 2024 the City requested that TAI provide an update to the 2022 Facility Plan based on the changes in scope that occurred during the design phase to set the City up for Phase IIB and Phase III to be complete by 2035. It is anticipated that these projects will be funded by IEPA Low-Interest loans.



Village of Addison - WWTP Consolidation & Combined Sewer Separation Study

Client Contact: Ryan Hayden – Director of Public Works (630-620-2020)
Project Manager: Jerry Ruth, P.E. Project Budget: $222,000



The Village of Addison owns and operates a sanitary sewer and stormwater collection system and two wastewater treatment plants (WWTP). The collection system tributary to the North WWTP is a separated (sewage only) system. The system tributary to the A.J. LaRocca facility is a combined system that receives sanitary sewage and stormwater. The Village is currently in the process of separating the sewer, however there is significant stormwater flow to the AJL WWTP. The last major rehabilitation of the plants was in the 1970's and 1980's and as such both are in need of significant rehabilitation and upgrade. Further, both facilities have phosphorus removal requirements that will require compliance over the next 10 years. The Village selected TAI through a QBS process as the preferred partner to complete a WWTP Consolidation & Combined Sewer Separation Study.



TAI evaluated two primary alternatives: independent rehabilitation and nutrient removal upgrades at both facilities or constructing a new pump station and headworks at the AJL facility, and conveying all flow to the North WWTP while expanding and upgrading the North WWTP. For each alternative TAI evaluated alternatives for biological phosphorus removal, including AO, A2O, 5-Stage Bardenpho, and sidestream RAS fermentation options. For each alternative TAI prepared detailed cost estimates, conceptual building plans, and site layouts. These

alternatives were prepared through frequent work sessions and site walkthroughs with Village staff to determine the preferred upgrades at each facility. Once the alternatives were developed, the team evaluated them through a net present value analysis of capital and O&M costs, as well as an economic/non-economic decision matrix. The evaluations, alternatives, costs, and implementation plans were compiled into a WWTP Consolidation Study that mirrors the format of TAI's Facility Plans, such that it can be submitted for funding through the Illinois EPA. The project design was completed in fall 2023 with presentation to the Board in early November.

Relevant Rate Study Experience

Trotter and Associates, Inc. has evaluated and developed rate structures for a number of communities over the past 25 years. Traditionally, each Water Master Plan and Wastewater Facility Plan that TAI completes has included a section devoted to the rate analysis. This would typically include a review of the current rate structure, determination of the future capital needs, and recommending user rates and fees capable of supporting the identified capital improvement programming.

Most recently, TAI has developed rate studies for The Village of Glendale Heights in 2023, and the Village of Fox Lake in 2024. Additionally, Trotter and Associates performed a full rate analysis for the Northern Moraine WRD and Village of Algonquin as part of their 2024 Wastewater Master Plans.

Village of Fox Lake – Northwest Regional WRF User Rate Study 2025

Client Contact: John Thompson, NWRWRF Director (847-815-7576)

Project Manager: Liz Heise, P.E.

Project Budget: $65,000

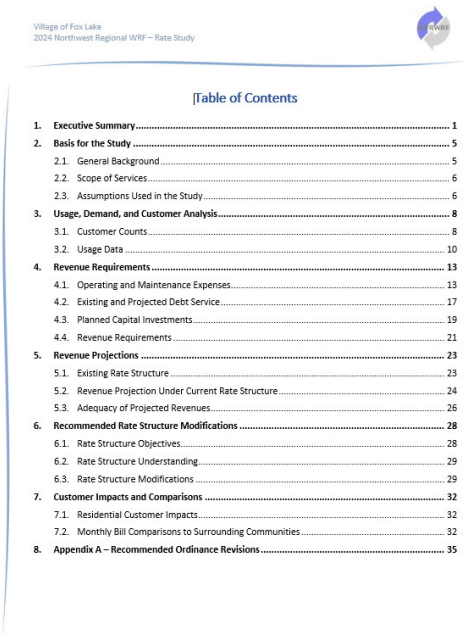

Village of Fox Lake
2024 Northwest Regional WRF – Rate Study

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The Village of Fox Lake owns and operates the Northwest Regional Water Reclamation Facility (NWRWRF), which is a 12 MGD wastewater treatment facility. This facility treats sewage from the Village of Fox Lake, as well as 12 surrounding communities. The cost to operate and maintain this WWTF is paid for through sewer user rates. The rates had not been analyzed or updated in over 20 years. Given changes in regulation, inflation, and aging infrastructure, it was anticipated that the current rates may no longer be adequate to fully fund the operation and maintenance of the WWTF in addition to financing the necessary Capital Improvements Projects. In order to address this concern, the Village chose to undertake a formal Rate Study for a ten-year study period.

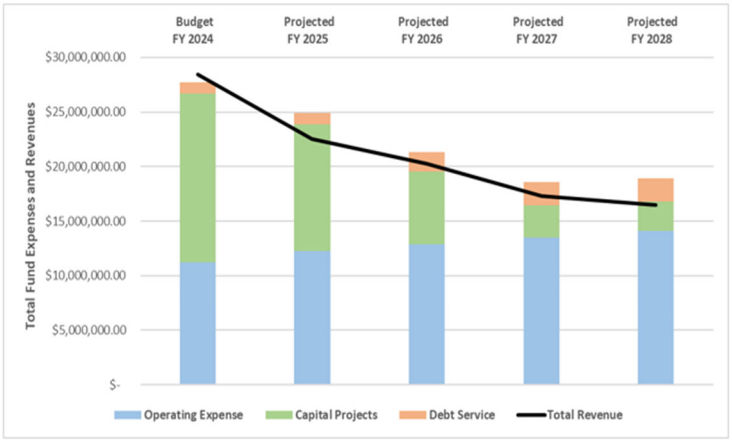
This project included an analysis of all administration, operation, and maintenance costs associated with the WWTF; an evaluation of the current rate structure to verify that it still the appropriate structure for the Village; and recommendations to changes in the rate structure (as needed) and specific rates to ensure that the rates are equitable, defensible, and meet the short- and long-term revenue requirements for each system. The project also included development of a 10- and 20-year Capital Improvements Plan, as the facility plan had not been updated with projects required to meet the most recent regulations. The project included preparation of a final NWRWRF Rate Study report summarizing the analyses and recommendations.

Village of Glendale Heights – 2023 Water and Sewer Rate Study

Client Contact: Jeff McCumber, Asst. Director of Public Works (630-942-1963)
Project Manager: Chris Marschinke, P.E.
Project Budget: $41,000

The Village of Glendale Heights owns and operates water supply and storage facilities, a wastewater treatment facility, and the associated distribution and collection systems which provide water and sewer service to the Village's residential and non-residential users. The cost to operate and maintain these facilities is paid for through water and sewer user rates. An initial analysis of the adequacy of the rate structures indicated that the current rates may no longer be adequate to fully fund the operation and maintenance of the water and sewer systems in addition to financing the necessary Capital Improvements Projects. At this time, the Village sought to undertake a formal Water and Sewer Rate Study for a five-year study period (FY2024-FY2028).

Chart 5-1: Total Environmental Fund Revenues and Expenses (FY2024 – 2028)



The Village selected TAI to complete the project, which included an analysis of all administration, operation, and maintenance costs associated with each system (water and sewer); an evaluation of the current rate structure to verify that it still the appropriate structure for the Village; and recommendations to changes in the rate structure as needed and specific rates to ensure that the rates are equitable, defensible, and meet the short- and long-term revenue requirements for each system. The project also included preparation of a final Water and Sewer Rate Study report summarizing the analyses and recommendations, and presentations to the Board on the various potential rate models.

Trotter and Associates worked with Village Public Works, Finance, and Administration to review alternative rate structures and levels throughout the project. Both direct revenue sources such as usage charges and fees were reviewed, as well as indirect sources such as home-rule sales tax and/or food and beverage taxes. TAI presented the analysis and alternatives to the Village Board and assisted in hosting several community workshops to discuss the rate options. A resident panel was utilized throughout the process to vet structure concepts and gain community buy-in of the selected structure. The open and collaborative approach to the rate study resulted in adoption of a five-year user rate structure which the community understood and supported.

Chart 7-3: Community Comparison of Water and Sewer Monthly Bills (Projected FY2028 Rates)





PROJECT APPROACH

TROTTER and ASSOCIATES, INC.
CONSULTING ENGINEERS

Transmittal Sheet

To:	Alex Voigt	**From:**	Scott Trotter
	City of Geneva		Trotter and Associates, Inc.
	City Administrator		40W201 Wasco Road
	22 S. First Street.		Suite D
	Geneva, IL 60134		St. Charles, IL 60175
	avoigt@geneva.il.us		s.trotter@trotter-inc.com

Date: July 2, 2026 **Project:** 2026 Water and Sewer Rate Stidy and Integrated Infrastructure Master Plan

Enclosed please find the following documents/information:

2	2026 Water and Sewer Rate Stidy and Integrated Infrastructure Master Plan
1	USB with digital file

The above documents/information are submitted:

X As requested	___ For your signature
___ For your approval	___ For your information and files

PROJECT APPROACH

TAI has reviewed the full scope as presented in the RFP and feel that it is comprehensive. We have summarized the scope requested into the following approach.

- **Review of Current Assets**
  - Complete an overview of infrastructure.
  - Perform critical Analysis of previous reports and recommendations.
  - Identify gaps in the City's documentation for the development of the Life Cycle Cost Analysis.
  - Evaluation of existing infrastructure including survey, field and asset inspections.
  - Review of current as well as identify anticipated EPA and other regulatory impacts.
  - Develop a skeleton CIP – How much money needs to be spent based on conceptual plans.
  - Determine infrastructure replacement costs and depreciation schedule.
  - Determine the true cost of ownership of the infrastructure.
  - Develop and submit a summary of findings as a draft report.

- **Review current operations and maintenance budgets**
  - Complete an overview of current in-house and sub-contracted responsibilities and expenses.
  - Recommend spending adjustments and optimization.
  - Develop a financial need projection.
  - Develop and submit a summary of findings as a draft report.

- **Financial Modeling**
  - Evaluate the current rate structure and reconstruct baseline financial model.
  - Update baseline model with proposed CIP and recommended O&M costs.
  - Identify and establish additional revenue ("the gap") to achieve sustainable operations.
  - Evaluate modifications to the current rate structure required to meet revenue needs, including reserves, user rates, tap on fees, eligible grants and loans for capital funding.
  - Develop a proposed rate structure.
  - Review existing codes/regulations, collaborate with village, legal team and regulatory partners to develop appropriate recommendations.
  - Develop and submit a summary of findings as a draft report.

- **Staff Collaboration & Community Education**
  - Provide staff with an overview of alternate rate structure models.
  - Work with City staff to evaluate the financial impact required to fill "the gap".
  - Develop alternate models that are more equitable for the various rate classifications.
  - Conduct a comparison of the proposed models and rates with neighboring communities.
  - Develop draft final report for review by City Staff and Elected Officials.
  - Develop and present the selected model alternatives and draft final report to the City Council and/or Committees for their consideration and feedback.

- **Reports**
  - Provide an executive summary of previous reports, recommendations and final actions for the adjustment of the existing user rates.

Management Approach

Trotter and Associates is known for our collaborative approach, basing studies, evaluations and designs on feedback received from everyone on the project team. The project will only be a success if each staff member (stakeholder) is heard throughout the process, and their preferences incorporated into the final design. Too often engineering firms will develop a design within a 'silo' and simply bring it to the Owner for approval, rather than create a project team inclusive of engineering staff and City staff members. TAI believes in holding routine work sessions to review decisions made, gain consensus on next steps, and confirm everyone's understanding of the project status.

As further detailed in the Project Team section, Karen Young will be the responsible point of contact on a day-to-day basis for the 2026 Water and Sewer Rate Study and Integrated Infrastructure Master Plan. Karen's management approach focuses on the collaborative advancement of the project, while actively tracking project schedule and budget.



QA/QC is a Daily Practice

Quality assurance programs can be elaborate, cumbersome, hefty documents with flowcharts and layers of safety checks. For the average A/E firm, the process should never be this cumbersome, and QA/QC as a "process" should not be complicated.

Even if there is a QA/QC manual somewhere in the office, it is often not used. Seasoned engineers may not reference the material because in their experience, others may not be aware that there is an official policy. The reason that QA/QC manuals are often not referenced is because QA/QC is a daily practice – or should be. Reasons for not following the practices outlined in the QA/QC manual often include not enough time, not enough money in the budget, no one to assist.

PROJECT APPROACH CONTINUED

Many A/E firms talk about quality drawings, quality solutions, and the quality of their reports as a differentiator – or understand this is the basic condition to be in business today. However, reserving time toward the end to do a worthy quality check is sadly omitted in the rush of a deadline. If the culture of the firm promotes the daily practice of QA/QC, then very few mistakes go out the door because the project team is careful every day and were selected because they are good at what they do. You don't need a QA/QC manual to instruct that.

The Intangibles

While most QA/QC procedures focus on the technical practices to be followed and the review of the technical engineering performed to control quality, they often omit the intangible aspects of the project which may be even more important to the client. The intangibles include ensuring that the client is effectively involved in critical decision making and is fully and accurately informed as to progress of the engineering work. This can only be accomplished through effective and regular communication. Intangibles also include completing the engineering efforts on-time and within the agreed budget. This can only be accomplished through regular review of progress versus schedule and budget, performed in a manner which allows the project to be effectively managed.

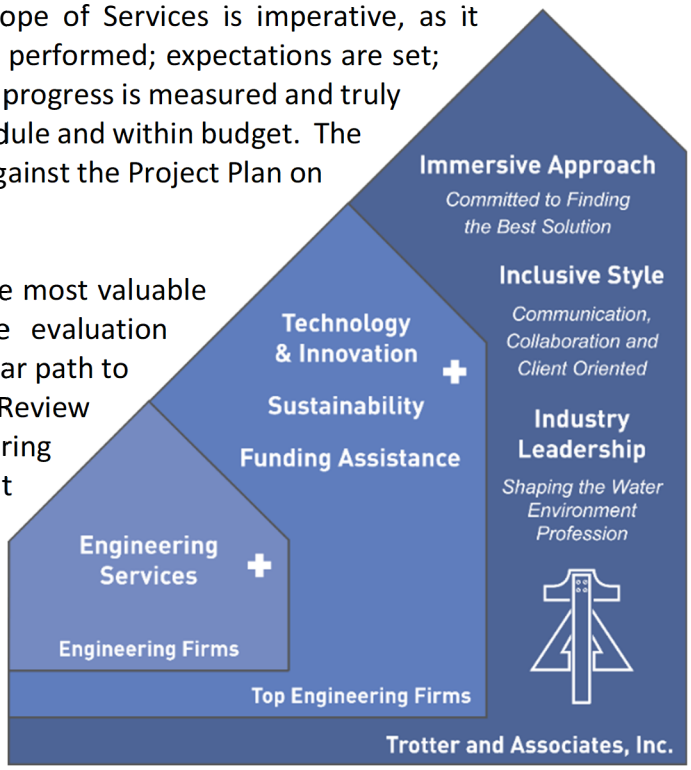
Trotter and Associates' QA/QC Approach

At TAI we believe that an effective QA/QC procedure must include the following critical components:

- Development of a thorough and accurate Scope of Services
- Negotiation of a level of effort with sufficient associated fees to perform proper QA/QC reviews
- Assignment of an experienced and qualified QA/QC Manager
- Performance of QA/QC reviews early and often, at each critical milestone
- Routine and realistic evaluation of progress against the Project Plan
- Ensuring that nothing "goes out the door" without a second, unbiased set of eyes review the work

The preparation of a thorough and agreed upon Scope of Services is imperative, as it provides the foundation upon which: the work will be performed; expectations are set; and benchmarks are established. From this foundation progress is measured and truly "managed" in a manner that keeps the project on schedule and within budget. The TAI project team will perform an analysis of progress against the Project Plan on a monthly basis at the time of invoicing.

An experienced QA/QC manager often can provide the most valuable input at the 20 or 30 percent stage, before the evaluation alternatives have progressed too far down any particular path to make a change in direction unpractical or too costly. Review of the basis of design ensures that sound engineering practice and principles are adopted for the project that will "assure" quality. Subsequent QA/QC reviews typically performed at the 60 percent and 95 percent complete milestones "control" the quality of the engineering work and ensure that the alternatives identified and the associated capital and O&M costs are complete and accurate.





APPENDIX A

R. Scott Trotter, P.E., BCEE



EDUCATION
BS Civil Engineering
University of Illinois Urbana-Champaign

EXPERIENCE
37 Years

REGISTRATIONS
Professional Engineer, P.E., IL (062-049660)
Professional Engineer, P.E., WI (45626-6)
Board-Certified Water/Wastewater Specialist (BCEE)

PROFESSIONAL ORGANIZATIONS
American Water Works Association (AWWA)

American Public Works Association (APWA)

Water Environment Federation - Past Board Member

Illinois Association of Water Pollution Control Operators (IAWPCO)

ACCOMPLISHMENTS
University of Illinois - 1999 Young Engineer Achievement Award
WEF - Achievement Award for Outstanding Service (1997, 2002, 2006, 2008, 2010)

PRESENTATIONS
U of I - Grainger College of Engineering - CEE Course Presentation Civil & Environmental Engineering

U of I - Grainger College of Engineering - CEE 421 Construction Planning

UW-Madison Interdisciplinary Professional Program Wastewater, Pumping Systems, and Lift Stations Course



PRESIDENT

Mr. Scott Trotter is a professional engineer and a board-certified specialist in water/wastewater engineering by the American Academy of Environmental Engineers (AAEE). Scott has over 37 years of experience in planning, design, and implementation of infrastructure rehabilitation, expansion, and process modification projects. As Principal Engineer, Scott oversees Trotter and Associates' water and wastewater division, providing process and design expertise, as well as quality assurance and quality control reviews of all work product.

Throughout his career, he has earned the respect of clients, regulatory officials, and contractors alike for his technical skills, work ethic, and ability to bring projects together. Scott has provided industry leadership through a number of organizations, including serving as an officer of the Central States WEA, WEF Board of Trustees, and University of Illinois CEE Alumni Board. Scott has been involved with national policy initiatives, including the USEPA integrated planning, nutrient planning, and WIFIA financing program.

RELEVANT EXPERIENCE

Facility & Master Planning and Rates – Algonquin, Batavia, Fox Lake, St. Charles, Harvard, DeKalb Sanitary District, Glenbard Wastewater, Northern Moraine, Roselle, Sycamore, etc.

Village of Addison – Expansion and Upgrade of the North Water Reclamation Facility

This project includes expansion of the North WRF from 5.3 MGD to 7.8 MGD. The upgraded plant will be capable of treating up to 15.8 MGD and an additional 30 MGD for excess flow. The project upgrades almost every aspect of the treatment train including screening, grit removal, raw sewage pumping, primary clarifiers, conversion of the two-stage nitrification process to an A2O BNR, final clarifiers, the addition of tertiary filters and UV disinfection. The primary sludge will be treated by anaerobic digestion and the waste active sludge will be stabilized through aerobic digestion.

Village of Algonquin – Phase 6B Wastewater Treatment Plant Improvements

Trotter and Associates provided planning, design, and construction engineering for a $17 Million dollar rehabilitation project. The scope of the work included upgrades to the raw sewage lift station, rehabilitation of the primary clarifiers, refit of the mixers, diffusers and primary elements within the 5 stage Bardenpho, rehabilitation and painting of the final clarifiers, replacement of the UV disinfection system, expansion of the aerobic digestion process, Replacement of the anaerobic digester covers, mixing systems and gas safety system, and replacement of the gravity belt thickeners with rotary drum thickeners for sludge thickening systems.

City of Batavia – Phase I Rehabilitation

The City received its NPDES permit, which included Phosphorus limits. TAI completed the Facility Plan and Phosphorus Removal Feasibility Study, which included an evaluation of Bio-P and Chem-P alternatives to meet 1 mg/L and 0.5 mg/L. The Phase I Rehabilitation project includes demolition of the existing administration building, construction of a new administration building, sludge handling building, chemical phosphorus removal, digester operations building, rehabilitation of the existing anaerobic digesters, and replacement of the excess flow disinfection system and SCADA improvements. Note: Scott served as resident engineer for the 1989 Improvements, and as project manager for the 1999 Expansion.

City of Batavia – Phase IIA Rehabilitation

Phase IIA includes extensive off-site rehabilitation and reconstruction includes storm, sanitary, water and electrical duct bank. The off-site also includes extensive roadway reconstruction, realignment of a regional bike path and mitigation of grade changes impacting local businesses. The plant specific work includes demolition of a excess flow clarifier, construction of a new preliminary treatment building (proving screening and grit removal), four new primary clarifiers, a primary sludge pumps station, recycle flows pump station and small influent pump station as well a rehabilitation of three final clarifiers, construction of a new UV Building, and installation of temporary sludge thickening facilities.

