CITY OF WEST ALLIS
AGREEMENT FOR
PROFESSIONAL SERVICES

THIS AGREEMENT is entered into by and between the CITY OF WEST ALLIS, Wisconsin, a municipal corporation (the "City") and BAXTER & WOODMAN, INC. (the "Consultant").

WHEREAS, the City has solicited proposals from qualified persons to furnish professional engineering consultant services for the WATER UTILITY FACILITIES EVALUATION, (the "Project"); and,

WHEREAS, Consultant has submitted a proposal to provide such services; and,

WHEREAS, the City has been authorized to enter into this Agreement with Consultant for such services and has authorized the expenditure of funds to pay the liability that will accrue to the City under this Agreement.

NOW, THEREFORE, in consideration of these premises the parties hereby mutually agree as set forth in the following pages, exhibits and schedules which are annexed hereto and made a part hereof.

IN WITNESS WHEREOF, the City and the Consultant have executed this Agreement together with the attachments, which are made a part hereof.

BAXTER & WOODMAN, INC.

By: _____
Louis D. Haussmann, PE

Title: Executive Vice President/COO

Date: 9/13/17

CITY OF WEST ALLIS, WISCONSIN

By: _____
Michael Lewis

Title: Director of Public Works/City Engineer

Date: 10/3/2017

ATTACHMENTS:
GENERAL CONDITIONS OF AGREEMENT
SCOPE OF SERVICES
CONSULTANT'S HOURLY RATES
INSURANCE REQUIREMENTS
WORK ORDER

Approved as to form this 2 day of ~~September~~ Oct., 2017.

_____
City Attorney

CITY OF WEST ALLIS
DEPARTMENT OF ENGINEERING
GENERAL CONDITIONS OF AGREEMENT FOR
PROFESSIONAL SERVICES

CONSULTANT: Baxter & Woodman, Inc.

PROJECT: Water Utility Facilities Evaluation

1.01 BASIC SERVICES

A. Basic Services of CONSULTANT to be provided under this AGREEMENT are listed in the Scope of Services, attached hereto and made a part of this Agreement by reference.

B. Payment for Basic Services shall be made in accordance with Section 3 of this Agreement.

2.01 SERVICES REQUIRING AUTHORIZATION IN ADVANCE

A. Those services listed in the Scope of Services but not identified in Section 1 of this AGREEMENT may be requested by the DEPARTMENT to complete the work, are considered additional services. The DEPARTMENT may request CONSULTANT at a future date to perform any or all of these services by a written authorization to proceed with the Additional Service(s). The written authorization to proceed shall become an Amendment to the Agreement.

B. Payment for the Additional Service(s) shall be in accordance with Section 3 of this AGREEMENT.

3.01 BASIC SERVICES

A. DEPARTMENT shall pay CONSULTANT for Basic Services rendered under Section 1 on the basis of CONSULTANT'S Hourly Rate, plus Reimbursable Expenses and Services of Professional Associates and other Subconsultants as defined in this Section 3.

B. CONSULTANT estimates that the total cost required to perform Basic Services as enumerated in Section 1 will not exceed Thirty-Seven Thousand Five Hundred Dollars and No Cents ($37,500.00).

Given the assumptions which must be made, the DEPARTMENT recognizes that the CONSULTANT cannot guarantee the complete accuracy of its estimate of total cost, and, therefore waives any claim against CONSULTANT in this regard, except to the extent that any cost overrun can be attributable to fraudulent conduct, bad faith or inexcusable ignorance or incompetence.

3.02 ADDITIONAL SERVICES

DEPARTMENT shall pay CONSULTANT for Additional Services rendered under Section 2 as follows:

1. For Additional Services of CONSULTANT'S principals and employees engaged directly on the Project and rendered pursuant to Section 2, on the basis of CONSULTANT'S Hourly Rate.

2. For services and Reimbursable Expenses of independent Professional Associates and Subconsultants employed by CONSULTANT to render Additional services pursuant to Section 2, the amount billed to CONSULTANT therefore.