DeKalb Sanitary District - Phase 1A Biosolids Rehabilitation Project

Project was funded through ARRA. The improvements included rehabilitation/reconstruction of four 55-foot diameter anaerobic digesters with new mixing systems and covers as well as construction of a new digester operations building to house boiler and pumping systems. The project also included a new sludge handling building which provided WAS holding, TWAS storage, gravity belt thickeners, two centrifuges and pumping and polymer systems as well as a separate sludge storage barn. The project construction cost was in excess of $24 Million.

City of Eldridge, IA – South Slope SBR Plant Expansion

The City of Eldridge elected to regionalize their two wastewater treatment facilities due to increasingly stringent disinfection and ammonia removal requirements. This project included a doubling of the SBR plant size, new UV disinfection, a doubling of the aerobic digester capacity, new sludge dewatering and on-site storage.

Fox Lake NW Regional WRF – Plant Rehabilitation Projects

As the Village Engineer, TAI has designed and overseen the construction for several minor upgrades at the facility including “Secondary Digester Membrane Replacement,” Grit Removal Upgrades,” “Blower Replacement Project” “Screening Replacement Project” and the “Screw Pump Replacement Project.”

Village of Hanover Park – Sludge Storage Facility

The Village’s NPDES permit required that the community provide onsite sludge storage. The project included evaluation of the existing infrastructure, specifically the liquid sludge storage tanks, determining their capacity, and providing additional dewatered sludge storage onsite. The project included construction of a storage barn with underdrains and access suitable for semi-tractors.

City of Harvard - Wastewater Treatment Plant Rehabilitation

Project included upgrade of the attached growth wastewater treatment facility to a fully function BNR activated sludge system. The improvements included Upgrade of the raw sewage pumps, installation of additional fine screen capacity, replacement of the grit removal system, upgrade of the intermediate pumping facilities, installation of a three-ring oxidation ditch including separated anoxic and anaerobic zones, construction of tertiary clarifiers, construction of

aerobic digestion capacity, rehabilitation of the anaerobic digesters, and construction of a sludge dewatering facility and storage barn.

Northern Moraine WRD – Aerobic Digester Upgrades and Facility Plan

The 2.0 MGD WWTP had not been upgraded since 1998. The existing aerobic digesters were the original packaged treatment facilities. TAI gutted and rehabilitated the existing infrastructure, including structural modifications, new blowers, diffusers, and low-profile covers to increase the efficiency of the aerobic digestion process. The Facility Plan report updated past plans for current population and flow projections and studied alternatives for phosphorus removal at the 2 MGD NMWRD single stage nitrification plant. This included cost-effective comparison of chemical versus biological phosphorus removal. Based on the existing 2-ring design, the recommended alternative was to implement chemical phosphorus removal until the plant is expanded, at which time biological phosphorus removal would be implemented.

Village of Roselle – Botterman WWTP Digester Addition and Belt Filter Press Upgrades

The project included the construction of a new digester and the addition of new blowers, polymer feed system, and belt filter press. The additional digester increased retention time, and flat aluminum covers were provided to increase temperature. Combined with the Aerobic Digestion System, significantly greater VSS destruction was achieved.

Village of Roselle – Devlin WWTP Aerobic Digester Upgrades

The project included rehabilitation of the existing aerobic digestion system with new diffusers and aluminum low profile covers as well as decanting capabilities and primary elements for process control.

City of St. Charles – Ohio Avenue Water Treatment Facility

In order to maximize the capacity of the system, the City needed to treat the raw water instead of continuing the blending operations. The City and TAI selected a unique treatment approach that included a split treatment train process. Therefore, only a portion of the raw water would receive softening from ion exchange, while an HMO process would treat the balance of the water. The process has an efficiency of approximately 80% removal. The project was designed and permitted as an innovative technology.

City of St. Charles – Oak Street Water Treatment Facility
APWA – Project of the Year Award – Chicago Metropolitan Chapter

Trotter and Associates, Inc. designed and provided construction supervision for a 1,500 GPM shallow sand and gravel well and iron filtration facility on the two-acre site. The water treatment facility process design included horizontal pressure filters with greensand media. The 5,000 square foot brick and block building supports two 750 GPM horizontal pressure filters, 75,000-gallon backwash holding tank, chlorination, chemical feed, administration, laboratory, SCADA workstation and back-up generator.

City of St. Charles – Main Wastewater Treatment Facility Projects:

- **2000 Primary Clarifier Improvements** – Primary clarifiers
- **2002 Nitrification Improvements** – Biological process, WAS holding, final clarifier, RAS pumping, UV, excess flow
- **2012 Main and Sludge Handling Building Improvements** – Centrifuges, GBT, WAS & TWAS holding, admin., site electrical
- **2017 Main WWTP Phosphorus and Egg-Shaped Digester Improvements –** A2O, Chem Backup, Digestion, Sludge Storage

Karen R. Young, P.E., CFM



PROJECT MANAGER

Karen has 30 years of experience in municipal engineering and public works directly managing operations, leading and designing multiple public works and engineering projects. Throughout her career, Karen has overseen multi-million-dollar capital improvement programs, managed teams, built trusted partnerships with public agencies and stakeholders, and directly participated in large-scale strategic initiatives including comprehensive plan updates, infrastructure master plan development, and facility needs assessments and/or feasibility studies. Karen brings a powerful blend of technical expertise, executive and director-level leadership, and commitment to community-focused initiatives.

RELEVANT EXPERIENCE

Village of Roselle – Public Works Director (2018 – 2025)
Karen served as the Public Works Director with a team of 30 providing leadership for Engineering, Facilities, Fleet, Streets Water and Wastewater. She led Village's Capital Improvement Program with multiple strategic projects and programs including: $80 million in wastewater improvement program for the Villages two wastewater treatment plants, annual watermain and lead service line replacement program, annual MFT roadway resurfacing, STP roadway reconstruction, stormwater improvement programs, DuPage County Floodplain remapping, lift station replacements and rehabilitations, sanitary force main replacement and building renovations. Karen led several infrastructure planning initiatives including the water model and master plan, wastewater master plan and pavement management plan which supported the initiatives for the Home Rule Referendum that passed in 2024.

City of St. Charles, IL (2014 – 2018)
Karen served as the Assistant Director of Public Works/Village Engineer during her tenure with the City of St. Charles. Karen provided leadership for the Villages Engineering Division and the Public Works Department Capital Improvement Program with multiple strategic projects and programs including: roadway reconstruction, resurfacing and full depth reclamation, bridge repairs, sidewalk and bike path, traffic signals sanitary sewers, water main, storm sewer, creek improvements and review of development projects. She secured several million dollars in funding for various capital improvement projects. She led the Villages stormwater management initiatives for the 7th Avenue Creek Project (Phase 1 $6 million other phase estimates $$$) including FEMA mapping revisions, IEPA Watershed Plan, stormwater Master Plan Development, elevation certificates, Letter of Map Amendment (LOMA), property acquisition negotiation through demolition (12 properties), Conditional Letter of Map Revision (CLOMR) for future project, community meetings, public outreach, funding analysis and pursuing grant funding opportunities. In addition, she managed the City's Community Rating System Program (CRS), which was ranked at 5 and the highest rating achieved by any community in Illinois at the time. Through these efforts the Village received the

EDUCATION
BS Civil Engineering
Bradley University
A.S. William Rainey Harper College

EXPERIENCE
30 Years

REGISTRATIONS
Professional Engineer, P.E., IL
Certified Floodplain Manager, CFM, IL
Class D Water Operator (OIT)

CERTIFICATIONS
Illinois Public Service Institute
Confined Space
Trenching & Shoring

PROFESSIONAL ORGANIZATIONS
American Public Works Association (APWA) – Fox Valley Golf Committee

Illinois Association of Floodplain and Stormwater Management (IAFSM)

Illinois Public Works Mutual Aide Assistance (IPWMAN) – Conference, Elections & Membership Committee

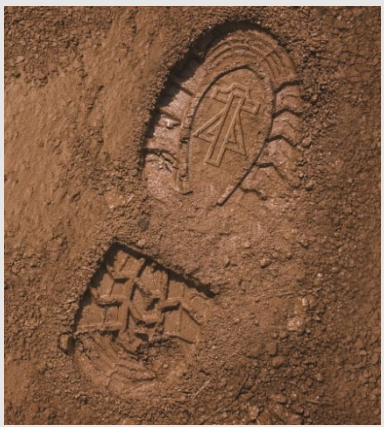
Illinois Public Service Institute (IPSI) - Committee Member

Midwest Advanced Public Service Institute (MAPSI) – Committee Member

ACCOMPLISHMENTS
IAFSM – 2018 Stormwater Management Award – City of St. Charles

IPWMAN – 2025 Presidents Award

PRESENTATIONS
APWA & IAFSM – 7th Avenue Creek Master Plan Development
IPSI - Accountability



Stormwater Management Award in 2018 from the Illinois Association of Floodplain Stormwater Management.

City of Batavia, IL (2004 – 2014)
Karen served as Civil Engineer and promoted to Assistant Village Engineer during her tenure with the City of Batavia. She was involved in several multimillion-dollar projects for various engineering projects that revitalized the downtown including: William Donavan Bridge Replacement ($9.7 million), River Street Woonerf ($2.8 million), Wilson Street Reconstruction & Streetscape, Houston Street Streetscape.

Project awards for the River Street Woonerf included Active Transportation Alliance Complete Streets Award, Best Street Award Illinois Chapter of the Congress of New Urbanism and Illinois American Society of Landscape Architects Merit Award for the River Street Woonerf Project and for the William Donavan Bridge Reconstruction included Portland Cement Association Bridge Design Award of Excellence; American Consulting Engineers Council Engineering Excellence Awards, Structural Systems Category; American Public Works Association (APWA) Fox Valley Branch and the APWA Chicago Metro Chapter Public Works Project of the Year for Transportation Structures Between $5 and $25 million; American Institute of Architects, Illinois Honor Awards and the Daniel Burnham Award Citation of Merit.

In addition, she managed the Main Street Reconstruction, multiple LAFO funded resurfacing projects, annual MFT resurfacing, sidewalk/bike path, traffic signals, sanitary sewer, storm sewer and watermain projects and secured several million dollars in funding for various projects. Karen was selected by Kane County for the development of the Kane County Fit for Kids 2020 Plan and worked with the Batavia School District to secure funding and meet the goals of this program.

Village of Roselle – 2020 and 2025 Water & Wastewater Master Planning
Karen led the initiates for the Village of Roselle and worked with Trotter and Associates as the consultant who completed the Master Plan for both water and wastewater. This was a full plan that included the evaluation of the existing infrastructure, development of capital projects and associated costs, constructing a capital improvement plan, and identifying potential funding mechanisms to complete the projects. The Plans also include an evaluation of the impacts of the proposed capital projects and associated debt service on residential user rates and monthly bills.

City of Batavia & City of St. Charles – Pavement Condition Ratings
While working for the City of Batavia and City of St. Charles, Karen completed pavement evaluations for the entire roadway system, which established the PCI condition ratings for all roadways, cost estimates for maintenance, rehabilitation and reconstruction as well as development of a 10-year capital improvement plan. These plans established a new approach to overall pavement longevity incorporating preventative maintenance strategies such as pavement rejuvenation, crack sealing and patching at a lower cost, which extended the life of the pavements to prevent costly reconstruction. This allowed the community funding to be extended farther and more roadways being completed each year.

Paving & Roadway Projects (2004-2025)
Karen worked for the Village of Schaumburg, City of Batavia, City of St. Charles & Village of Roselle in roles ranging from Civil Engineer, Project Manager, Village Engineer and Public Works Director for the completion of millions of dollars of roadway, sidewalk, bikepath, parking lots, pedestrian bridges, roadway bridges, streetscape improvement projects utilizing MFT, LAFO, LAPP, ARRA, SRTA and STP funding. These projects were processed through IDOT and other applicable permitting agencies.

Village of Bartlett – 2026 MFT Roadway Resurfacing Project
TAI was engaged to design 6.59 miles of roadway resurfacing in the Village of Bartlett utilizing MFT funding. Due to the use of MFT funds, IDOT documentation was used to stay in accordance with IDOT procedure. The $4.0 M project consisted of HMA pavement surface removal, Class D patching as necessary, combination concrete curb and gutter removal and replacement, sidewalk removal and replacement, ADA curb ramp upgrades, structure adjustments, HMA binder and surface courses, and landscape restoration. Ms. Young is the project manager field evaluations, quantities, contract documents and bidding. Contact completion 2026.

Village of Addison - Force Main, Sewer Separation, Water Main and Roadway (2026)
Senior Project Manager for the design and permitting of dual 20-inch force mains, water main replacement, lead service line replacement, sanitary service replacement, sanitary sewer rehabilitation and lining, storm sewer replacement, and road reconstruction in a densely populated residential, commercial and park setting. The scope includes tree preservation, impact evaluation and reforestation initiatives due to the number, size and depth of utilities being installed. The sewer separation for this project includes large size storm sewers being installed at depths of over 20' deep tying into a 60" and 72" sewers. Project length 1.9 miles and estimated cost $18 million.

Annual Resurfacing Programs MFT Funds - Village of Roselle (2018 – 2024)
Led engineering team who provided design, construction management, and construction observation services for MFT resurfacing of various streets in the Village of Roselle. The projects included the construction of bituminous patching, binder overlay, surface course, combination curb and gutter, sidewalk, driveway pavement and utility repairs. Responsibilities included establishing project scope, grant applications, field surveying, design of plan set, preparation of specifications, bidding, award, construction inspection and project closeout. Completed 2018 – 2024.

Central Avenue Resurfacing Project STP Funding – Village of Roselle
Project Manager for the construction of Central Avenue LAFO Resurfacing Project from Gary Avenue to Roselle Road. Project funding included Surface Transportation Program (STP). Total project cost $1,045,000. Construction completion 2019.

S. Tyler Road Reconstruction & Resurfacing – City of St. Charles
Project Manager for the project development, design and construction for the reconstruction and resurfacing of S. Tyler Road from Division Street to Tyler Road. The project includes complete roadway reconstruction and resurfacing, curb/gutter, driveway aprons, sidewalks, utility repairs, drainage improvements and restoration. Construction completed in fall 2016.

Pavement Management Programs
Implemented pavement management programs for the City of Batavia, City of St. Charles and Village of Roselle that included evaluating third party pavement data, establishing holistic pavement treatment methods and funding analysis to treat roadways throughout their lifecycle to extend their useful life. Treatments included crack sealing, pavement patching, pavement rejuvenation and resurfacing. Project years 2004 – 2024.

Rodenburg Road Reconstruction & Resurfacing Project STP Funding – Village of Roselle
This was a partnership project between the Village of Roselle and Village of Schaumburg for the resurfacing and reconstruction of Rodenburg Road from Central Avenue to Irving Park Road (IL Route 19). The project incorporates new roadway, curb and gutter, new multi-use path the length of the project connecting residents with extensive system of walking and biking trails, improved Metra grade crossing, new crossing gates for vehicles and pedestrians, storm sewer improvements and new roadway lighting. This project was partially funded with STP funds. Project cost $3.1 million. This project has been awarded the APWA Suburban Branch Transportation Award for project under $5 Million. Led internal engineering team through planning, design and construction. Project completed 2025.

Annual Resurfacing Programs MFT Funds – City of St. Charles (2014 – 2018)
Provided design, construction management, and construction observation for resurfacing of various streets in the City of St. Charles. The projects included the construction of bituminous patching, binder overlay, surface course, combination curb and gutter, sidewalk, driveway pavement and utility repairs. Responsibilities included establishing project scope, grant applications, field surveying, design of plan set, preparation of specifications, bidding, award, construction inspection and project closeout.

Roadway Resurfacing LAFO Funding – City of St. Charles
Design Engineer for project development, surveying, design and bidding and Project Manager for the construction of various roadway resurfacing projects utilizing LAPP, LAFO and ARRA funding. The projects included complete roadway resurfacing, patching, curb/gutter, driveway aprons, sidewalks, restoration, utility and drainage improvements. Coordination with IDOT, FHWA and property owners. Wrote grant application, received several million dollars in project funding and managed grant funding for the following projects:

- Peck Road (Dean Street to IL Route 38) – Project completion 2016.
- Red Gate Road (IL Route 31 to Randall Road) - Project Completion Fall 2016.
- Campton Hills Road (Happy Hills Road to IL Route 64) – Project Completion 2018

Full Depth Reclamation Projects Industrial Park - City of St. Charles
Provided design, construction management, and construction observation for full-deep reclamation of several roadways within the City's industrial area. The roadways within this area included a pozzolonic base, which was in poor condition. Recognizing that this project is in an industrial park with 24/7 operations, a full depth reclamation process was utilized to provide the same benefit of reconstruction with reduced impacts of roadway closures for the businesses. A plan was developed in conjunction with the property owners for intermittent curb, sidewalk and utility repairs to be completed without any shutdowns and a 3-day shutdown (Friday through Sunday) where the full depth reclamation and all paving work to be completed for businesses to be back open by Monday morning. Responsibilities included establishing project scope, coordination with property owners, field surveying, design of plan set, preparation of specifications, bidding, award and construction inspection. These projects were completed for the following areas in 2018.:

- 37th Street (Ohio Avenue to Illinois Avenue)
- 38th Street (Ohio Avenue to Illinois Avenue)
- Ohio Avenue (Kirk Road to Kautz Road)

S. Tyler Road Reconstruction & Resurfacing – City of St. Charles
Project Manager for the project development, design and construction for the reconstruction and resurfacing of S. Tyler Road from Division Street to Tyler Road. The project includes complete roadway reconstruction and resurfacing, curb/gutter, driveway aprons, sidewalks, utility repairs, drainage improvements and restoration. Construction completed in fall 2016.

Kautz Road Resurfacing (IL Route 64 to City of West Chicago) - City of St. Charles –
Provided design, construction management, and construction observation for resurfacing Kautz Road from IL Route 64 to City of West Chicago. The project included the construction of bituminous patching, binder overlay and surface course, curb and gutter, sidewalk, driveway pavement and utility repairs. Responsibilities included establishing project scope, field surveying, design of plan set, preparation of specifications, bidding, award, and construction inspection. Coordination with DuPage County Airport for an easement and various permit requirements for construction along airport runway, Railroad for the replacement of the at grade crossing in advance of construction and City of West Chicago for an intergovernmental agreement. Completion 2015.

Bridge Inspections and Maintenance – City of St. Charles
Project Manager for the inspections and development of maintenance and construction programs for the Villages six bridges, including 2nd Avenue, 3rd Avenue, Illinois Avenue, Prairie Street, Red Gate Road and Indiana Pedestrian Bridge (Piano Factory Bridge). Most of these bridges span the Fox River. Completed 2014 – 2018)

Illinois Avenue Bridge Rehabilitation – City of St. Charles ($690,000)
Project Manager for the design and construction of the Illinois Avenue Bridge Rehabilitation over the Fox River. Repairs included reconstruction of the bridge joints, pavement repairs, structural steel repairs and painting and repairs to the curbs and sidewalks. Construction completion 2016.

7th Avenue Creek Property Acquisition and Demolition – City of St. Charles
Project Manager working directly with property owners regarding the purchase of residential properties along the 7th Avenue Creek for future floodplain mitigation project improvements. Completed negotiation of purchase price, Village Board approvals, preparation of contracts, coordination with title companies and closings, plat of surveys, recording of deeds, environmental surveys, abatement and demolition contracts, permits for demolition and stormwater, utility disconnection and final restoration. Total of 12 property demolitions completed and well as several other acquisitions underway. Communication with property owners included the delicate process of educating them regarding the newly updated FEMA maps, floodplain and floodway impacts to their properties, discussing future improvements to reduce flooding in the area, the Village's desire to purchase several homes in order to complete the improvements and the purchase of homes that could not be removed from the floodplain and/or floodway even with extensive improvements to the area. Completion 2018.

Trinity Demolition Project – Village of Roselle
Led project team in the environmental surveys, abatement, permitting and demolition of the Trinity School for the future redevelopment of the Roselle Public Library. Completion 2025.

Public Works Building Renovations – Village of Roselle ($750,000)
Project Manager and designer of building renovations of the Public Works Building that was originally built in 1993. Improvements included complete renovation of the 39,000 sf office, mechanic shop and vehicle garage to meet the current operational needs of the department. Developed proposed building layout for the design build contract, selected materials, site furnishings and managed the overall construction. Completion 2023.

Facility Improvements – Village of Roselle
Led team through a variety of maintenance and projects for 22 buildings in the Village including roof replacements, HVAC replacement, mechanical repairs, tuckpointing and remodeling projects. Timeline 2018 – 2025.

Vehicle Purchases & Maintenance – Village of Roselle
Led team for the purchase, maintenance and upfitting of over 100 vehicles and 200 pieces of equipment for the Fire Department, Police Department, Public Works Department and Village Hall. Timeline 2018 – 2025.

State Street Creek Restoration Project – City of St. Charles
Project Manager/Engineer for the design, construction and permitting for the emergency bank repairs along State Street Creek from IL Route 31 to the Fox River. Severe bank erosion caused exposure of the City's sanitary structure and private property. Work included bank stabilization to protect the Village's infrastructure as well as the adjacent private property. Pull additional details and project length and costs. Project completion 2016.

Norton Creek Woods of Fox Glenn Creek Stabilization Project – City of St. Charles
Project Manager the design, construction and permitting Woods of Fox Glen Creek Stabilization Project from Fox Glen Drive to St. Charles Country Club. Scope of work included grading, bank stabilization, gabion baskets, decorative stone work, concrete weir, tree planting and landscape restoration. Pull additional details and project length and costs. Project completion 2016.

IL Route 31 Culvert Extension and Pedestrian Path Project – City of St. Charles
Project Manager the design, construction and permitting of the IL Route 31 Culvert Extension and Pedestrian Path Project along IL Route 31 from the City of Geneva to Willowgate Lane. The work included the extension of the existing roadway culvert, retaining walls, sidewalk extension, streambank stabilization and native restoration. Worked the adjoining property owner who donated the property necessary to complete this project, the City of Geneva for an Intergovernmental Agreement for their participation in the project, the Illinois Department of Transportation and other permitting agencies. Project Completion 2017.

Flood Insurance Rate Mapping FIRM – Village of Roselle
The Federal Emergency management Agency (FEMA) issued preliminary Flood Insurance Rate Maps (FIRM), which resulted in approximately 150 homes in Roselle being added to flood prone areas. Through the FIRM approval process, the Village filed written objections to the revisions based on documented flood data and collaborated with the DuPage County Stormwater Management Department to re-model the Springbrook Creek area based on input from the Village of Roselle and our residents to determine if any additional reduction in the flood limits can be achieved based on modeling calibration to the data provided. Through these remodeling efforts along Springbrook Creek there was a reduction in the floodplain limits positively impacting many properties. Project dates 2018 – 2025.

Dual Force Main Project – Village of Addison
Project Manager for the design and construction of dual parallel 20" forcemains, watermain reconstruction, storm sewer separation and roadway reconstruction from the AJL Facility to the North Water Reclamation Facility. The forcemain will travel over two miles through the community and cross both State and County Highways along its path. The alignment is coordinated with the sewer separation project to maximize the benefit of restoration costs and as well as avoid potential conflicts along the route. The project also includes water main replacement, lead service line replacement, storm sewer separation, roadway replacement, curb/gutter, driveways and restoration. Project is currently under design.

Force Main Condition Assessment – Village of Roselle
Led project team for the assessment of force mains in the Village of Roselle including internal inspection, external corrosion assessment, which provided data regarding the condition of the main, detection of leaks, identification of deposits/debris/blockages, as well as recommendations for maintenance repairs, and/or replacement. Force mains included in this assessment were Kennedy, Den, Fall Circle and Roselle Center. Project completed 2024.

Kennedy Force Main Rehabilitation – Village of Roselle ($2.9M)
Project manager for the rehabilitation of the Kennedy Lift Station force main which conveys wastewater to the MWRDGC John E. Egan Water Reclamation Facility in Schaumburg. The Kennedy LS force main was evaluated utilizing internal assessment by multi-sensor devices and external corrosion pipeline assessment. Critical deficiencies were identified throughout the 6500' length which deemed rehabilitation a high priority. Concept design will include a broadband electromagnetic inspection (BEM) and "smart" pigging. Rehabilitation options were developed with a combination of FFRP and CIPP liners and/or open-cut sewer replacement and final project design. Project completed 2024.

Chesapeake Force Main Replacement – Village of Roselle ($100,000)
Project manager for the construction of the replacement of approximately 425 LF of sanitary force main. Project completion 2019.

Cherry Street Force Main Replacement – Village of Roselle
Led engineering team for the replacement and upsizing of the Cherry Street Force Main construction engineering. The forcemain was replaced as part of a housing development and inspected/accepted by the Village. Project completed 2023.

CMOM & SSES Program – Village of Roselle
A Capacity, Management, Operation and Maintenance Program (CMOM) focused on the areas of the Devlin Basin that flow through the Cherry Street Lift Station. This area is known to have significant inflow and infiltration issues and experience extreme flows during rain events. The project included flow monitoring during the spring to understand which specific areas the flows are coming from and a Sanitary Sewer Evaluation Survey (SSES) to identify the sources of the high flows including televising lines, smoke and dye testing lines. The final phase of the project identified improvement projects for the rehabilitation and construction within the system. Completed 2024.

Sanitary Sewer Lining & Repairs - Village of Roselle
Responsible for the overall administration of the Village's annual sanitary sewer and manhole lining program to reduce inflow and infiltration into the sanitary sewer that resulted in the Village treating stormwater in addition to sanitary water at the Village's two wastewater treatment plants. Completed 2018 – 2025.

Kennedy Lift Station Replacement – Village of Roselle ($1.9 million)
Led project team for the replacement of the existing Kennedy Lift station located on Plum Grove Road south of Nerge Road. This lift station was constructed in 1971 and serves single family homes and businesses. The existing station was an old can-type lift station and was converted to a new triplex submersible pump system and prefabricated building, which includes the controls, valves, meters and standby generator. Completed 2019.

Jewel Ventura Lift Station & Force Main Replacement- Village of Roselle $2.3 million
The Jewel Ventura Lift Station Replacement Project included the consolidation of two existing can, dry pit style lift stations (Jewel and Ventura) into one new triplex, submersible pump lift station as well as the replacement of ** feet of gravity sanitary sewer main. The new Cherry Lift Station is located at the southeast corner of Cherry Street and Dee Lane and includes a prefabricated building for the controls, valves, meter and standby generator. Completed 2019.

Lift Station Rehabilitations – Village of Roselle
Led project team for the rehabilitation of several lift station rehabilitations that consisted of old can-type stations that required confined space entry for staff to maintain. This design makes maintenance of the aging infrastructure difficult. The projects rehabilitated the lift station to a submersible pump station where staff can pull the pumps out of the lift station to do maintenance or other work.

- Den Lift Station - Located along Roselle Road north of Devon Avenue. The lift station was originally constructed in 1977 and serves single-family homes and businesses in a 91-acre basin. Included the addition of a generator. Design/Build 2025.

- Fall Lift Station – Located in Fall Circle. The lift station was originally constructed in 1971 and serves single-family homes and businesses in a 152-acre basin. Design/Build 2025.

- Chesapeake Lift Station - Located on West End Road at Pine Street. The lift station was originally constructed in 1979 and serves single-family homes in a 154-acre basin. Included the addition of a generator. Included the addition of a generator. Completed 2023.

Watermain Replacement Program – Village of Roselle
Responsible for the overall administration of the Village's annual Water Main Replacement Program as well as leading the engineering and public works staff who performed contract and consultant oversight for this program. Locations for replacement were based on the Villages Water Model and Master Plan that identified the areas in the system that need to be replaced or upsized to provide sufficient water pressure, fire flow or based on age and break history. All projects were coordinated with roadway and other associated improvements in the area to minimize disruption to the area. Completed 2018 – 2025.

Village of Roselle – Lead Service Line Replacement Plan
Led an engineering and public works team to develop a lead service line replacement plan for the Villages water utility. Planning activities included service line inventory, funding options, and community engagement. The lead service line inventory was cross-referenced with the City's capital improvements plan to create efficiencies within the program. 256 lead service lines roselle. Completed 2018 – 2025.

North 5th Avenue Watermain Replacement – City of St. Charles
Project Manager for the design and construction of the North 5th Avenue (IL Route 25) Watermain Replacement program from North Avenue (IL 64) to sought of Country Club Road. Iroquois Avenue from North 5th Avenue to Third Avenue and Allen Lane from North 5th Avenue to the dead end. The City of St. Charles had experienced chronic breaks in their watermain along Route 25 in a crucial section feeding the north side of town. Several options were developed for replacement of the 5,400 feet of watermain, which included replacement of existing water services, pavement resurfacing and restoration. Completed Fall 2016.

▼ CURRENT PROJECTS

Job #	Project Name	Role	Deadline
ADD016	Addison Force Main Design	Sr. Project Manager	October, 2027
VOB012	Bartlett 2026 Various Streets	Sr. Project Manager	July, 2026
ADC001	Archdiocese St. Michael Cemetery Retaining Wall	Sr. Project Manager	April, 2026

Aaron Berry, MBA, P.E.



EDUCATION
BS Civil Engineering
University of Dayton

MBA – Benedictine University

Level Geographical Information Systems
GIS certificate

EXPERIENCE
17 Years

REGISTRATIONS
Professional Engineer, P.E., IL

PROFESSIONAL ORGANIZATIONS

Professional Engineer, P.E., IL
Illinois GIS Association

American Public Works – APWA

Water Environment Federation
Membership Committee Chair

WEFTEC Technical Advisory Committee
Member

Central States WEA
Membership Committee Chair

ACCOMPLISHMENTS



Senior Project Manager

Aaron is a graduate of Civil Engineering program at the University of Dayton, with a Master's Certificate in GIS and MBA from Benedictine University. Throughout his career Aaron as spent a considerable time observing construction and ensuring that TAI's clients are getting the highest quality product. These experiences have allowed Aaron to gain a deeper understanding of design and the need for practical solutions. Pairing his construction background with an MBA allows Aaron to see projects from a constructability standpoint, as well as from a funding/budgeting standpoint.

Relevant Experience as Senior Project Manager

Village of Glendale Heights – 2024 Water/Sewer Rate Study
The Village and TAI completed a WWTP Facility Plan in 2018 and Water Master Plan in 2020 that identified a number of regulatory, rehabilitation, and upgrade needs across the water and sewer systems. In 2023 the Village retained TAI to complete a Rate Study to evaluate the current capital and operational needs and analyze potential funding mechanisms. TAI developed several alternative rate structures to meet these objectives, reviewed surrounding community approaches, and presented these alternatives for Board consideration. Since completion of the Rate Study in 2023 and adoption of the proposed structure in 2024, TAI has assisted the Village in ongoing budgeting and reviews of the rate structure.

DuPage County Public Works – 2025 Five and 10-Year Capital Planning
The DuPage County Department of Public Works owns and operates three wastewater treatment facilities and collection systems, as well as water storage, treatment, and distribution systems serving more than 200,000 residents. In 2025 the County selected TAI through a QBS process to identify required projects, prepare detailed cost estimates, and develop an implementation plan for these water and wastewater systems.

Village of Roselle – 2025 Water & Wastewater Master Planning
In 2025 the Village requested that TAI assistance in preparing Master Plan Updates for the water and wastewater systems, having completed full plans in 2018 and 2020. These plans include development of capital projects and associated costs, constructing a capital improvement plan, and identifying potential funding mechanisms to complete the projects. The Plans also include an evaluation of the impacts of the proposed capital projects and associated debt service on residential user rates and monthly bills.

Village of Oak Brook – 2018 Water Master Plan & Hydraulic Modeling
The Village requested TAI to prepare a Water System Master Plan. This plan generally includes three main tasks: creation of a new hydraulic model of the existing system, utilization of the hydraulic model to provide recommendations for distribution system

replacement and improvements, as well as to provide conceptual level design of recommended improvements to the water system, including SCADA upgrades. TAI completed the plan in late 2018 and is currently utilizing the hydraulic model for development reviews throughout the Village.

City of St. Charles – 2018 Water Master Plan & Hydraulic Modeling
The City of St. Charles is beginning to experience growth once again and has elected to update its water master plan. The project included evaluation of pending development, current and future capacity needs, and identification of improvements requested to meet the City's long-term needs. The study focuses on evaluation of the existing distribution systems ability to meet current ISO rating requirements, as well as the impacts of aging infrastructure. The City is also considering expanding its water production capacity, including the evaluation drilling additional wells, or the viability of connecting to DuPage Water.

Village of Hanover Park – 2018 Water Modeling & Capital Improvements Planning
In 2018 Trotter and Associates created a hydraulic model for the Village of Hanover Park through importing the Village's GIS database. TAI performed flow testing throughout the distribution system in order to accurately calibrate the model for analysis. Once the model was created, TAI utilized this tool to determine criticality of various main, plan for distribution system improvements, and create a Capital Improvements Program for the next 10 years of water main upgrades. The project also included analysis of the distribution system based on main age, material, diameter, and main break frequency in order to prioritize improvements and maximize the impact of the Village's investment into the water system.

Village of East Dundee – Water Master Plan, Distribution Model & Rate Study
The project included revisions of the distribution system model confirming results from the recent improvements, and identification of areas for future upgrades. TAI provided multiple recommendations that were incorporated into the Village's 10-year Capital Improvements Program. TAI also prepared a rate study for future loan funding and in-house financing of smaller projects.

City of St. Charles – ISO Section 600 Water Study
This project included recreation of the Water Distribution Model from GIS using WaterCAD V8i and incorporating data from the City of St. Charles upgraded GIS system. The project also included performing a complete analysis of the water system to document its capacity with respect to the City's ISO rating. TAI completed Section 600 of the ISO evaluation, documenting available fire flows, pressures, and maintenance protocols for all distribution system components. This evaluation assisted in the City maintaining their Class 1 ISO rating.

City of St. Charles – 2018 Water Master Plan & Hydraulic Modeling
The City of St. Charles is beginning to experience growth once again and has elected to update its water master plan. The project included evaluation of pending development, current and future capacity needs, and identification of improvements requested to meet the City's long-term needs. The study focuses on evaluation of the existing distribution systems ability to meet current ISO rating requirements, as well as the impacts of aging infrastructure. The City is also considering expanding its water production capacity, including the evaluation drilling additional wells, or the viability of connecting to DuPage Water.

City of North Chicago – 2016 Water Modeling Update & Calibration
This project included updating the City's WaterCAD hydraulic model to accurately reflect the current system, and calibrating the model based on field fire flow tests. TAI performed fire flow testing at 20 separate locations throughout the City, and validated the results through a work session with Fire Department and Water Department staff. Improvements to the City's water supply system have been implemented based on recommendations from the hydraulic

model. The City's 5-year CIP for water main replacement has been based on the recommendations from deficiencies identified through the development and analysis of the hydraulic model.

Village of Fox Lake – 2015 Master Plan & Water Modeling

Trotter and Associates assisted the Village in developing a Water Master Plan for the North and South Service Areas. This plan not only addressed the short-term and long-term needs of both systems, but that of the Village as a whole. The project included a comprehensive analysis and evaluation of the Village's needs with respect to capacity, fire flow, rehabilitation, and ability to meet regulatory requirements and funding. The master plans included recommendations for improvements, analysis of financial impacts, and an implementation schedules. TAI visited and evaluated all water treatment plants, and wells allowing for the identification of future upgrades, needs and schedules.

Village of East Dundee – Standpipe Water Hammer Analysis

TAI prepared and evaluated a new scenario within the existing WaterCAD™ model with the Barrington Avenue Standpipe out of service to demonstrate system operation. The Village was looking to explore the presence and impact of transient pressures within the system if the standpipe was removed. The analysis performed included comparing results of normal demand fluctuations, fire flows, and a 200 gpm instantaneous demand.

Village of Fox Lake – GIS Implementation

Project included the development and implementation of mobile data collection along with the development of a comprehensive GIS basemap. TAI utilized multiple sources to develop an all-encompassing basemap, and included both Village and County data. The developed map is used daily by Village staff, and has streamlined operations.

Jillian G. Kiss, P.E.



EDUCATION
BS Civil Engineering
University of Illinois Urbana-Champaign

M.S. Environmental Engineering
University of Illinois Urbana-Champaign

EXPERIENCE
15 Years

REGISTRATIONS
Professional Engineer, P.E., IL
062.067200

PROFESSIONAL ORGANIZATIONS
Water Environmental Federation (WEF)

American Water Works Association (AWWA)

American Public Works Association (APWA)

ACCOMPLISHMENTS
Central States Water Environment Association (CSWEA)

- **Outstanding Service Award 2015**
- **Young Professional of the Year 2016**
- **7S Inductee 2016**
- **Outstanding Service Award 2020**



PROJECT MANAGER

Jillian joined Trotter and Associates, Inc. (TAI) as a project engineer in 2012 and has played a key role in the preparation of multiple water and wastewater master planning projects. Jillian has completed Facility Plans and Phosphorus Removal Studies for six of TAI's long-standing clients. She has served as the design engineer and resident engineer for the City of Rochelle's Sludge Dewatering Improvements and pump station rehabilitation projects for the Fox River Water Reclamation District. Jillian has been instrumental in developing cost-effective solutions for several lift station and WWTF improvements for the Northern Moraine Wastewater Reclamation District. Jillian also has focused experience with assisting public entities with state and federal grant and loan funding mechanisms.

RELEVANT EXPERIENCE

Northern Moraine Wastewater Reclamation District – 2024 Facility Plan and Rate Study
TAI completed a wastewater facility plan for the Northern Moraine Wastewater Reclamation District (NMWRD). NMWRD serves Island Lake, Lakemoor, Port Barrington and Holiday Hills. The facility plan evaluated the community needs, existing collection system, lift stations, existing wastewater treatment facility, regulatory upgrades and an implementation plan required for the NMWRD. The District's last rate study was performed in 2020, and the recommendations of that study were implemented. Based on the implementation plan, a fiscal model was developed using the District's budget, current accounts and metered usage data for a ten-year study period. Lindsay served as the wastewater project engineer for this project. The District has implemented new rates based on the recommendations.

Village of Algonquin – 2019 2023 Wastewater Facility Plan and Rate Study
TAI completed a wastewater facility plan and rate study for the Village of Algonquin. The facility plan evaluated the community needs, existing collection system, lift stations, existing wastewater treatment facility, regulatory upgrades and an implementation plan required for the Village. A rate study was also completed

Village of Algonquin – Phase 6B Improvements
The Village of Algonquin Wastewater Treatment Facility Phase 6B Improvements included rehabilitation of structures and replacement of existing equipment within the primary clarifiers, 5-stage Bardenpho biological process, RAS/WAS pump station, final clarifiers, UV and effluent metering, and sludge thickening. The anaerobic digestion complex received a major upgrade including steel digester covers, digester gas piping and safety equipment, a new heat exchanger/boiler unit, and a new waste gas flare. The project also included upgrades to the electrical power equipment and replacement of roof systems on all of the buildings. Additional improvements feature an extension of the non-potable water supply system to other areas of the facility, a

new non-potable water (final effluent) pump station, expansion of the aerobic digestion capacity, conversion of existing aeration basins to temporary WAS storage and new process monitoring instruments. Jillian was heavily involved in completing facility planning to identify the project need and scope, design engineering, project management, IEPA loan application assistance and disbursement administration, bidding and managing on-site personnel conducting construction observation for this project.

Northern Moraine Wastewater Reclamation District - Holiday Hills/Le Villa Vaupell Sewer Extension
This project includes the extension of sanitary sewer service from the Northern Moraine Wastewater Reclamation District to the 276 single family residences in the Village of Holiday Hills and 29 homes in the Le Villa Vaupell Subdivision. The entire region will benefit from this sanitary solution because eliminating most private septic systems will greatly improve the area's water quality. Failing and overloaded septic systems contribute significant amounts of fecal coliform bacteria to the Fox River, especially when they become submerged during wet weather conditions. The multi-phase project includes over 27,000 lineal feet of sewer, approximately 3,900 linear feet of 10-inch diameter sanitary sewer force main, and construction of a new duplex submersible pump station with SCADA, bypass pump connection, flow metering, back-up generator, controls, and all related appurtenances. Jillian was heavily involved in completing facility planning, design engineering, project management, IEPA loan application assistance, resident communication, and bidding.

Fox River Water Reclamation District – ADP WRF Pump Station 10 Screening Installation
This project includes installation of mechanical bar screens in existing influent channels to the District's raw sewage pump station at the ADP Water Reclamation Facility. The pump station is located in the 100-year flood plain and required additional flood mitigation by a flood barrier wall around the existing channel structure and wet well. The project includes the bar screen equipment, washer compactor, FRP enclosure, gas monitoring systems and electrical. Jillian served as project manager, also having a heavy role in the design of the project.

Funding Application Assistance
Jillian Kiss has played a key role in managing the financing used by municipalities and sanitary districts to fund the construction of water and wastewater projects. She has managed over $330 Million in IEPA SRF loans and local and federal grants in the last 10 years. She has pursued grants and loans for TAI's clients from the following programs:

- IEPA Water Pollution Control and Public Water Supply Loan Programs
- USEPA Community Project Grant Program
- IEPA Unsewered Communities Construction Grant Program
- McHenry County Community Development Block Grant
- Advance McHenry County – American Rescue Plan Act
- IEPA Resilient Energy for Wastewater Infrastructure Grant Program

The requirements of these grants are extensive and require communication with the applicants to compile application information to demonstrate technical, managerial, and financial capabilities to the funding agency. Pre- and post award scope typically includes drafting project narratives, environmental agency coordination, assembling project budgets, project information meetings with stakeholders, grant status reporting and expense reimbursement requests.

Northern Moraine Wastewater Reclamation District – Blower Replacement
This project included replacement of three centrifugal blowers with two positive displacement rotary lobe blowers and air piping modifications. The existing Lamson centrifugal blowers were installed in 1997 and were beyond their useful life. The blowers provide air for the aerobic digestion system. Jillian designed and managed the project for the District.

Northern Moraine Wastewater Reclamation District – Generator Replacement
This project includes replacement of the existing 500 kw diesel fuel generator which was originally installed in 1999 with a new 600 kW diesel fuel generator with attached fuel storage tank. The District will increase the generator size to 600 kW to allow for added flexibility in operations during standby power. Jillian served as Project Manager and grant manager for the USEPA Community Project Grant. Trotter and Associates operates as the District Engineer.

Northern Moraine Wastewater Reclamation District – Control Building Electrical Upgrades
This project includes replacement of electrical infrastructure within the District's Control Building located at the Wastewater Treatment Facility. The Control Building was originally constructed in 1977 and expanded in 1990. The motor control centers and power equipment were original to the building and requires replacement due to age. The District converted an existing Generator Room into a designated and climate controlled Electrical and Control Room. New switchgear and an ATS was installed inside the room and existing process equipment control panels and low voltage lighting panels were relocated from their various locations within the Building into the room. Jillian served as Project Manager and grant manager for the IL DCEO grant. Trotter and Associates operates as the District Engineer.

Northern Moraine Wastewater Reclamation District – WWTF Solar Array
The project includes design and installation of a 1.04 MW ground mounted solar array at the WWTF. The system will offset 100% of the facility's annual electrical power consumption. The project will also include battery storage. The project is currently in the design and permitting phase. Jillian is serving as Project Manager and grant manager for the IEPA Resilient Energy for Wastewater Infrastructure grant.

Northern Moraine Wastewater Reclamation District – Darrell Road Phase 1A – Headworks
The project includes construction of two screening channels adjacent to the existing screening channel and installation of mechanical bar screens and washer compactors for screenings. The equipment will be installed in a new brick and block building. The new structure will accommodate the proposed Phase IB interceptor sewer to be constructed and serve the eastern portion of the District's planning area. The project is currently in the design phase. Jillian is serving as Project Manager and grant manager for the USEPA Community Project Grant. Trotter and Associates operates as the District Engineer.

Northern Moraine Wastewater Reclamation District - Holiday Hills/Le Villa Vaupell Sewer Ext Phases 1& 2
This project includes the extension of sanitary sewer service from the Northern Moraine Wastewater Reclamation District to the 276 single family residences in the Village of Holiday Hills and 29 homes in the Le Villa Vaupell Subdivision. The entire region will benefit from this sanitary solution because eliminating most private septic systems will greatly improve the area's water quality. The overall project includes over 27,000 lineal feet of sewer, 100 manholes, 3,900 lineal feet of force main and a lift station. Phase 1 was completed in May 2023. Phase 2 will be completed in Summer 2026. Jillian was heavily involved in completing facility planning, design engineering, project management, IEPA loan application assistance, grant management, resident communication, and bidding.

Northern Moraine Wastewater Reclamation District – WWTF Secondary Clarifier Emergency Repair
This project included the investigation of a circular clarifier tank that had floated due to hydrostatic pressure and failure of the PRVs, design of the repairs to the concrete tank and selection of new mechanical equipment. The recommendation was to cut the existing slab within the clarifier walls and repour a new slab with pressure relief valves. A new mechanism was installed. Jillian was involved in the investigation efforts, design of the new equipment, client management and bidding.

Fox River Water Reclamation District – ADP WRF Bar Screen Installation
TAI is currently providing design, bidding and construction engineering services for the Fox River Water Reclamation District – ADP WRF Bar Screen Installation project. The project includes replacing two existing comminutors with mechanical bar screens and screenings washer compactors at the raw sewage pump station. The pump station and screen channel are in the 100-year floodplain. The design includes a floodproof wall around the screen channel and wet well with floodproof doors for access and screenings disposal. The project is currently in the bidding and construction phase. Jillian as the Project Manager was heavily involved with the design team.

Fox River Water Reclamation District – North WRF Bar Screen Installation
TAI is currently providing design, bidding and construction engineering services for the Fox River Water Reclamation District – North WRF Bar Screen Installation project. The project includes replacing two existing comminutors with mechanical bar screens and screenings washer compactors at two locations of incoming flow – the raw sewage pump station and the grit tanks. The design includes a floodproof wall around the screen channel of the raw sewage pump station to provide freeboard above the 100-year floodplain elevation. The project is currently in the construction phase. Jillian is the Project Manager and was heavily involved with the design team.

Fox River Water Reclamation District – Pump Station 38 Improvements
This project included a condition and capacity assessment of the existing pumps and a recommendation for rehabilitation or replacement. The ultimate scope included replacement of equipment and facilities including upgrading ventilation to code, providing fall protection, lighting, new pump starters, lighting panel and service disconnect, radar level control, grinder equipment, bypass channel bar rack, painting, door and window replacement, valve replacement and a new force main bypass connection in a vault. Jillian served as lead engineer and Project Manager.

Fox River Water Reclamation District – West WRF Odor Control Improvements
The project included an initial investigation of the existing odor control system at the Headworks facility, air sampling, and recommendations for new odor control systems. TAI completed the design of a bio-filter in a new cast-in-place concrete vessel and new launder covers on the primary sedimentation tanks. TAI also designed an adsorptive media system for the pump station. TAI ultimately provided design, bidding and construction engineering services to the District. Jillian served as lead design engineer.

▼ CURRENT PROJECTS

Job #	Project Name	Role	Deadline
ALG038	Village of Algonquin - WWTF Biosolids Handling (Construction)	Project Manager	January, 2027
ALG048	Village of Algonquin - Algonquin Shores Pump Station Improvements (Construction)	Project Manager	August, 2026
FRD022	Fox River Water Reclamation District - ADP WRF Pump Station 10 (Construction)	Project Manager	February, 2027
NMW113	Northern Moraine Wastewater Reclamation District - WWTF Solar	Project Manager	July, 2026

Lindsay Muth



Staff Engineer

Lindsay graduated from the University of Illinois in 2020 with a bachelor's degree in civil engineering and started at TAI shortly after graduation. She has completed facility/master plans and phosphorus studies for several of TAI's long-standing clients. In addition, Lindsay has also written several project plans, including both water and wastewater projects. In her time at TAI, Lindsay has also been involved with development and management of project plans and IEPA loans for roughly $150 million of water and wastewater infrastructure. Lindsay is currently involved in design and construction of the Algonquin WWTF Biosolids Handling Improvements, Algonquin Shores Pump Station Improvements and the Roselle J.L. Devlin WWTF Plant Expansion and Phosphorus Removal Upgrades.

EDUCATION
BS Civil Engineering
University of Illinois Urbana-Champaign

EXPERIENCE
6 Years

REGISTRATIONS
Engineer in Training, E.I.T.
(061-041962)

PROFESSIONAL ORGANIZATIONS
Water Environment Federation (WEF)

2023 WEFTEC Students and Young Professional Committee (SYPC) Service Project Team Co-Chair

Water Environment Federation (WEF) University of Illinois Chapter President (2019-2020)

Central States Water Environment Federation (CSWEA)

PRESENTATIONS
ISAWWA Winter 2024 Splash Issue
"A Walk Through the Illinois EPA SRF Loan Funding Documentation"



Relevant Experience

Northern Moraine Wastewater Reclamation District – 2024 Facility Plan & Rate Study
TAI completed a wastewater facility plan for the Northern Moraine Wastewater Reclamation District (NMWRD). NMWRD serves Island Lake, Lakemoor and Port Barrington and is extending sewer service to the Village of Holiday Hills. The facility plan evaluated the community needs, existing collection system, lift stations, existing wastewater treatment facility, regulatory upgrades and an implementation plan required for the NMWRD. The District's last rate study was performed in 2020, and the recommendations of that study were implemented. Based on the implementation plan, a fiscal model was developed using the District's budget, current accounts and metered usage data for a ten-year study period. Lindsay served as the wastewater project engineer for this project. The District has implemented new rates based on the recommendations.

Village of Algonquin – 2023 Wastewater Facility Plan and Rate Study
TAI completed a wastewater facility plan and rate study for the Village of Algonquin. The facility plan evaluated the community needs, existing collection system, lift stations, existing wastewater treatment facility, regulatory upgrades and an implementation plan required for the Village. A rate study was also completed. Lindsay served as a wastewater project engineer for this project.

Village of Fox Lake NWRWRF – Nutrient Assessment Reduction Plan (NARP)
TAI completed a Nutrient Assessment Reduction Plan (NARP) for the Village of Fox Lake NWRWRF. The NWRWRF treats wastewater from twelve surrounding communities under their NPDES. The Village's NPDES received a Special Condition for completion of a NARP based on phosphorus related impairments in the waterbody or stream segment downstream of the NWRWRF. The plan includes measures to reduce phosphorus from point and nonpoint sources to meet the target level. Lindsay served as the lead project engineer for this project.

▼ Relevant Experience

Village of Roselle – Devlin WWTF Plant Expansion and Phosphorus Removal Upgrades
TAI is currently providing preliminary design, final design, and bidding engineering services for the J.L. Devlin WWTF Plant Expansion and Phosphorus Removal Upgrades project. This includes numerous capital improvement projects such as plant expansion and phosphorus removal, grit removal rehabilitation, secondary clarifier replacement, and UV disinfection conversion. Annette worked on the DuPage County Stormwater Permit application for this project which included designing the site grading plan for stormwater conveyance, analyzing existing FEMA floodplain mapping, coordinating a wetland delineation, and designing best management practices for stormwater containment. Lindsay is currently serving as a wastewater project engineer on the project's design.

City of St. Charles – 2023 Water and Wastewater Master Plan
The City of St. Charles contracted with Trotter & Associates, Inc. to perform the Master Plans for their Water and Wastewater utilities in 2023. Using data from the city and through in-depth coordination meetings with city staff, TAI identified the strengths and weaknesses of each utility from source to discharge. The City utilizes the document for their 5-year and 10-year CIPs to improve and expand both utilities and secure funding for the recommended improvements requiring a loan from the IEPA. Lindsay served as the wastewater project engineer for this project.

City of Batavia – 2022 Project Plan, Biological Modeling, & Facility Plan
TAI completed a Project Plan in 2022, which reviewed the City's wastewater infrastructure, including the sewer and the wastewater treatment facility. Based on the recommendations of the 2022 Project Plan, Biological Modeling, and Facility Plan, the scope of the Phase 2A project at the City's Wastewater Treatment Facility has changed drastically since 2014. Phase 2A and 2B were intended to be completed by 2022, and Phase 3 was intended to be completed by 2023. As a result, it was recommended to start design of the Phase 2A rehabilitation project upon completion of the Project Plan and complete the Facility Plan upon completion of Phase 2A design. This drastic change in design required rigorous coordination with permitting agencies and the IEPA IFAS to secure funding for Phase 2A. Lindsay served as a wastewater project engineer for the project plan, facility plan, and funding for the IEPA Loan for the Phase 2A project.

Funding Application Assistance
Lindsay Muth has played a key role in managing the financing used by municipalities and sanitary districts to fund the construction of water and wastewater projects. She has been involved with development and management of project plans for $150 Million in IEPA SRF loans in the last 6 years.

▼ Current Projects

Job #	Project Name	Role	Deadline
ALG038	Village of Algonquin - Algonquin WWTF Biosolids Handling	Resident Engineer	January, 2027
ALG048	Village of Algonquin - Algonquin Shores Pump Station Improvements	Resident Engineer	August, 2026
ROS2025	Village of Roselle - Devlin WWTF Plant Expansion and Nutrient Removal Upgrades	Staff Engineer	July, 2026

Chris J. Marschinke, P.E.



Senior Project Manager

Mr. Chris Marschinke earned his civil engineering degree from the University of Illinois in 2009. Chris is heavily involved in local, state, and national policy organizations and holds leadership roles in each. Over the last 17 years with Trotter and Associates, Inc., Chris has served as a Resident Engineer, Design Engineer, Project Manager and now as Senior Project Manager for over $175M in water and wastewater infrastructure improvements.

Chris has completed planning, design and construction engineering services for more than 40 communities throughout northeastern Illinois. Chris is currently managing the DuPage County Public Works 5- and 10-Year Capital Improvements Planning, Village of Roselle Water and Wastewater Master Planning and CIP, and recently completed Water Master Planning for the Village of Algonquin, City of St. Charles, and the Water/Sewer Rate Study for the Village of Glendale Heights.

Relevant Experience as Senior Project Manager

Village of Glendale Heights – 2024 Water/Sewer Rate Study
The Village and TAI completed a WWTP Facility Plan in 2018 and Water Master Plan in 2020 that identified a number of regulatory, rehabilitation, and upgrade needs across the water and sewer systems. In 2023 the Village retained TAI to complete a Rate Study to evaluate the current capital and operational needs and analyze potential funding mechanisms. TAI developed several alternative rate structures to meet these objectives, reviewed surrounding community approaches, and presented these alternatives for Board consideration. Since completion of the Rate Study in 2023 and adoption of the proposed structure in 2024, TAI has assisted the Village in ongoing budgeting and reviews of the rate structure.

DuPage County Public Works – 2025 Five and 10-Year Capital Planning
The DuPage County Department of Public Works owns and operates three wastewater treatment facilities and collection systems, as well as water storage, treatment, and distribution systems serving more than 200,000 residents. In 2025 the County selected TAI through a QBS process to identify required projects, prepare detailed cost estimates, and develop an implementation plan for these water and wastewater systems.

Village of Roselle – 2025 Water & Wastewater Master Planning
In 2025 the Village requested that TAI assistance in preparing Master Plan Updates for the water and wastewater systems, having completed full plans in 2018 and 2020. These plans include development of capital projects and associated costs, constructing a capital improvement plan, and identifying potential funding mechanisms to complete the projects. The Plans also include an evaluation of the impacts of the proposed capital projects and associated debt service on residential user rates and monthly bills.

EDUCATION
BS Civil Engineering
University of Illinois Urbana-Champaign

EXPERIENCE
17 Years

REGISTRATIONS
Professional Engineer, P.E., IL (062-066166)
Professional Engineer, P.E., IA (23391)

PROFESSIONAL ORGANIZATIONS
Kane County Water Association
- Past President

Water Environment Federation (WEF)
- WEF Delegate 2026-2028
- SYP Subcommittee Past-Chair

Central States WEA
- IL Section Past- Chair
- IL Section Trustee

American Public Works Association (APWA)

ACCOMPLISHMENTS
APWA Chicago Metropolitan Environmental Project of the Year (2012, 2013, 2015, 2018)

National Association of Counties (NACO)
- Project Achievement Award – 2016

CSWEA Young Professional of the Year – 2019



Village of Oak Brook – 2018 Water Master Plan & Hydraulic Modeling
The Village requested TAI to prepare a Water System Master Plan. This plan generally includes three main tasks: creation of a new hydraulic model of the existing system, utilization of the hydraulic model to provide recommendations for distribution system replacement and improvements, as well as to provide conceptual level design of recommended improvements to the water system, including SCADA upgrades. TAI completed the plan in late 2018 and is currently utilizing the hydraulic model for development reviews throughout the Village.

City of St. Charles – 2018 Water Master Plan & Hydraulic Modeling
The City of St. Charles is beginning to experience growth once again and has elected to update its water master plan. The project included evaluation of pending development, current and future capacity needs, and identification of improvements requested to meet the City's long-term needs. The study focuses on evaluation of the existing distribution systems ability to meet current ISO rating requirements, as well as the impacts of aging infrastructure. The City is also considering expanding its water production capacity, including the evaluation drilling additional wells, or the viability of connecting to DuPage Water.

Village of Hanover Park – 2018 Water Modeling & Capital Improvements Planning
In 2018 Trotter and Associates created a hydraulic model for the Village of Hanover Park through importing the Village's GIS database. TAI performed flow testing throughout the distribution system in order to accurately calibrate the model for analysis. Once the model was created, TAI utilized this tool to determine criticality of various main, plan for distribution system improvements, and create a Capital Improvements Program for the next 10 years of water main upgrades. The project also included analysis of the distribution system based on main age, material, diameter, and main break frequency in order to prioritize improvements and maximize the impact of the Village's investment into the water system.

Village of East Dundee – Water Master Plan, Distribution Model & Rate Study
The project included revisions of the distribution system model confirming results from the recent improvements, and identification of areas for future upgrades.
TAI provided multiple recommendations that were incorporated into the Village's 10-year Capital Improvements Program. TAI also prepared a rate study for future loan funding and in-house financing of smaller projects.

DuPage County Public Works – York Township 1 MG Elevated Water Tank
The Department of Public Works constructed a one-million gallon elevated water tank through an intergovernmental agreement with York Township. Trotter and Associates, Inc. provided value engineering, construction engineering services, and loan administration for the site improvements, distribution mains, and tower construction. This project included a single feed line from DuPage Water Commission for filling of the tower and a separate system outlet to supply water to the County's distribution system.

City of Elmhurst – 2019 Water Master Plan Update & North Booster Station Improvements
The City of Elmhurst contracted with TAI in January of 2019 to complete an in-depth update of the City's current Water Master Plan. This effort included reconciliation of the GIS database to historical water atlases, updates to the WaterGEMS/CAD hydraulic model, and outlining a new 5-Year Annual Water Main Improvements Program.

City of St. Charles – ISO Section 600 Water Study
This project included recreation of the Water Distribution Model from GIS using WaterCAD V8i and incorporating data from the City of St. Charles upgraded GIS system. The project also included performing a complete analysis of the water system to document its capacity with respect to the City's ISO rating. TAI completed Section 600 of the ISO evaluation, documenting available fire flows, pressures, and maintenance protocols for all distribution system components. This evaluation assisted in the City maintaining their Class 1 ISO rating.

City of St. Charles – 2018 Water Master Plan & Hydraulic Modeling
The City of St. Charles is beginning to experience growth once again and has elected to update its water master plan. The project included evaluation of pending development, current and future capacity needs, and identification of improvements requested to meet the City's long-term needs. The study focuses on evaluation of the existing

distribution systems ability to meet current ISO rating requirements, as well as the impacts of aging infrastructure. The City is also considering expanding its water production capacity, including the evaluation drilling additional wells, or the viability of connecting to DuPage Water.

Village of Elmhurst – Lake/Walnut Lift Station Replacement
Chris served as the Project Manager leading the evaluation and design of the City's Lake-Walnut Lift Station replacement project. Due to site constraints alternatives for rehabilitation were evaluated, and ultimately construction of a new lift station approximately 250 ft east of the existing, with a jack and bore sewer connection between the two was selected. Mr. Marschinke oversaw the design and construction of the $1.62M project which was completed in the fall of 2020.

DuPage County Department of Public Works – Nordic WWTP Facility
This project provided an analysis of DuPage County's Nordic WWTP, which serves unincorporated residents in Itasca. Aging infrastructure was evaluated to develop short and long-term solutions. TAI was subsequently selected to provide design engineering for the replacement of this facility which includes a raw sewage lift station, single-stage nitrification, tertiary clarification, closed-vessel UV disinfection, sludge storage, and a new operations structure. The $10.0M project was awarded in early 2021 with an anticipated completion of May 2022. Chris served as the Project Manager for all phases of the project.

Village of Bartlett – Raw Sewage Pump Station & Influent Grinder
The improvements included replacement/rehabilitation of the raw sewage pump station. The overall project included structural rehabilitation of the wet well, replacement of all pumps, pipes, and valves within the dry well, replacement of the motor control center, and installation of VFDs and a PLC controller connected to the SCADA system. During the rehabilitation of this pump station it was noted that a significant quantity of rags and debris had built up in the wet well and influent sewer lines in the absence of upstream screening or grinding. TAI assisted the Village with design and installation of a new influent grinder, including installation of an inline hydraulic channel grinder and coarse bar screen.

Wheaton Sanitary District – Intermediate Pump Station
The Intermediate Pump Station Rehabilitation project included replacement of the existing screw pumps which convey primary effluent / RAS mixed liquor to the existing aeration basins. Additionally, this project included an expansion of the pump station to roughly twice its original capacity and construction of a new enclosure building for the equipment. The project included controls integration and automation, with a construction cost of $4.2M.

DeKalb Sanitary District – Country Club Lift Station
This project included construction of a new regional lift station within the floodway. Improvements included construction of sanitary sewer, interceptor sewer and force mains. The lift station included a cast-in-place wet well with four submersible pumps, cast-in-place valve vault/operations building, which were designed to be flood-proof. The operations building included controls and VFDs, backup generator, flow monitoring, valves and piping.

City of Eldridge, Iowa – SBR Expansion and Biosolids Handling Facilities
TAI provided design services for the expansion of the City of Eldridge's sequencing batch reactor plant (SBR), including a doubling of the current biological process. Other improvements included the conversion of a Sludge Storage Tank into a third aerobic digester, construction of a new Dewatering building with belt filter press and an adjacent Sludge Storage Building. The facility had no disinfection requirements, and as such TAI designed a new UV facility. Chris was the Process Engineer-of-Record for this Project estimated at $14.8M construction cost.

City of Joliet
Waste and Storm Water Lift Stations Phase I Evaluations – Evaluation and improvement/replacement recommendations for 46 wastewater and stormwater lift stations that are owned and operated by the City of Joliet. This includes cost estimates for expected repairs and replacements and hydraulic (both gravity and forcemain) calculations.

Lawrence Avenue Lift Station Rehabilitation – Planning and design engineering for a lift station that was constructed in 1978. This project includes replacing portions of the existing wet well, lining of the wet well, and installation of new controls, pumps, generator, valve vault and meter vault.

Wheaton Sanitary District – Tertiary Filtration Conversion
TAI completed the design for conversion of the District's existing eight-cell Hydro-Clear sand filter system to a five-disc filter system. Disc Filter technologies were the focus of a study performed by TAI in 2011, as well as the Facility Plan Update completed in 2013. The selected technology was Kruger's inside-out, self-contained Hydrotech units. The existing building was overloaded at the facility's DMF of 19.1 MGD. The five-disc filter units provide a total capacity of 45 MGD and a firm capacity of 35 MGD. This allows the District to provide filtration of 15 MGD of excess flow prior to blending with process flow and discharging.

DeKalb Sanitary District – Phase 1A Biosolids Rehabilitation
The Phase 1A Biosolids Rehabilitation Project was funded through ARRA and included reconstruction of four anaerobic digesters, one sludge storage tank, a new Biosolids Operations Building, Biosolids Handling Building, and an off-site storage barn. The Biosolids Handling Building houses two gravity belt thickeners (GBT's), two centrifuges, WAS pumps, TWAS pumps, Digested Sludge Pumps, a pull-through truck bay, and all electrical and controls equipment. Chris was the Resident Engineer for this project.

Village of Glendale Heights – 2018 Facility Plan & Phosphorus Studies
Analysis of existing treatment plant and recommendations for capital improvements and maintenance over 20 year planning horizon. Included analysis of existing infrastructure, evaluation of future community needs, review of pending regulatory requirements, environmental impact study, and evaluation of funding alternatives for O&M and capital projects. In tandem, the Phosphorus Discharge Optimization Plan and Phosphorus Removal Feasibility Study was completed, identifying alternatives for future effluent limits.

Wheaton Sanitary District – 2017 Facility Plan & Phosphorus Studies
Project included creation of 20-year capital improvements and general replacement/rehabilitation plan based on existing conditions and processes. This document provided a roadmap for the next 20 years of improvements and rehabilitation at the WWTP. As a member of the DuPage River Salt Creek Workgroup (DRSCW) the District was also required to complete a PDOP and Phosphorus Removal Feasibility Study. TAI reviewed options for reduction of influent phosphorus, optimization of current treatment, and alternatives for long-term phosphorus reduction. Ultimately, the District is planning for implementation of an A2O BPR process.

Village of Addison – Sewer Separation and Detention Basin Project
The Village of Addison is implementing a major project to separate combined sewers in the Home Addition area, which is the largest remaining combined sewer tributary in the community.

The project includes separating the area's existing combined sewer system, which currently manages both wastewater and stormwater runoff, into separate sanitary and storm sewer systems. About three miles of new storm sewer, ranging from twelve to sixty inches in diameter, will be installed and directed to Salt Creek through an existing 84-inch relief storm sewer. To connect to the existing 20-foot-deep relief sewer, two custom-made junction chambers (10-foot by 12-foot and 8-foot by 10-foot) have been installed.

Another key part of the project is building a stormwater detention facility at Cherokee Park, which is the lowest point of the drainage basin and the area most vulnerable to flooding.

Since June of 2025, the contractor has completed approximately two and a half miles of storm sewer installation. The remaining sewer work and excavation of the detention pond are expected to be finished in the coming months.

Along with storm sewer upgrades, lead water services found during construction are being replaced. So far, 65 lead water services have been taken out of the Village's water system.

Once finished, the Village's sanitary sewer system will experience significantly lower flows during wet weather. This decrease in flows will help prevent basement backups, street flooding, and combined sewer overflow discharges previously suffered by the Village. The project will also lessen the volume of stormwater runoff treated at the AJL Wastewater Treatment Plant. It remains on schedule and is expected to be completed by summer 2026.

Village of Roselle – Jerry A. Botterman STP BNR Upgrade Project

The Village of Roselle has begun construction of the Biological Nutrient Removal Upgrade Project at its Jerry A. Botterman Sanitary Treatment Plant. The project incorporates recommendations outlined in the Village's 2022 Wastewater Facility Plan, which ensure compliance with future wastewater effluent regulations and improve the facility's reliability by replacing aging equipment.

The improvements include converting the existing Oxidation Ditch to a Biological Nutrient Removal process for phosphorus and nitrogen removal, construction of a Chemical Feed Building to allow Alum to be used to aid in the phosphorus removal process, and replacement of the Influent Screens and Final Clarifier equipment.

John Burns Construction Company began construction of the Chemical Feed Building in the fall of 2025, work is progressing as scheduled. Over the next year, Trotter and Associates will continue to work closely with the Village and John Burns Construction Company to help ensure the project's success.

CURRENT PROJECTS

Job #	Project Name	Role	Deadline
DPC017	WWTP Capital Improvements Planning & Digestion Rehabilitation	Sr. Project Manager	March, 2026
CCL012	City of Crystal Lake WWTP #2 and 3 Tertiary Filter and Rehabilitation	Sr. Project Manager	November, 2026
ROS2025	Village of Roselle - Devlin WWTF Expansion & Upgrades	Sr. Project Manager	July, 2026
GDH045	Village of Glendale Heights - WWTP Facility Plan	Sr. Project Manager	April, 2026
STC193	City of St. Charles - Well #8 WTP Rehabilitation	Sr. Project Manager	February, 2027
VOB011	Lift Station Controls Upgrades	Sr. Project Manager	October, 2026

Annette Winterland



EDUCATION
BS Environmental and Ecological Engineering
Purdue University

EXPERIENCE
7 months

REGISTRATIONS
Engineer in Training, E.I.T.

Staff Engineer

Ms. Annette Winterland obtained her Environmental and Ecological Engineering degree from Purdue University. During her time in college, Annette interned with the Village of Hanover Park where she oversaw construction of the Village's roadway resurfacing project. Annette also interned twice with Trotter and Associates, Inc. where she gained background in lift station and wastewater treatment facility rehabilitation projects, Illinois Environmental Protection Agency permitting, stormwater permitting, and the development of rate studies. Since beginning as a staff engineer at Trotter and Associates, Inc., Annette has worked on numerous Risk and Resilience Assessments for municipal drinking water infrastructure, Capital Improvements Planning report, and design of rehabilitation projects at multiple wastewater treatment facilities.

Relevant Experience

Village of Fox Lake – NWRWRF Rate Study
The Northwest Regional Water Reclamation Facility treats wastewater from twelve surrounding communities. Due to aging infrastructure, regulation changes, and inflation, the Village of Fox Lake decided to re-evaluate their current sewer rate structure to fund future improvement projects. TAI evaluated existing rate data, analyzed the costs experienced by the facility, and developed a rate report with recommendations for future rate structures. Annette was involved in the entirety of the project including cost estimation, rate recommendations, and report writing.

City of Woodstock – South Plant Improvements Phase 1
TAI is currently providing design, bidding, and construction engineering services for the City of Woodstock South Plant Improvements Phase 1. This project consists of rehabilitation of both aerobic digester and sludge thickening tanks, and the construction of a new chemical feed building for phosphorus removal. Annette was involved in permitting the project through the Illinois Environmental Protection Agency as well as preparing project specifications.



City of Crystal Lake – WWTP #2 and #3 Tertiary Filter Upgrades and Rehabilitation
TAI is currently providing planning, design, bidding, and construction engineering services for the City of Crystal Lake's WWTP #2 and #3 Tertiary Filter Upgrades and Rehabilitation. The project consists of replacing the raw sewage pumps, rehabilitating the primary clarifiers, and converting the existing sand filters to disc filters at WWTP #2. Additionally, at WWTP #3, the primary clarifiers will be rehabilitated and the existing sand filters will be converted to disc filters. Annette so far has been involved in permitting the project through the Illinois Environmental Protection Agency and working on the engineering plans.

▼ Relevant Experience

DuPage County Public Works – Woodridge Green Valley WWTP Improvements and Capital Planning
TAI is currently providing design, bidding, and construction engineering services for the Woodridge Green Valley WWTP Improvements and Capital Planning. This project includes rehabilitation of the anaerobic digestion process, replacement of the aeration basin diffusers, and modifications of the sidestream equalization basin. Additionally, TAI is developing a 20-year Capital Improvements Plan for the Woodridge Green Valley and Knollwood WWTPs. So far for the Anaerobic Digestion Rehabilitation project, Annette has been involved in site visits to measure and locate existing equipment and piping in the sludge treatment building to develop accurate engineering plan drawings. Additionally, Annette has begun conceptual design and cost estimates of numerous capital improvement projects including tertiary filtration and phosphorus removal projects at both WWTPs.

Village of Roselle – J.L. Devlin WWTF Plant Expansion and Phosphorus Removal Upgrades
TAI is currently providing preliminary design, final design, and bidding engineering services for the J.L. Devlin WWTF Plant Expansion and Phosphorus Removal Upgrades project. This includes numerous capital improvement projects such as plant expansion and phosphorus removal, grit removal rehabilitation, secondary clarifier replacement, and UV disinfection conversion. Annette worked on the DuPage County Stormwater Permit application for this project which included designing the site grading plan for stormwater conveyance, analyzing existing FEMA floodplain mapping, coordinating a wetland delineation, and designing best management practices for stormwater containment.

Village of Glendale Heights – Risk and Resilience Assessment and Emergency Response Plan Recertification Assistance
TAI is currently providing recertification assistance for the Village of Glendale Heights' RRA and ERP reports which were originally developed in 2021. These reports evaluate potential vulnerabilities and threats to drinking water infrastructure, provide recommendations to reduce the likelihood of threats occurring, and provide strategic responses to each of the vulnerabilities evaluated. Every 5 years, the RRA and ERP must be re-certified and re-submitted to the U.S. EPA. Annette has been involved in utilizing the EPA's Vulnerability Self-Assessment Tool to update the Village's water asset inventory and threat characterization based on projects completed since 2021. She has also worked on updating the RRA and ERP reports based on changes to the Village's infrastructure since 2021.

▼ Current Projects

Job #	Project Name	Role	Deadline
DPC017	WWTP Capital Improvements Planning & Digestion Rehabilitation	Staff Engineer	March, 2026
CCL012	City of Crystal Lake WWTP #2 and 3 Tertiary Filter and Rehabilitation	Staff Engineer	November, 2026
GDH050	Village of Glendale Heights Risk and Resilience Assessment & ERP Recertification	Staff Engineer	May, 2026
DWG002	Village of Downers Grove Risk and Resilience Assessment & ERP Recertification	Staff Engineer	May, 2026
OKB019	Village of Oak Brook Risk and Resilience Assessment & ERP Recertification	Staff Engineer	April, 2026

Mitchell Severson, P.E.



EDUCATION
BS Civil Engineering
University of Illinois – Urbana-Champaign

EXPERIENCE
7 years

REGISTRATIONS
Professional Engineer P.E., IL – 062.075160

CERTIFICATIONS
IDOT – Documentation of Contract Quantities – 24-21595

National Disaster & Emergency Management University – NFIP Floodplain Development Mgr. Cert.



PROJECT ENGINEER

Mr. Mitchell Severson is a graduate in Civil Engineering from the University of Illinois at Urbana-Champaign, with a focus on transportation engineering and construction management. He has experience in all three phases of federally funded and locally funded municipal projects and IDOT projects, including Phase 1 reports, funding acquisition, planning, design, and construction management and inspection. He has field experience in roadway construction, water main construction, bituminous paving, lighting, landscaping, and drainage.

RELEVANT EXPERIENCE

Village of Bartlett – 2026 MFT Roadway Resurfacing Project
TAI was engaged to design 6.59 miles of roadway resurfacing in the Village of Bartlett utilizing MFT funding. Due to the use of MFT funds, IDOT documentation was used to stay in accordance with IDOT procedure. The $4.0M project consisted of HMA pavement surface removal, Class D patching as necessary, combination concrete curb and gutter removal and replacement, sidewalk removal and replacement, ADA curb ramp upgrades, structure adjustments, HMA binder and surface courses, and landscape restoration. Mr. Severson was responsible for the QC/QA of contract quantities, contract documents and bidding. The design of the roadway improvements was completed in 2026.

Village of Indian Head Park – Pavement Analysis and Roadway Inventory
Mr. Severson performed pavement condition ratings for the Village's locally owned roads. The roadway inventory consisted of both rural and urban cross-sections of hot-mix asphalt pavement. Mr. Severson used a condition pavement rating system based on a modified version of WisDOT PASER Manual for Asphalt Roads, which assigns a 10 – point rating from 0 (poor) to 10 (excellent) based on visual assessment. All street condition ratings were input into a spreadsheet and weighted according to Village criteria such as ADT. Mr. Severson summarized the rankings and developed a 5-year improvement program for maintenance of the Village's assets. The final program scope recommendation included several types of pavement rehabilitation and maintenance treatments. In addition to completing the pavement analysis, Mr. Severson used a GNSS GPS receiver to collect professional grade positioning/mapping information and assigned the condition index values directly to the GPS line segment for incorporation into GIS format.

City of Woodstock Raffel Road Resurfacing Project – STP Funded
Provided Phase II Design Engineering for the $930k Raffel Road Resurfacing Project funded through an IDOT grant secured through the McHenry Council of Mayors. These services were performed throughout 2025 for construction in 2026. The work includes 1 mile of roadway resurfacing, traffic signal modification, ADA improvements at all intersections, curb and gutter R&R, as well as landscaping work.

Village of River Forest – 2021 Construction Engineering Services – Roadway Resurfacing and Alley Reconstruction
Mr. Severson provided Resident Engineering Services for the 2021 Street Resurfacing Program and 2021 Green Alley Improvements. The $585k Street Resurfacing Program consisted of 2.2 miles of roadway resurfacing on Keystone Ave (Division to Thomas and Hawthorne to Madison), Forest Ave (Division to Thomas and Hawthorne to cul-de-sac), Park Ave (Division to Augusta), Thomas St (Forest to Lathrop), Gale Ave (Hawthorne to Washington), Hawthorne Ave (Thatcher to Forest), and Linden St (Thatcher to Forest). Street Resurfacing improvements consisted of the removal and replacement of combination concrete curb and gutter, driveways, sidewalks, repairs to existing drainage structures, grinding of the existing pavement, adjustment to utility structures, and placement of hot-mix asphalt leveling binder and surface courses. The 2021 Alley Improvements consisted of the reconstruction of four (4) alleys including Park Avenue and Franklin Avenue alleys bordered by Hawthorne Avenue and Washington Boulevard.
The $797k Green Alley Improvements included the removal of the existing pavement and excavation for the proposed pavement and pervious paver cross section. The new alleys were constructed with pervious pavers placed along the middle of the alley with the adjacent sides reconstructed with concrete. The improvements included an underdrain along the centerline of each alley as well as connection to the existing storm sewer system. The alleys are surrounded by residential properties on all sides and required extensive coordination to minimize impacts to private property.

Village of Addison Sewer Separation – Detention Pond
As part of the 2025/2026 Addison Sewer Separation Project, a detention pond was constructed to hold and convey storm water during the most extreme rain events in the Village. The detention pond design consisted of over 198,000 cubic feet (4.55 acre-feet) of storage, with slopes at 5:1 H:V, a total depth of 10 feet. Stormwater conveyance consisted of a 12” RCP pipe into the pond from the west. A 6-inch PVC pipe underdrain running north and south along the center of the pond conveys any infiltrated stormwater into a 7-foot Type B Catch Basin in the center of the pond, which also receives any stormwater runoff from the pond as well. From the Catch Basin, the stormwater is conveyed east through a 24” RCP storm sewer into a customized drainage control structure. The structure was specially designed with grated window weirs at two separate elevations, which allow for higher flow rates of water into the structure to mitigate elevation of water levels. From the customized drainage structure, the water is conveyed via 42” RCP storm sewer back into the main system that was created by the overall Sewer Separation Project.

Village of River Forest – Annual Water Main, Street Improvement, and Alley Reconstruction Program – Construction Inspection
Mr. Severson provided Resident Engineer services for Phase III construction for the Village of River Forest’s 2019/2020 Water Main Program, 2020 Street Improvement Program, and 2020 Alley Reconstruction Program. The 2019/2020 Water Main Program was a combined $675K water main replacement program including the installation of approximately 610 lineal feet of 8” ductile iron water main on Keystone Ave and approximately 140 lineal feet of 12” ductile iron water main on Franklin Ave, along with installation of water main in casing under the Union Pacific (UP) railroad tracks. The 2020 Water Main Improvement Project locations included Thomas St, Iowa St, and Augusta St, between Thatcher Avenue and Forest Avenue and consisted of the installation of approximately 1,500 lineal feet of 8” ductile iron water main. The 2020 SIP was an $800K MFT resurfacing project that included over 41,000 square yards of hot-mix asphalt surface removal, 1,800 feet of combination concrete curb and gutter replacement, and over 10,000 square feet of sidewalk replacement, including ADA curb ramp upgrades. The 2020 Alley Reconstruction Project, located between Thatcher Ave and Gale Ave from Hawthorne Ave to Linden Street, included the reconstruction of the existing alley pavement with a new concrete pavement and a 3’ strip of permeable pavers down the centerline of the alley. Pipe underdrain was also included along the centerline of the alley and connected into the existing storm sewer system. The alleys were surrounded by residential properties on all sides and required extensive coordination to minimize impacts to private property.

Village of Oak Brook – Bath & Tennis Drive Improvement Project – Phase III
Mr. Severson provided Phase III resident engineer services for the Village of Oak Brook's 2024 Bath & Tennis Drive Improvement Project, which included hot-mix asphalt roadway resurfacing with the addition of concrete ribbon curb the length of the roadway, culvert removal and replacement, and ditch grading and shaping operations. The $460k project was located directly within a wetland area, which meant coordination with the Kane-DuPage Soil & Water Conservation District before, during, and after construction was necessary, and protective measures were proposed and enforced throughout the project lengths to ensure no damage to the wetlands. The project came in under bid price due to engineering changes in the field which helped to save money where certain upgrades were deemed unnecessary when inspected.

City of Wheaton – President & Blanchard Resurfacing Project – Phase III
For this 1.35 mile, $922k federally aided resurfacing improvement awarded to the City under the DuPage Mayors and Managers Conference (DMMC) FY 2019-2020 STP Surface Transportation Program (STP), Mr. Severson was staffed as Resident Engineer to oversee construction improvements in 2019 on Blanchard Street/President Street between Hawkins Circle and IL Route 38. The scope consisted of a typical LAFO project including HMA resurfacing with surface and binder courses, intermittent combination curb and gutter replacement, ADA curb ramp upgrades, pavement markings, and final restoration.

City of Wheaton – President Street LAFO Resurfacing Project – Phase I, II, and III
Mr. Severson completed Phase I, II, and III engineering for the 2020 President Street LAFO Resurfacing Project, located between Harrison Avenue and Geneva Road, a major north-south collector street in the heart of Wheaton. This $677K project consisted of 1.02 miles of conventional STP resurfacing with HMA surface removal, leveling binder, HMA surface course, Class D patches, ADA curb ramp upgrades, curb and gutter removal and replacement, utility structure adjustments, detector loop replacements, and thermoplastic pavement markings. Mr. Severson assisted in obtaining Phase 1 Design Approval, as well as with the plan design and specifications in Phase II, and was the Resident Engineer overseeing the construction phase as well.

Village of Fox Lake – 2025 MFT Roadway Improvement Project – MFT Funding
TAI was engaged to design and oversee the construction of 1.14 miles of roadway rehabilitation within the Village of Fox Lake utilizing MFT funding. The $867k project consisted of Full Depth Reclamation (FDR) with cement and base stabilization. Due to the use of MFT funds, IDOT documentation was used to stay in accordance with IDOT procedure. Mr. Severson was responsible for the review of the design, the preparation of the contract documents, and the execution of the contract via MFT funding documentation and coordination with IDOT. Mr. Severson also assisted with construction observation as necessary when more field engineers were needed to watch production. The project was completed on time and under budget.

Village of Fox Lake – 2026 MFT General Maintenance Roadway Resurfacing Project
TAI was engaged to design and oversee the construction of 1.7 miles of roadway resurfacing within the Village of Fox Lake utilizing MFT funding. Due to the use of MFT funds, IDOT documentation was used to stay in accordance with IDOT procedure. The $1.04M project consisted of HMA pavement surface removal, Class D patching as necessary, combination concrete curb and gutter removal and replacement, sidewalk removal and replacement, ADA curb ramp upgrades, structure adjustments, HMA binder and surface courses, and landscape restoration. Mr. Severson was responsible for the prepration and execution of the contract documents.

Village of Lisle – Burlington Avenue Reconstruction Project – Phase I and II Services
Mr. Severson helped to provide Phase I and Phase II engineering services in 2024 for the reconstruction of Burlington Avenue between Yackley Avenue (west) and Illinois Route 53 (east), approximately 3,750 lineal feet (0.71 miles). The

project generally consists of roadway reconstruction and flood mitigation improvements, featuring conversion of Burlington Avenue from a rural unimproved cross-section to an urban cross-section with on-street (shared lane) pedestrian facilities. Flood mitigation is a major component to the project near the East Branch DuPage River, which transects Burlington Avenue approximately 850 feet west of Illinois Route 53, and portions of the proposed improvements are within the regulatory floodplain. The project also includes the replacement of approximately 3,000 lineal feet of eight-inch (8") diameter water, lining of approximately 400 lineal feet (estimated) of eight-inch (8") diameter water main, and upsizing of the existing storm sewer along Burlington Avenue to accommodate future drainage improvements planned north of the project limits. The project followed design controls for Urban Reconstruction roadway improvements and qualified for State Approved Categorical Exclusion and Design Approval using the State BLR Form 22210 Local Project Development Report for Group II Categorical Exclusions and Design Approval.
With planned improvements located under DuPage County's jurisdiction at Yackley Avenue and IDOT's jurisdiction at Illinois Route 53, Mr. Severson coordinated improvements and permits with DuPage County Division of Transportation (DuDOT) and IDOT District 1. Mr. Severson also completed the Environmental Survey Request (ESR) receiving all three clearances for Cultural, Biological, and Special Waste.

Village of Woodridge – Janes Avenue Reconstruction – Phase I and II
Mr. Severson provided Phase I and Phase II design engineering services between 2019 and 2023 for this $2.3 million federally funded STP project, utilizing STP federal funds administered through the DuPage Mayors and Managers Conference (DMMC). The project consisted of the reconstruction of Janes Avenue, between 75th Street and Spring Street. The net length of improvements was approximately 0.76 miles. The project scope included full-depth pavement reconstruction and 12" aggregate subgrade replacement, utility adjustments, intermittent curb and gutter replacement, intermittent sidewalk replacement, and ADA curb ramp upgrades. Mr. Severson obtained Phase 1 Design Approval, a DuPage County right-of-entry permit, designed the plan sheets, wrote the specifications for the project, and coordinated with the DuPage County Division of Transportation (DuDOT) for the use of 75th Street and Wooward Avenue as parts of the construction detour.

Village of Woodridge – Woodridge Drive Reconstruction – Phase I and II
Mr. Severson provided Phase I and Phase II design engineering services between 2019 and 2024 for this $2.5 million federally funded STP project, utilizing STP federal funds administered through the DuPage Mayors and Managers Conference (DMMC), scheduled for construction in FFY 2025. The project consists of the reconstruction of Woodridge Drive, between Hobson Road (FAU 3567) and Center Drive (FAU 3573). The net length of improvements is approximately 0.66 miles. The project includes full-depth pavement reconstruction and 12" aggregate subgrade replacement, intermittent curb and gutter replacement, intermittent sidewalk replacement, and ADA curb ramp upgrades. With planned improvements located near DuPage County's jurisdiction at Hobson Road, Mr. Severson coordinated plans with DuPage County Division of Transportation (DuDOT) to obtain a right-of-entry permit for detector loop work on Hobson Road, as well as coordinated with DuDOT and IDOT for the use of 75th Street, IL Route 53, and Hobson Road as the proposed route for the construction detour. Mr. Severson helped to coordinate these efforts with the County and State along with obtaining Phase I Design Approval through IDOT utilizing Design Variances for certain aspects of the project that were not up to IDOT District 1 standard for reconstruction projects, but the Village did not feel pertinent to improvements.

Village of Fox Lake – Hillside Court – Phase III Project Manager
TAI was engaged to design and oversee the deconstruction of a failing steel sheet pile retaining wall, the construction of a timber lagging soldier pile wall, over 100 LF of storm sewer, a storm inlet, a segmental block retaining wall, gabion baskets, a riprap ditch, and an elevated boardwalk rehabilitation for pedestrian access to their home. Project complexities included a confined right-of-way, the need to deconstruct a significant portion of the roadway to accommodate the soldier pile wall, and slopes exceeding 50% at locations where stormwater structures were

installed. With the project complexities coordination with residents and emergency services were critical to ensure access to homes during construction. In 2025, Mr. Severson handled the project management aspect of the work, coordinating field changes with the Village and ensuring all residents and stakeholders involved in the project were aware of the happenings on site and how the work may impact them.

Village of Lisle – Ohio Street/Ohio Court/Short Street Resurfacing Project – Phase I and II
Mr. Severson assisted in providing professional engineering services for this federally funded local agency project with a total cost of $695K. The project was situated between Yackley Avenue and IL Route 53 in the heart of the Village of Lisle's municipal campus with residents including Lisle High School, Lisle Park District, Lisle Public Works, and the Lisle Police Department. The scope of improvements included HMA surface removal and replacement, pavement patching and reflective crack treatment, sidewalk and ADA ramp upgrades, HMA and PCC driveway replacement, pedestrian signal upgrades, solar-powered radar speed sign installation, bike path and roadway signage, and pavement markings. In 2022 and 2023, Mr. Severson obtained STP funding, DuPage County permitting, and IDOT permitting for the project in Phases I and II, as well as designed the roadway improvements.

Village of Lisle – Abbeywood Drive and Green Trails Drive LAFO Projects – Phase I and II
Mr. Severson assisted with both the Phase I and Phase II engineering services for the federally funded Abbeywood Drive (08-19-0005) and Green Trails Drive (08-17-0016) LAFO Projects. The projects were programmed for FY 2020 construction with a total cost of $475K and $498K, respectively, for resurfacing approximately 0.75 miles between Naper Boulevard and College Road. The proposed improvements included the milling and resurfacing of the existing asphalt surface of the roadway. Mr. Severson helped obtain STP funding for the project as well as permitting in Phase I and designed the roadway layout for pavement markings and ADA curb ramp design throughout the project limits.

City of West Chicago – Harvester Road Reconstruction Project – Phase I and II Services
Mr. Severson provided Phase II design engineering services in 2023 and 2024 for the City of West Chicago's Harvester Road Reconstruction Project. The improvement was a $3.8M project which included roadway reconstruction and widening with PCC, street lighting improvements, utility improvements to sewers, and concrete work such as sidewalk installation and curb & gutter and driveway removal and replacement. His services included right-of-entry permitting for DuPage County's Powis Road located at the west end of the project, lighting layout, design, and coordination with ComEd for power connection location and service requirements, and general plan design and specifications regarding plan callouts and pay items.

City of West Chicago – Conde Street Resurfacing and Street Lighting Project – Phase I and II Services
Mr. Severson provided Phase I and Phase II engineering services in 2022 and 2023 for this $700K federally funded STP project, which consisted of the resurfacing of Conde Street, between Joliet Street and IL Route 59, and installation of street lighting. The project featured Hot-Mix Asphalt (HMA) surface removal and HMA binder and surface course installation, thermoplastic pavement markings, curb and gutter replacement, sidewalk and ADA curb ramp replacement, and new continuous LED street lighting. Mr. Severson completed the State BLR Form 19100 Categorical Exclusion Group I with a Project Development Report (PDR) and received Design Approval for this project prior to completing plans, specifications, and estimates in Phase II for the project.

Village of Woodridge – 2021 MFT Resurfacing Project – Phase II and III
Mr. Severson provided Phase II design and Phase III construction engineering services in 2021 for this $1.6M MFT funded pavement resurfacing and reconstruction project. The total length of the project was 14,643 feet over 19 project locations including Roberts Drive, Martin Drive, Kincaid Drive, Martin Court, Koloff Court, Carpenter Court, Langley Court, Rosebury Avenue, Britten Street, Meadowwood Avenue, Chesham Court, Longford Street, Redcliffe Street, Pembridge Avenue, and Hanover Street. Alternate pavement reconstruction areas locations included Creekside Court, Stable Road, Essex Court, and Meyer Road. The scope of work included HMA Surface Removal, HMA

Paving, Sidewalk Repairs, Curb Repairs, Driveway Repairs, Utility Structure Adjustments, Pipe Underdrains, Pavement Markings, and Final Restoration. Mr. Severson assisted in preparing final plans and MFT specifications and securing IDOT approval, as well as assisted in providing construction inspection services in the field.

Lake Barrington Shores Community – Stormwater Management Plan
TAI was tasked with updating mapping, creating a GIS of the storm sewer system, writing of a BMP Report, and producing a CIP for the Lake Barrington Shores Community storm sewer system. TAI surveyed the whole storm sewer system, noting any failures of structures along the way, and with this information created an estimate for repairing and maintaining of the system. The CIP included costs for televising, lining, and replacing pipe as well as costs for stream bank stabilization, erosion control methods, and reversing stream siltation. The CIP was completed in 2025.

City of West Chicago – Technology Boulevard Resurfacing Project – Phase I and II Services
Mr. Severson helped to secure the funding, as well as assist in bringing the project to IDOT letting, for the Technology Boulevard Resurfacing Project within the City of West Chicago. His Phase I services included compiling the information necessary onto the eTIP website for STP funding and completing the appropriate application for the funding, coordinating with utilities, local businesses, and entities to ensure proper communication between the City and the project's stakeholders, and securing Phase I Design Approval through IDOT District 1. With IL Route 38 at the northern terminus, and Fabyan Parkway at the southern terminus, coordination with IDOT and DuPage County DOT was necessary for their respective roadways for right-of-entry and future planning along the corridors. Coordination with both entities was handled by Mr. Severson. Mr. Severson's Phase II services included project plan development, drafting specifications, continuing coordination with local entities for ease of communication, and contract bid development for IDOT construction letting.

City of West Chicago – Forest Avenue Resurfacing and Street Lighting Project – Phase II And III
In 2018 and 2019, Mr. Severson helped to provide planning, design, and construction engineering services for this $580K STP funded pavement resurfacing and street lighting project for the City of West Chicago's Forest Avenue Resurfacing and Lighting Project. The net length of the improvement was 2,559 feet (0.48 miles). This project was located along Forest Avenue between Joliet Street and IL Route 59. As part of this project, the City completed the sidewalk network surrounding the nearby Leman Middle School by installing approximately 750 feet of new PCC sidewalk. In addition, street lighting was added to the project corridor to improve pedestrian and vehicular safety for nighttime conditions. The improvement included HMA resurfacing, intermittent combination curb and gutter replacement, intermittent sidewalk replacement, pavement markings, ADA curb ramp upgrades, rigid conduit, unit duct, a new lighting controller, street lighting assemblies, and landscape restoration. Mr. Severson assisted with the lighting layout and performed construction inspection services as needed throughout the project duration.

City of Warrenville – 2022/2023 CDBG Road Program – Phase II and III
This $1M neighborhood investment project included roadway improvements throughout the Summerlakes Square Courts Area of Maplewood Drive, Maplewood Court, Cottonwood Court, Dogwood Court, Lindenwood Drive, Linden Square, Wood Court, and Wildwood Court. Mr. Severson assisted in Phase II design engineering as well as Phase III construction inspection of the work, which consisted of asphalt resurfacing, pavement patching, sidewalk replacement, and curb and gutter replacement. Mr. Severson's Phase II professional engineering services included preparation of base maps, utility coordination, determination of plan quantities, preparation of project specifications, preparation of the bid manual, DuPage County coordination, and bid assistance.

City of Wheaton – Lorraine Road Resurfacing Project – Phase I and II
Mr. Severson assisted in the completion of Phase I and II engineering services in 2023 and 2024 for the Lorraine Road Resurfacing Project between IL Route 38 and Hill Avenue in the City of Wheaton. This $460K federally funded project consists of approximately 0.70 miles of conventional STP resurfacing with HMA surface removal, leveling binder, HMA

surface course, Class D patches, ADA curb ramp upgrades, curb and gutter removal and replacement, utility structure adjustments, and thermoplastic pavement markings. The project followed design controls for LAFO resurfacing and qualified for State Approved Categorical Exclusion and Design Approval using the State BLR Form 46300 Categorical Exclusion Group I. Mr. Severson assisted in obtaining funding and Design Approval in Phase I, and completed the plan design, specifications, and estimates in Phase II.

Village of Vernon Hills – Vernon Hills Athletic Complex (VHAC) Parking Lot Expansion – Phase II

The Vernon Hills Athletic Complex (VHAC) Parking Expansion Project is located within the 41-acre complex owned by the Village of Vernon Hills. The complex is comprised of approximately 27 fields including baseball, softball, soccer, lacrosse, tennis courts, and football fields. The existing parking facilities located at the VHAC needed expansion to serve local and regional sporting events throughout the year.

Mr. Severson assisted in preparing alternatives and a final design for parking lot expansion near 307 Nike Parkway. He also obtained the NPDES permit through the IEPA, which dealt with stormwater detention for the new impervious areas introduced to the site. Proposed site improvements included earth excavation, enclosed storm sewer drainage improvements, granular subgrade and subbase, full-depth pavement, final pavement markings, street lighting, ADA accessible facilities, and final landscaping and restoration.

Village of Mount Prospect – 2022 Water Main Replacement Project – Phase II

Mr. Severson assisted in the design of this $4 million 2022 Water Main Replacement Project, which consisted of approximately 12,000 linear feet of water main replacement at seven (7) locations throughout the Village. Work included the replacement of existing water main with zinc coated, ductile iron water main by both open cut and directional drilling methods, storm sewer and sanitary sewer replacement with water main quality pipe where necessary, trench backfill, pavement patching, HMA surface course, driveway apron removal and replacement, and landscape restoration.

Village of Indian Head Park – 2021 Road Repair Project, Indian Head Park, Illinois – Phase II

Mr. Severson assisted in providing final Phase II design engineering services for over 1 mile of street resurfacing on local streets within the Village of Indian Head Park. Improvements are located at Indianwood Lane, Sequoya Lane, Hiawatha Lane, Timber Ridge Court, and 65th Street. Work included pavement surface removal, intermittent curb and gutter removal and replacement, full-depth pavement patching, partial-depth pavement patching, utility structure adjustments, aggregate shoulders, grading and shaping ditches, stabilization of ditches and culvert flared end sections, pipe underdrains, resurfacing with hot-mix asphalt level binder and surface courses, and landscape restoration. Mr. Severson helped to prepare removal/replacement plan sheets for the project.

Village of Carol Stream – Schmale Road Water Main Project – Phase I and II

This project involved Phase I and II study and design of this $3M Schmale Road Water Main Replacement Project. Mr. Severson's scope of services consisted of alternatives analysis and design for removal and replacement of approximately 7,000 feet of old 10" and 12" deteriorated water main with poly-wrapped ductile iron water main along with new valves and hydrants on Schmale Road (DuPage CH 36), between St. Charles Road (DuPage CH 7) and Geneva Road, and St. Charles Road, between Schmale Road and President Street.

City of West Chicago – Fair Meadows Subdivision Rehabilitation Project – Phase II Services

Mr. Severson provided Phase II design engineering services for the City of West Chicago's Fair Meadows Subdivision Rehabilitation Project. This nearly $1.5M project included pavement milling and hot-mix asphalt resurfacing with full-depth HMA pavement patching as needed, intermittent concrete sidewalk and combination concrete curb and gutter removal and replacement, sewer and structure repairs, water main replacement, street lighting installation, and thermoplastic pavement markings. Mr. Severson's services for the project were limited to initial sidewalk and curb and gutter improvement locations and street lighting design and coordination with ComEd for power.

Village of Schaumburg – Plum Grove Road Street Light Gap Program – Phase II
Mr. Severson provided Phase II design services for the installation of a new street lighting system on South Old Plum Grove Road, between Algonquin Road and Hartung Road (approximately 1,750 lineal feet (0.33 miles)). The work consists of the installation of eleven (11) new 27' 8" Valmont spun aluminum round tapered poles, 15' mast arms, Cree Lighting® RSWTM LED Street Luminaires – Large, Akron TB6-9 breakaway transformer bases, metal Helix light pole foundations, unit duct, galvanized steel conduit, cable, lighting controller, electrical service installation and connection, and final site restoration.

Village Of Fox Lake – Fox Lake Pavement Analysis and Roadway Inventory
Mr. Severson performed pavement condition ratings for over 50 centerline miles of locally owned roads. The roadway inventory consisted of multiple types of pavement composition. Mr. Severson used a condition pavement rating system based on a modified version of WisDOT PASER Manual for Asphalt Roads, which assigns a 10 – point rating from 0 (poor) to 10 (excellent) based on visual assessment. Mr. Severson helped to input the roadway functional class, or designation, of the roadways including, but not limited to, local, private, township, County, State, US, and Federal-Aid Urban (FAU) routes to assist the Village in determining federal funding eligibility. All street condition ratings were input into a spreadsheet and weighted according to Village criteria such as ADT. Mr. Severson summarized the rankings and developed a 5-year improvement program for maintenance of the Village's assets. The final program scope recommendation included several types of pavement rehabilitation and maintenance treatments. In addition to completing the pavement analysis, Mr. Severson used a GNSS GPS receiver to collect professional grade positioning/mapping information and assigned the condition index values directly to the GPS line segment for incorporation into GIS format.

Village of Woodridge – Woodward Avenue Resurfacing Project – Phase I and II
Mr. Severson provided Phase I and II engineering services for the Woodward Avenue LAFO Resurfacing Project (TIP ID 08-18-0017). This project was programmed with a total cost of $960,360 for resurfacing 1 mile between 75th Street and the north Village Limit located between Wheeler Street and Oxnard Drive. The proposed improvements included the milling of the existing asphalt surface of the roadway. The improvements included replacing the surface with a Polymerized Leveling Binder and an HMA Surface Course. Mr. Severson assisted in obtaining Phase 1 Desing Approval for the project as well as with the Phase II design engineering.

▼ CURRENT PROJECTS

Job #	Project Name	Role	Deadline
FXL	Fox Lake Resurfacing	Project Engineer	September, 2026
VOB012	Bartlett 2026 Various Streets	Sr. Project Manager	July, 2026
TOP001	Prestbury 2026 Resurfacing	Project Engineer	August, 2026

Terry M. Heitkamp, P.E.



EDUCATION
BS Environmental Engineering
University of Wisconsin – Platteville

A.S. Highland Community College

EXPERIENCE
25 Years

REGISTRATIONS
Professional Engineer, P.E.

CERTIFICATIONS
IDOT Erosion & Sediment Control

PROFESSIONAL ORGANIZATIONS

ACCOMPLISHMENTS

PRESENTATIONS



▼ Project Engineer

Mr. Terry Heitkamp has over 25 years of experience in planning, design, and construction administrations of various water and wastewater engineering projects. These projects have included: water treatment systems, pump stations, elevated water storage tanks, water main replacement and extensions, water supply wells, wastewater treatment plants, lift stations, force mains, and system rehabilitation (cured-in-place pipe). He also has extensive experience in plan review services for private, residential, and commercial developments.

▼ Relevant Experience

Village of Oswego – Reserve at Hudson Crossing – ($4.0M)
Provided design (2019) and construction (2021-2022) engineering services for the development of two new apartment complex buildings. Site design included: roadway, parking layout, utilities (sanitary, water main, storm sewer), lighting, and landscaping. The project involved: IDOT and railroad permitting right-of-way; Park District; and various utilities (electric, fiber, cable, and gas). Access improvements from Route 34 were designed in accordance with IDOT BDE requirements and were permitting by IDOT. Vehicle turning movements were reviewed with the roadway design. Stormwater modeling and hydraulics was completed due to 100-year floodplain on-site and discharged to the Fox River and permits were obtained from IDNR.

Village of Algonquin – Downtown Streetscape Wet Utility – Stage 3 – ($7.2M)
Provided design (2019) and construction (2020-2021) engineering services for Village of Algonquin's Interceptor Sewer from the River Front Lift Station to a new lift station located at Triangle Park. Approximately 1,700 linear feet of existing water main will be replaced with a new 8-inch ductile iron main and 3,900 feet of existing 16" and 18" sanitary sewer will be replaced with 24" and 30" PVC pipe. Traffic control, detour routes, and permitting was involved when crossing Route 62.

City of Sycamore – 2023 Water Main Replacement & Roadway Resurfacing Project – (Water Main: $2.2M & Roadway: $350K)
To improve City-wide fire flows, pressures, and water quality, The City of Sycamore focused on a section of water main along DeKalb Avenue, Elm Street, and Sacramento Street that has historically presented frequent breaks. Approximately 2,100 feet of 4"/6" water main was replaced with 8". Following the water main installation, the City secured IDOT STP funding for resurfacing of DeKalb Avenue. Provided design (2022) and construction services (2023) from both water main and roadway resurfacing phases of the project.

Village of Algonquin – High Hill Park Sanitary Sewer Relocation - ($2.2M)
Provided design services (2025) to upsize and relocate approximately 5,500 lineal feet of 8" & 10" sanitary sewer out of the existing wetland and floodplain limits. Sewer capacity analysis was provided for the future development growth within the service area. The project was split into two phases and consists of approximately 2,500 feet of 16-inch (Phase 2) and 3,000 feet of 18-inch (Phase 1) PVC pipe. Phase 1 is under construction this year 2026 with Phase schedule for construction in 2027.

Village of Algonquin – Janaks & Wecks Subdivisions - Water and Sewer Feasibility Study – ($27.3M)
Provided a feasibility study (2025) for replacement and relocation of the existing water mains and sanitary sewers within the Janaks (~155 acres) & Wecks (~55 acres) Subdivisions. A large portion of the sanitary main exists within the backyards of the residential lots in these neighborhoods making access and maintenance difficult. Cost estimates along with phasing plans were prepared for the full replacement & relocation option along with option for full rehabilitation of the existing sanitary sewer system in-place.

Northern Moraine WRD – Holiday Hills / Le Villa Vaupell Sewer Extension – ($18.2M)
Provided design service (2021) for the Northern Moraine Wastewater Reclamation District's sewer extension project in the unsewered community of the Village of Holiday Hills and Le Villa Vaupell subdivision. The design included approximately 27,000 lineal feet of sanitary sewer (8", 10" and 12") which will convey flows from 335 existing residential properties to a new duplex lift station capable of pumping 650 GPM through 3,900 feet of 10" force main to the existing interceptor sewer. Permitting was required through the United States Army Corps of Engineers, McHenry County Stormwater, and Illinois Environmental Protection Agency due to the proximity of the work to the Fox River and the 100-year floodplain. Phase 1 of the project which included the trunk sewer, force main, and lift station was completed in 2023. Construction of Phase 2 is schedule to be completed by end of 2026, with final Phase 3 & 4 anticipated to be completed within next few years.

Village of Bartlett – Herrick House Lift Station and Force Main Rehabilitation – ($1.4M)
Provided design (2021) and construction (2023) services for a lift station rehabilitation and force main replacement. The project consisted of over 4,700 lineal feet of 8" directionally drilled PVC force main with HMA patching. The existing dry pit pump station was converted into a submersible station with USEMCO Pump Mate packaged station.

Sead Sejdiu, E.I.T.



EDUCATION
BS Civil and Environmental Engineering
University of Illinois – Urbana Champaign

EXPERIENCE
3 Years

REGISTRATIONS
Engineer in Training, E.I.T., IL

CERTIFICATIONS
Illinois Department of Transportation – Documentation of Contract Quantities – 25-23700 (Effective 6/27/25)

Lake County Stormwater Management Commission – Enforcement Officer (Effective 2/2/26)

NAASCO – PACP , LACP, MACP – P0059487-042026 (Effective 4/16/2026)

PROFESSIONAL ORGANIZATIONS
APWA Member

IAFSM Member



Staff Engineer

Mr. Sead Sejdiu obtained his Civil Engineering degree from the University of Illinois at Urbana-Champaign, with a focus on transportation and construction management. He has experience in the design and construction of roadway improvement projects funded by MFT and local funds. He has overseen construction projects that included installation of storm sewer, water main and services installation, installation of sanitary main and services, and installation of retaining walls. Sead has successfully managed multiple road programs. His design experience includes roadway resurfacing, underground utilities, developing stormwater management plans, site drainage plans, overseeing a sewer separation project, and contributing to a detention basin project.

Relevant Experience

Village of Bartlett – 2026 MFT Roadway Resurfacing Project
TAI was engaged to design 6.59 miles of roadway resurfacing in the Village of Bartlett utilizing MFT funding. Due to the use of MFT funds, IDOT documentation was used to stay in accordance with IDOT procedure. The $4.0 M project consisted of HMA pavement surface removal, Class D patching as necessary, combination concrete curb and gutter removal and replacement, sidewalk removal and replacement, ADA curb ramp upgrades, structure adjustments, HMA binder and surface courses, and landscape restoration. Mr. Sejdui was responsible for the field evaluations, quantities, contract documents and bidding. Contact completion 2026.

City of North Chicago – 2024 Pavement Assessment
Mr. Sejdiu performed the pavement assessment for the City of North Chicago, utilizing the RoadBotics software system. The assessment was completed by Mr. Sejdiu driving the roadways of the City while the RoadBotics system collected the appropriate data. After driving the roadways, the information was uploaded to the RoadBotics system, which created a heat map of the system and an accommodating spreadsheet that denotes the roadway segment, its length, and its rating. Mr. Sejdiu sifted through the data, extracted the appropriate information for future use, and coordinated the results with the City with suggestions for future projects.

City of Woodstock – Pavement Assessment
Mr. Sejdiu performed the pavement assessment for the City of Woodstock, once again utilizing the RoadBotics software system. The assessment was completed by Mr. Sejdiu driving the roadways of the City while the RoadBotics system collected the appropriate data. After driving the roadways, the information was uploaded to the RoadBotics system, which created a heat map of the system and an accommodating spreadsheet that denotes the roadway segment, its length, and its rating. Mr. Sejdiu sifted through the data, extracted the appropriate information for future use, and coordinated the results with the City with suggestions for future projects.

Village of Fox Lake – 2024 Roadway Program
TAI designed the rehabilitation of 1.2 miles of residential street within the Village of Fox Lake. Design included existing pavement pulverization and new HMA surface course. Stormwater was analyzed to maintain conveyance and outfall patterns. Wetlands and floodplain were prevalent to the site which included mitigation analysis and permitting. Construction included Full Depth Reclamation (FDR) with cement, base stabilization, milling, and resurfacing. Sead completed construction inspection in 2025.

Village of Fox Lake – Nippersink Boulevard Relocation
TAI was engaged to design and oversee the construction of a new roadway within the Village of Fox Lake. The roadway design consisted of 530 LF of new roadway connecting Forest Avenue to the old Nippersink Road terminus. The existing Nippersink Road was reconfigured to terminate at the new Lakefront Park development and the existing alignment connecting to Oak Street was removed. Project design intricacies included grading down a 14% hillside slope, adding new watermain, stormwater capture, conveyance, and infiltration, and a retaining wall mirroring the existing Village wall near the Metra station.
Wetlands and floodplain were prevalent to the site which included mitigation analysis and permitting. Performing construction observation duties involving inspection services for 535 LF of watermain, 550 LF of storm sewer, retaining wall installation, subbase integrity, base construction, and pavement installation. The project's successful low bid was $1.4 million, and the project was completed on schedule, and under budget. Sead completed the construction inspection in 2025.

Glenbard Wastewater Authority – Parking lot Improvements
TAI was engaged in designing and construction oversight of the Glenbard Wastewater Authority (GWA) parking lot. This parking lot was constructed from asphalt paving and is undersized for the number of staff and visitors to the GWA administrative building. TAI included additional parking in front of the building, while minimizing the impacts of stormwater runoff volume and quality to the East Branch DuPage River, which is immediately downstream of the project site. The proposed parking lot design incorporated Post Construction Best Management Practices (PCBMPs) in addition to increasing the parking stall count. The project scope included verifying the pavement type for the new parking lot whether it be pervious pavers or asphalt, stormwater management as required by Village code, and coordinating with the Village of Glen Ellyn and their engineer to incorporate the design plans and specs into their roadway program. Sead completed the construction inspection in 2024.

Village of Fox Lake – 2025 MFT Roadway Program
TAI was engaged to design and oversee the construction of 1.14 miles of roadway rehabilitation within the Village of Fox Lake. The project consisted of Full Depth Reclamation (FDR) with cement, base stabilization, milling, and resurfacing. Due to the use of MFT funds, IDOT documentation was used to stay in accordance with IDOT procedure. The project was completed on time and under budget. Sead completed the construction inspection in 2026.

Village of Fox Lake – Hillside Court
TAI was engaged to design and oversee the deconstruction of a retaining wall, the construction of a timber lagging soldier pile wall, over 100 LF of storm sewer, a segmental block retaining wall, gabion baskets, and a riprap ditch. Project complexities included a confined right-of-way, the need to deconstruct a significant portion of the roadway to accommodate the soldier pile wall, and slopes exceeding 50% at locations where stormwater structures were installed. With the project complexities coordination with residents and emergency services were critical to ensure access to homes during construction. Sead completed the construction inspection in 2026.

City of North Chicago – Argonne Drive
TAI engaged in Phase I and Phase II of the reconstruction of Argonne Drive. TAI was allocated just over $11.3 Million in STP funding in Phase I. Sead was tasked with searching and reviewing phase II plans, for relevant design standards

in the BDE and BLRS for intersections, medians, on street parking, driveways, tapers and storage, road cross sections, and bike paths. Phase II is ongoing.

City of Woodstock – 2024 Street Improvement Program
TAI engaged in Phase II and Phase III of the rehabilitation of various streets within Woodstock. TAI was allocated just over $5.7 Million in Village funding for Phase II. Sead was tasked with the inspection of the paving, sidewalk, and curb installation. This included documentation, quantity measurements, erosion control inspection, and coordination between Village, TAI, and Contractor. Completion of Phase III was in 2024.

J Condon and Associates – Ridgefield Road Roundabout
TAI engaged in design of a mini roundabout in Crystal Lake Illinois. Sead worked on the design and coordinated with McHenry County Division of Transportation to meet local design standards. He also researched into the Geometric Design of Highway and Streets for design standards of roundabouts. Project was put on hold due to developer funding.

Midwest Groundcovers – Turning Lanes
TAI was tasked with design and permitting of turning lanes of on Route 64 into the Midwest Groundcovers. Sead was tasked with Hydrology and Hydraulic permitting with IDOT. One of the intricacies of design was an existing detention pond near the IDOT right of way that was not permitted through IDOT when it was first built. The existing conditions had the IDOT right of way discharging into the pond, but the invert of the discharge pipe was lower than the normal water level of the pond. IDOT requires no standing water in pipes and manholes, so proposed design changed the flow path to stay in IDOT right of way. Phase II is ongoing.

Village of Fox Lake – Lead Service Line Replacement
TAI was engaged to secure funding from the Illinois Environmental Protection Agency (IEPA), design, and manage the replacement of approximately 200 homes in Fox Lake. TAI successfully secured $2,755,000 in Principal Forgiveness from the IEPA for the project. The project's successful low bid was $1,584,872.25. TAI coordinated with residents to schedule inspections and facilitate the removal and replacement of water services at each home, ensuring smooth execution and minimal disruption. Sead completed the construction inspection in 2026.

Village of Addison – Sewer Separation & Detention Basin
TAI was tasked with designing and overseeing the construction of separating over 26,000 linear feet of combined sewer ranging from 8-inch to 54-inch in diameter. The design included modeling of the stormwater system to design the location and size of a detention basin. Sead performed the QA/QC of hydrological and hydraulic modeling with the use of PCSWMM, which uses the EPA SWMM5 computational engine. He also contributed to the design of the storm sewer, detention basin design, and the rehabilitation of pavement. He oversaw a portion of the construction and communicated with the Village and Contractor to work through unforeseen circumstances (e.g. lead services, failing sanitary structures, watermain break). Sead completed the design and construction inspection for project completion in 2026.

Village of Volo – Oaks of Volo
As the Village Engineer for Fox Lake TAI was tasked with inspecting the sanitary sewer installation for a new development that was connecting to the Village of Fox Lake Sanitary Sewer system. Sead was on site inspecting installation as well as inspecting the mandrel test, the manhole vacuum test, and low-pressure air test on the sanitary mains. Sead completed the construction inspection in 2025.

Village of Fox Lake – Utility Review
As the Village Engineer for Fox Lake TAI was tasked with reviewing utilities on proposed developments within the Village. Sead marks up and comments utility plan sheets to meet local and state code/standards. His markups and

comments would be reviewed by a project manager and sent out to the developer. Sead continues to review utility plans for the Village of Fox Lake.

Village of Fox Lake – 2024 Sewer Cleaning and Lining
TAI was assigned to facilitate design, bidding, and construction inspection of sanitary sewer cleaning and lining. Sead coordinated with the Village, Contractor, and other construction projects happening in the area to get the sewer cleaning and lining done with little to no disturbance. He reviewed the pay request and sanitary sewer footage for accuracy of work and quantities. Sead completed design in 2024 and construction inspection in 2025.

Village of Fox Lake – Hollisters Hollywood Watermain
TAI was assigned to get Phase I and Phase II completed and funding secured by the IEPA. Sead worked on the design for the project to ensure the proposed design met local, state, and federal standards. He also attended public meetings to discuss the project scope with residents. Project was tabled due to project funding for Phase III. Sead completed design in 2025.

Fox Metro Water Reclamation District – 111th Street Pump Station Interceptor Extension
TAI is engaged in design and the construction of approximately 3,300 LF of Interceptor sewer. Sead was tasked with the design of the interceptor sewer from the pump station to the end of the project scope, which included the crossing of Route 30 and two creek crossings. As well as the permitting of the project through IDOT, IHPA, IEPA, the Joint permit through ACOE and IDNR, and Will County. Design and permitting for the project is ongoing.

Village of Fox Lake – 2024 Roadway Program
TAI designed the rehabilitation of 1.2 miles of residential street within the Village of Fox Lake. Design included existing pavement pulverization and new HMA surface course. Stormwater was analyzed to maintain conveyance and outfall patterns. Wetlands and floodplain were prevalent to the site which included mitigation analysis and permitting. Construction included Full Depth Reclamation (FDR) with cement, base stabilization, milling, and resurfacing. Sead completed construction inspection in 2025.

Village of Fox Lake – Lakefront Park Redevelopment
TAI was engaged to value engineer the Lakefront Park design (by others) to lower construction costs from 15 million dollars to 12 million dollars. Performed design engineering and construction management services to realize 3 million dollars in cost savings and proceed with commencement of construction. Design scope included: roadways, lighting, landscaping, material substitutions, swimming area and beach design, and dry utility coordination. Construction management included: cost analysis, material viability investigation, and scheduling. The hydrology and hydraulics were analyzed for the 100-year floodplain onsite along with lake water level interaction. Compensatory storage for the floodplain elevation was designed and provided in the new beach section that involved County, Army Corps, and Health Department permitting. Sead was engaged with design of the park as well as value engineering for the park components. Phase II was completed in 2024 and Phase III was completed in 2025.

Glenbard Wastewater Authority – Parking lot Improvements
TAI was engaged in designing and construction oversight of the Glenbard Wastewater Authority (GWA) parking lot. This parking lot was constructed from asphalt paving and is undersized for the number of staff and visitors to the GWA administrative building. TAI included additional parking in front of the building, while minimizing the impacts of stormwater runoff volume and quality to the East Branch DuPage River, which is immediately downstream of the project site. The proposed parking lot design incorporated Post Construction Best Management Practices (PCBMPs) in addition to increasing the parking stall count. The project scope included verifying the pavement type for the new parking lot whether it be pervious pavers or asphalt, stormwater management as required by Village code, and coordinating with the Village of Glen Ellyn and their engineer to incorporate the design plans and specs into their roadway program. Sead completed the construction inspection in 2024.

Village of Addison – North Wastewater Treatment Plant (NWWTP) Expansion
TAI was engaged in design and expansion of the NWWTP. Sead worked on designing drainage structures, pipes, Post Construction Best Management Practices (PCBMPs), compensatory storage, and detention in accordance to DuPage County stormwater ordinances. Modeling of the site was done in Civil 3d extensions, which use SCS Unit Hydrograph, Federal Highway Administration's HDS-5, and Manning's Equation. The site intricacies included two base floodplain elevations from separate waterways, existing low building elevations, use of existing excess flow clarifier for proposed detention, and confined site due to structures/underground piping. Sead completed the design in 2026.

Village of Fox Lake – Hillside Court
TAI was engaged to design and oversee the deconstruction of a retaining wall, the construction of a timber lagging soldier pile wall, over 100 LF of storm sewer, a segmental block retaining wall, gabion baskets, and a riprap ditch.

Project complexities included a confined right-of-way, the need to deconstruct a significant portion of the roadway to accommodate the soldier pile wall, and slopes exceeding 50% at locations where stormwater structures were installed. With the project complexities coordination with residents and emergency services were critical to ensure access to homes during construction. Sead completed the construction inspection in 2026.

Village of Addison – Sewer Separation & Detention Basin
TAI was tasked with designing and overseeing the construction of separating over 26,000 linear feet of combined sewer ranging from 8-inch to 54-inch in diameter. The design included modeling of the stormwater system to design the location and size of a detention basin. Sead performed the QA/QC of hydrological and hydraulic modeling with the use of PCSWMM, which uses the EPA SWMM5 computational engine. He also contributed to the design of the storm sewer, detention basin design, and the rehabilitation of pavement. He oversaw a portion of the construction and communicated with the Village and Contractor to work through unforeseen circumstances (e.g. lead services, failing sanitary structures, watermain break). Sead completed the design and construction inspection for project completion in 2026.

Village of Roselle – Devlin Wastewater Treatment Plant (WWTP) Expansion & Nutrient Removal
TAI was engaged in design and expansion of the Devlin WWTP. Sead worked on designing drainage structures, pipes, Post Construction Best Management Practices (PCBMPs), compensatory storage, and detention in accordance to DuPage County stormwater ordinances. The of the major intricacies was that the WWTP was downstream of the surrounding residential tributary area. The stormwater design for the site needed to not disturb the existing stormwater flow path while restricting the proposed site runoff to existing conditions. Furthermore, the design included using an existing Chlorine Contact Tank as a proposed underground storage tank. Design of the project is ongoing.

Lake Barrington Shores Community – Stormwater Management Plan
TAI was tasked with updating mapping, creating a GIS of the storm sewer system, writing of a BMP Report, and producing a CIP for the Lake Barrington Shores Community storm sewer system. TAI surveyed the whole storm sewer system, noting any failures of structures along the way, and with this information created an estimate for repairing and maintaining of the system. The CIP included costs for televising, lining, and replacing pipe as well as costs for stream bank stabilization, erosion control methods, and reversing stream siltation. The CIP was completed in 2025.

Fort Sheridan Community – Analyzing Stormwater Components
The residents of Fort Sheridan reached out to TAI to get an expert opinion on the development of the Midwest Young Artists Conservatory (MYAC) Concert Hall. TAI analyzed the design and location of the proposed concert hall for the

community members as well as looking into any areas of concern. TAI attended and spoke at a Zoning Board meeting as a representative of the community members and their concerns. The project was completed in 2025.

Midwest Groundcovers – Turning Lanes
TAI was tasked with design and permitting of turning lanes of on Route 64 into the Midwest Groundcovers. Sead was tasked with Hydrology and Hydraulic permitting with IDOT, using Win-TR20 and HY-8. One of the intricacies of design was an existing detention pond near the IDOT right of way that was not permitted through IDOT when it was first built. The existing conditions had the IDOT right of way discharging into the pond, but the invert of the discharge pipe was lower than the normal water level of the pond. IDOT requires no standing water in pipes and manholes, so proposed design changed the flow path to stay in IDOT right of way. Phase II is ongoing.

Village of Fox Lake – Hillside Court
TAI was engaged to design and oversee the deconstruction of a retaining wall, the construction of a timber lagging soldier pile wall, over 100 LF of storm sewer, a segmental block retaining wall, gabion baskets, and a riprap ditch. Project complexities included a confined right-of-way, the need to deconstruct a significant portion of the roadway to accommodate the soldier pile wall, and slopes exceeding 50% at locations where stormwater structures were installed. With the project complexities coordination with residents and emergency services were critical to ensure access to homes during construction. Sead completed the construction inspection in 2026.

Village of Fox Lake – Nippersink Boulevard Relocation
TAI was engaged to design and oversee the construction of a new roadway within the Village of Fox Lake. The roadway design consisted of 530 LF of new roadway connecting Forest Avenue to the old Nippersink Road terminus. The existing Nippersink Road was reconfigured to terminate at the new Lakefront Park development and the existing alignment connecting to Oak Street was removed. Project design intricacies included grading down a 14% hillside slope, adding new watermain, stormwater capture, conveyance, and infiltration, and a retaining wall mirroring the existing Village wall near the Metra station. Wetlands and floodplain were prevalent to the site which included mitigation analysis and permitting. Performing construction observation duties involving inspection services for 535 LF of watermain, 550 LF of storm sewer, retaining wall installation, subbase integrity, base construction, and pavement installation. The project's successful low bid was $1.4 million, and the project was completed on schedule, and under budget. Sead completed the construction inspection in 2025.

▼ CURRENT PROJECTS

Job #	Project Name	Role	Deadline
ADD016	Addison Force Main Design	Sr. Project Manager	October, 2027
VOB012	Bartlett 2026 Various Streets	Sr. Project Manager	July, 2026

Dave Bronars, P.E., S.E.



Chief Structural Engineer

Mr. Bronars has over 43 years of progressive structural design and construction engineering/ inspection experience. During his career, Dave has worked on a wide variety of projects in terms of scale, complexity, and unique challenges across the country. He is well versed in ASCE 7 and the International Building Code. He has had extensive experience with ACI 318, ACI 350 AISC Manual of Steel Construction, TMS 402/602, AWC NDS, Aluminum Design Manual, and Cold Formed Steel Design. He is familiar with AASHTO and the National Bridge Inspection Standards. He is registered as a Program Manager for Bridge Inspection with the state of Illinois.

EDUCATION
BSCE Structures and Soils
University of Illinois - Urbana-Champaign

Business Administration Certificate
University of Illinois - Chicago

EXPERIENCE
43 Years

REGISTRATIONS
Professional Engineer, P.E.: AK, CA, FL, IL, IN, MA, MO, MN, NC, TX, WI

Illinois Licensed Structural Engineer, S.E., No. 081-004796

CERTIFICATIONS

PROFESSIONAL ORGANIZATIONS
Structural Engineers Association of Illinois (SEAOI)

American Concrete Institute (ACI)

American Institute of Steel Construction (AISC)

National Council of Structural Engineers Association (NCSEA)

ACCOMPLISHMENTS

PRESENTATIONS



Relevant Experience

City of Batavia Wastewater Treatment Plant 2023 Phase II
Structural Engineer responsible for the design of a new Headworks facility consisting of concrete walls on the first floor with brick veneer. The second floor has CMU walls with brick veneer. The second floor contains the influent channels, bar screens, and other equipment supported on a cast in place concrete slab. The roof is a precast prestressed concrete planks that support two manual hoists. A similarly designed Primary Clarifier Control Building with an attached Process/Excess Flow Diversion Structure and three wet wells was also designed for the site. Four new Primary Clarifiers, each having a 61 ft. diameter with odor control covers over the lauders, modifications to the existing Non-Potable Water room and a new UV structure with timber walls and pre-engineered timber trusses were the highlights of the expansion. Due to the topography of the site, several retaining walls, some up to 15 feet in retained height, were designed.

City of St. Charles, West Side Water Reclamation Facility 2020 Phase III Expansion
The City of St. Charles expanded their facility by adding an aeration basin to the existing basins, a new pre-engineered Vactor receiving building, a new Tertiary building consisting of CMU block and brick veneer with precast concrete planks and cold formed steel trusses. In addition, a new similarly constructed Sludge Handling Building with a wet well and digested sludge storage tank. Adjacent to the Sludge Handling building is a new Sludge Handling Storage barn with pre-engineered steel framing with concrete retaining walls on three sides.

DuPage County Public Works – Nordic WWTP Rehabilitation
Structures design engineer for the modification of the existing aeration basins to increase capacity by removing the existing steel tank walls and replacing them with new taller concrete walls. The existing mat foundation was reused to support the new Aeration Basin walls and Operations Building. A second floor was added to the Headworks Facility and two Tertiary Clarifiers were constructed. All exposed concrete walls were cast using formliners to give a stone block appearance from the adjacent park and ballfields.

City of Harvard – Wastewater Treatment Facility Improvements – Phase 1A
Structures design engineer for modifications to an existing wastewater treatment facility included repurposing an old on-site car dealership into administration facilities and a laboratory. Other structures that were rehabilitated include the raw sewage pumping station, the raw sewage screening systems, the grit removal systems, the primary effluent pump station, and the sludge pump station. New concrete structures that were constructed include an oxidation ditch, an MLSS diversion structure, and two 90 ft. diameter tertiary clarifiers with an adjoining RAS/WAS pump station. A new Sludge handling building was constructed using CMU blocks with a metal insulated exterior skin, precast prestressed concrete planks for the roof with a pre-engineered metal truss. Adjacent to the Sludge handling building is a new pre-engineered open metal building for sludge storage.

Glendale Heights Wastewater Treatment Facility Improvements
Structures design engineer for the modification of an existing steel tank digester which included replacing the existing walkway steel and grating, installing new steel basin walls, and installing an aluminum dome roof over the 106 ft diameter tank. New aluminum stairs were constructed to allow access to the inside of the tank. Modifications to the Tertiary filter building included installation of new blower intakes and louvers, new blower pads, and new aluminum stairs. In the sludge processing building, numerous wall penetrations through a CMU wall were patched, a new double door was installed, and a discharge framing system was installed to load the dumpsters.

Fox River Water Reclamation District Facility Rehabilitation
The Fox River Water Reclamation District North Facility constructed an addition to their existing Raw Sewage Pump Station to accommodate a new bar screen. The concrete structure is 13 ft wide and 26 ft long and is doweled into the existing concrete structure. A prefabricated fiberglass building was placed over the top of the screen to protect it from the elements. At the existing Grit Building, a new screen was installed in an existing channel, and a prefabricated fiberglass building was placed over the top of it. A conveyor drive system was installed to transport the grit into the building where it can empty into a dumpster. A new overhead door was installed to allow easier removal of the dumpster from the building.

Village of Fox Lake – Hillside Court – Phase III Project Manager
TAI was engaged to design and oversee the deconstruction of a failing steel sheet pile retaining wall, the construction of a timber lagging soldier pile wall, over 100 LF of storm sewer, a storm inlet, a segmental block retaining wall, gabion baskets, a riprap ditch, and an elevated boardwalk rehabilitation for pedestrian access to their home. Project complexities included a confined right-of-way, the need to deconstruct a significant portion of the roadway to accommodate the soldier pile wall, and slopes exceeding 50% at locations where stormwater structures were installed. With the project complexities coordination with residents and emergency services were critical to ensure access to homes during construction. In 2024 and 2025, Mr. Bronars designed the timber lagging wall, the segmental block retaining wall, and the elevated boardwalk as the project's structural engineer.

Batavia Park District - Clark Island Recreational Area Improvements
TAI provided professional engineering services including design, permitting, bidding and construction observation for the Clark Island Recreational Area Improvements, including removal an existing pedestrian bridge over the Fox River in a series of three bridges in the Clark Island area with two proposed pedestrian bridges designed and constructed as part of the project with approximate spans of 105' and 90' to better facilitate pedestrian and bicycle use across the island. Due to the project location within floodway, floodplain, and adjacent wetlands, TAI led coordination with jurisdictional authorities for the permitting of the project including the City of Batavia, IDNR, IEPA, and ACOE. Mr. Bronars, as the structural engineer for the project, designed the pedestrian bridges.

Mark Dupree, GISP



EDUCATION
Asbury College
Trinity College

EXPERIENCE
35+ Years

REGISTRATIONS
Certified Geographic Information Systems Professional (GISP)
Cadastral Mapping Specialist – IAAO
Master Instructor - IAAO

CERTIFICATIONS
IDOT Documentation of Contract Quantities

PROFESSIONAL ORGANIZATIONS
American Public Works Association
Illinois GIS Association
Wisconsin Land Information Association
Urban and Regional Information Systems Association



GIS MANAGER

With over 35 years of mapping experience, Mark Dupree is a leader in the Geographic Information System (GIS) industry. He is the Manager of GIS Services at Trotter and Associates, Inc. He has served on multiple local, state, and federal committees, helping to set GIS standards across all levels of government and industry.

He is closely involved in the design, development, and maintenance of GIS projects of all sizes. Mark works closely with multiple cities, villages, and organizations to provide all their GIS needs. He has also created and taught multiple GIS and mapping workshops and seminars throughout the United States.

RELEVANT EXPERIENCE

Northern Moraine Wastewater Reclamation District – Digital Capture
Created an online GIS Sanitary Sewer Data App. He trained the Northern Moraine Wastewater Reclamation District on how to capture sanitary sewer structures using Trible GPS units, GIS Collections Apps, and GIS online maps. Created an NMWRD utility paper map and web maps at the conclusion of the project.

City of North Chicago – PW Water Systems Lead Service Inventory Tracking
Created an online GIS Lead Service Inventory Tracking App and trained City Public Works staff to capture Systems Lead Service Inventory throughout the whole City. This three-year project included developing the GIS Lead Service Inventory Tracking app and Web Dashboard to log tracked items and the percentage of the city completed. It also tracked what type of service was at each location. Created full utility paper maps and web maps at the conclusion of each year for both the City and IEPA. Also created annual inventory-tracking reports for both the City and the IEPA.

Village of Barrington Hills – GIS Stormwater Data Collection and Mapping Services
Created an online GIS Stormwater Data Collection App and will team up with Village Staff to collect stormwater outfall inventory and stormwater catch basin inventory in the spring and summer of 2026. Will create individual outfall and catch basin reports compiled from the GIS collection application. Will create full stormwater utility paper and maps, including web maps, at the conclusion of the project. He also provides documentation for their MS4 Reports.

City of North Chicago – GIS Stormwater Data Collection and Mapping Services
Created a GIS Stormwater Data Collection App and will team up with City Staff to collect stormwater outfall inventory and stormwater catch basin inventory in the spring and summer of 2026. Will create individual outfall and catch basin reports compiled from the GIS collection application. Will create full stormwater utility paper and maps, including web maps, at the conclusion of the project.

Megan Czach, P.E.



Senior Project Manager

Ms. Czach is an electrical engineer with over 26 years of experience, with a primary focus on power distribution for wastewater treatment facilities, highway improvement programs and transportation facilities. She has experience with all aspects of a project including planning, designing, estimating, and the preparation of specifications and contract drawings for electrical work and Supervisory Control and Data Acquisition (SCADA), and construction services. She works closely with Process Engineers for the power and control needs of proposed/replaced equipment throughout the treatment process. She has experience in evaluating existing electrical distribution systems and working to verify adequate power capacity is available for upgrading existing systems to newer technologies. Other experiences include QA/QC of contract plans, electrical facility master planning, and proper electrical design for room classifications.

EDUCATION
BS Electrical Engineering
Illinois Institute of Technology

EXPERIENCE
26 Years

REGISTRATIONS
Professional Engineer, P.E., IL (062.066052)
Professional Engineer, P.E., WI (101383-6)
Professional Engineer, P.E., MI (6201310920)
Professional Engineer, P.E., MN (63337)
Professional Engineer, P.E., IA (P30223)
Professional Electrical Engineer, P.E., AK (222988)
Professional Engineer, P.E., IN (PE12400849)
Professional Engineer, P.E., MO (2024030860)
Professional Engineer, P.E., OH (PE.86652)
Professional Engineer, P.E., PA (PE095223)
Professional Electrical Engineer, P.E., WA (24028612)
Professional Electrical Engineer, P.E., CA (25132)
Professional Engineer, P.E., KY (40266)
Professional Engineer, P.E., MD (63534)
Professional Electrical Engineer, P.E., RI (15624)
Professional Engineer, P.E., NC (057724)
Professional Engineer, P.E., VA (0402069000)
Professional Engineer, P.E., WV (26060)
Professional Engineer, P.E., GA (PE052767)

PROFESSIONAL ORGANIZATIONS
Institute of Electrical and Electronic Engineers (IEEE)
- Senior Member
- Chicago Section Power and Energy Society Past Chair
- Chicago Section Education Past Chair

ACCOMPLISHMENTS
IEEE Chicago Section Certificate of Appreciation 2019
IEEE Chicago Section Certificate of Appreciation 2020
Cowrote "Considerations When Going Electric" for SAME's The Military Engineer (THE)

Relevant Experience as Electrical Engineer

Fox River Water Reclamation District (FMWRD) Electrical Condition Assessment
Ms. Czach conducted a visual assessment of the major electrical equipment and all accessible motors over 10hp. Major electrical equipment inside the buildings included switchboards, switchgears, motor control centers (MCCs), standalone variable frequency drives (VFDs), 480V panelboards, lighting panelboards and distribution transformers, exterior medium voltage transformers, ATO and switchgear. This assessment included a review of the area classification of the buildings and structures based on the 2020 edition of the NFPA 820 Standard for Fire Protection in Wastewater Treatment and Collection Facilities. A report detailing the findings was produced along with recommendations for upgrades needed.

Woodridge Greene Valley WWTP and Knollwood WWTP Electrical Improvements
Ms. Czach's responsibilities included designing the replacement of medium and low voltage electrical distribution equipment at the WGV WWTP and low voltage distribution equipment at the Knollwood WWTP. At WGV, the design includes replacement of the main medium voltage switchgear, replacement of four low voltage switchgears with new medium voltage transformers, medium voltage S&C Vista switchgears and new low voltage switchgears, removal of the existing generator, installation of two new 1500kW and two new 1000 kW standby diesel generators, and new ductbank/cables to refeed the existing motor control centers. At Knollwood, the design includes replacing the existing main switchgear and switchgear S1 with a single, radial fed distribution switchgear, replacing the existing natural gas generator with a diesel generator and new ductbank/cables to refeed the existing motor control centers.

Fox Metro - 480 V Feeders to Building B and O&M Replacement
Responsibilities included designing new ductbank/cable system for the feeders for motor control centers in Buildings B and O&M from the low voltage switchgear in Building K to the low voltage switchgear in Building K2.

Fox Metro - Sugar Grove Pump Station MCC Replacement
Responsibilities included the design of a replacement 480v motor control center in the same place as the existing MCC while keeping the pump station operational. The design also included a new 480v-240/120v transformer and 240/120v lighting panel, new cabling throughout the pump station and construction sequencing to keep the pump station operational while switching from the existing MCC to the new MCC was being done.

Salt Creek Sanitary District - Electrical & Grit Removal Improvements.
Responsibilities included the electrical design for this project. The design included a new electrical room to house new 480v low voltage switchgear, two new 480v motor control centers to replace three existing motor control centers, new manual transfer switch, new 480v distribution panels, new 480v-240/120v transformers, and new 240/120v lighting panels. The project also included a new generator quick connect cabinet, new conduit/cable system to refeed all the equipment in Building C, demolition of existing motor control centers, new grit control panel, upgrading of the electrical systems in the bar screen room to meet the Class 1, Div 1 area classification and a construction sequencing that would keep the headworks operational at all times and minimize any downtime.

Village of Addison - North Treatment Plant Digester Complex Improvements
Responsibilities included the design of a new electrical system for the digester complex. The design included a new 480v motor control center, new 480v distribution panels, new 480v-240/120v transformers, 240/120v lighting panels, all new cable and conduit systems to repower existing equipment and to power new equipment, upgrading the electrical in areas that are classified and demolition of the existing MCC and associated cable/conduit.

Fox Metro - Building G Improvements
Responsibilities included designing the electrical components for this project. The design included a new electrical room to house new 480v low voltage switchgear, four new 480v motor control centers, four new manual transfer switches, new 480v distribution panels, new 480v-240/120v transformers, new 240/120v lighting panels and incorporation of existing electrical transformers and panels. The design also include four new stand-alone variable frequency drives, exterior generator quick connects, new medium voltage substation with two new medium voltage transformers and two new S&C Vista switchgears, upgrades to the 15 kV conduit/cable system to incorporate the new substation, all new cable/conduit to repower new and existing equipment, new lighting system and upgrades to the power system (all new ductbanks and cables) for the aeration tanks along with controls upgrades to the aeration tanks.

Fox Metro - South WWTP Facility Improvements
Responsibilities included being the Senior Electrical Engineer on this project which included designing some portions and supervising other electrical engineers designing other portions of the project. This project was an expansion of an existing plant. New buildings/structures included a headworks, primary and secondary clarifiers, aeration tanks, blower building with RAS and WAS pumping, GBT building attached to an existing structure, and a sludge pumping station. Two new medium voltage services were coordinated with ComEd and installed at the south facility. The headworks, sludge pumping station and the blower building each had their own medium voltage substations installed and each electrical room included a 480 low voltage switchgear, 480v motor control centers, manual transfer switches, generator quick connect cabinets, SCADA panels, transformers, lighting panels and distribution panels. The power, lighting, and control systems for each building/structure were new along with the medium voltage system and SCADA fiber optic cable system which was connected to the existing SCADA system of the north plant.

Jose C. Chavez, P.E.



EDUCATION
BS Mechanical Engineering
Northern Illinois University

EXPERIENCE
9 Years

REGISTRATIONS
Professional Engineer, P.E., IL – 062.074728

PROFESSIONAL ORGANIZATIONS
ASHRAE Chicago Chapter



PROJECT ENGINEER

Mr. Jose Chavez earned his mechanical engineering degree from Northern Illinois University in 2017. For the past several years he has participated in ASHRAE conferences and local seminars. He began his career at Walker Process Equipment, where he focused on the design and oversight of wastewater treatment equipment, including combination boilers and heat exchangers, digester covers, clarifiers, and thickening systems. Over the last 6.5 years with Trotter and Associates, Inc., Jose has served as a Resident Engineer, Design Engineer, Project Engineer, and currently as a Mechanical Engineer on projects of varying sizes.

Jose has completed planning, design and construction engineering services for several communities throughout northeastern Illinois. Jose is currently managing the Oakbrook Water Systems Modernization, City of Des Plaines City Hall Electrical Rehabilitation, Village of Addison North WWTP Expansion HVAC and Mechanical Design and Village of Roselle Phosphorous Removal HVAC and Mechanical Design and varying smaller scale projects.

RELEVANT EXPERIENCE AS PROJECT ENGINEER

City of St. Charles – Phosphorous Removal and Digester Improvements
In 2017 as part of Walker Process Equipment, Jose designed combination boiler heat exchangers to provide heating of digester sludge for the Anaerobic Digestion process. As part of this design, the combination of natural gas to supplement BIOGAS produced by the digestion process was incorporated as a blend to ensure the system would continue when gas production was low.

City of Batavia WWTF – Phase IIA Rehabilitation
The Phase IIA Rehabilitation included the design of four new primary clarifiers sized for process and excess flow, a new headworks building with screening and grit removal, and a new primary clarifier building to house primary sludge pumps and odor control.

In addition, WAS thickening in the existing Sludge Handling Building was abandoned and replaced with a new WAS thickening system in the garage area with accommodations for future relocation. In that same space included the design of a Rotary Drum Thickener which also included accommodations for future relocation. Mechanical HVAC, odor control and plumbing design and construction for all new and existing buildings to account for the varying building and area classifications.

Village of Addison – North WWTP Expansion
The North WWTP Expansion includes a new Screening Building, a new Excess Flow Clarifier and Diversion Structure, Primary Clarifier rehab, two additional aeration basins, and implementation of a BNR (A2O) process.

The project also includes Final Clarifier rehabilitation, an Advanced Treatment Building with tertiary disc filters and UV disinfection for process and excess flow, and installation of gravity thickening. Additionally, a new Garage, Laboratory, and Operations Building will be constructed to house laboratory functions and office space. Mechanical HVAC design including indoor air quality improvements, plumbing design and construction for all new and existing buildings to account for the varying building and area classifications.

Village of Roselle – Botterman STP Biological Nutrient Removal Upgrades
Jose has provided design services for multiple facility and process improvements at the Village of Roselle's Botterman Wastewater Treatment Plant, including building mechanical systems, process equipment, instrumentation and controls, and safety-related systems. His responsibilities included the retrofit design of the screening building ventilation system, incorporating gas detection and alarm functions integrated with the ventilation controls to improve operational safety and system responsiveness.

At the primary clarifiers, Jose designed ventilation systems for two dome-covered clarifiers, including associated alarm provisions, and developed the process design for two suction-header style clarifiers with related control components. For the chemical feed building, his work included design of the ventilation system with heating, low-temperature control, and alarm functions; the clean room pressurization and filtration system for the electrical room; and the ferric chloride chemical feed system. Jose also designed the building plumbing systems, including potable water and sanitary drainage, and incorporated emergency eyewash systems and hose reels to support safe operation, maintenance, and regulatory compliance.

Village of Roselle – Devlin WWTF Expansion and Nutrient Removal Upgrades
Jose served as a design engineer for comprehensive wastewater treatment facility improvements, with responsibility for process, mechanical, HVAC, ventilation, instrumentation and controls, utility, and site piping design. His work included development of the grit handling process within the grit building, including equipment layout, process integration, control sequencing, ventilation provisions, and gas detection and alarming systems to support safe operation, maintainability, and compliance with facility operational requirements. He also designed excess flow non-potable water improvements to resolve site conflicts, improve constructability, and maintain reliable service to process users. For the secondary treatment improvements, he designed the secondary clarifier process using suction header-style clarifiers, addressing sludge collection, hydraulic performance, process flexibility, and integration with existing treatment infrastructure. He also developed the clarifier ventilation design, including associated controls and alarm functions to support equipment protection and operator safety.

The design for the RAS/WAS structure improvements addressed return activated sludge and waste activated sludge flow control at low and variable flow conditions, improving hydraulic control and operational reliability while resolving limitations of the existing system. Additional responsibilities included design of process piping modifications, valve and equipment replacements, and improvements to aging infrastructure to enhance reliability, accessibility, and long-term maintainability. He designed HVAC improvements for the UV/blower building to manage the significant heat load generated by the blowers, including ventilation and heat removal strategies appropriate for continuous facility operation. He also designed the UV area ventilation and dehumidification systems to maintain a dry environment, reduce moisture-related equipment concerns, and support reliable operation of electrical and process equipment. His utility design responsibilities included site natural gas improvements and a water service extension to provide adequate capacity, support future operational demands, and improve overall facility utility reliability.