3.03 REIMBURSABLE EXPENSES

A. As used in this Agreement Reimbursable Expenses mean the actual expense incurred by CONSULTANT or its independent Professional Associates or Subconsultants, directly or indirectly in connection with the Project, such as expenses for: toll telephone calls and express mailings, reproduction of reports, drawings, specifications, bidding documents, laboratory tests and similar Project-related items in addition to those required under Section 1; and, if authorized in advance by the DEPARTMENT, overtime work requiring higher than regular rates.

B. The Reimbursable Expenses for Basic Services are as set forth in the CONSULTANT'S Hourly Rates attached hereto and made a part of this Agreement.

3.04 HOURLY RATES.

As used in this Agreement hourly rates used as a basis for payment mean salaries and wages (basic and incentive) paid to all CONSULTANT'S personnel engaged directly on the Project, including but not limited to other technical and business personnel as set forth in the Consultant's Hourly Rates.

3.05 TIME OF PAYMENT

A. CONSULTANT shall submit monthly statements on or before the twentieth of the month for Basic and Additional Services rendered and for Reimbursable Expenses incurred. The DEPARTMENT shall make prompt payment on or before the twentieth of the month following the date of the CONSULTANT monthly statement.

4.01 COMMENCEMENT OF WORK

A. CONSULTANT shall commence the work to be performed under this Agreement upon receipt of a written Work Order to proceed from the DEPARTMENT. Each Work Order shall define by task(s) the scope of services to be performed. Verbal authorizations shall be followed up with written Work Orders.

B. Additional services shall be commenced at within the time agreed to between the CONSULTANT and the DEPARTMENT at the time such services are authorized.

C. The DEPARTMENT shall not be liable to CONSULTANT and/or any of its independent Professional Associates and/or Subconsultants for claims or damages or monetary claims of any nature caused by or arising out of delays from any cause whatsoever, including but not limited to any time which may be specified for the notice to proceed under this Agreement. The sole remedy against the DEPARTMENT for delays shall be the allowance to claimant of additional time for completion of work, the amount thereof to be reasonable as determined by the DEPARTMENT.

4.02 COMPLETION OF WORK

A. CONSULTANT shall complete the work to be performed under this Agreement within the time specified in the Scope of Services, or if none is specified, then within a reasonable time for the type of work involved.

B. Additional services shall be completed within the time agreed to between the CONSULTANT and the DEPARTMENT at the time such services are authorized.

5.01 APPLICABLE LAW

This AGREEMENT shall be governed by the laws of the State of Wisconsin and venue for any action concerning this Agreement shall be in Milwaukee County, Wisconsin. The CONSULTANT shall at all times comply with all federal, state and local laws, ordinances and regulations in effect during the period of this AGREEMENT.

6.01 APPROVALS OR INSPECTIONS

None of the approvals or inspections performed by the DEPARTMENT shall be construed or implied to relieve the CONSULTANT from any duty or responsibility it has for its professional performance, unless the DEPARTMENT formally assumes such responsibility through a letter from the DEPARTMENT expressly stating that the responsibility has been assumed.

7.01 DISPUTE RESOLUTION

In the event a dispute arises under this agreement, which is not resolvable through informal means, the parties agree to submit the dispute to the following resolution mechanism prior to pursuing other available legal remedies. Upon receipt of a written request by either party to utilize this provision each party shall have five working days to notify the other as to the name and address of the person designated to present the dispute for that party. Upon designation of the dispute resolution representatives, those persons shall have ten working days to appoint a mutually acceptable third person to hear the dispute, and to agree on a time and location to hear the matter in dispute. The representatives shall jointly determine the procedure to be used for gathering information and hearing the dispute. Binding mediation or arbitration shall not be chosen as a dispute resolution method.

8.01 ASSIGNMENT

Neither this AGREEMENT nor any right or duty, in whole or in part, of the CONSULTANT under this AGREEMENT may be assigned, delegated or subcontracted without the written consent of the DEPARTMENT.

Nothing under this AGREEMENT shall be construed to give any rights or benefits in this AGREEMENT to anyone other than the DEPARTMENT and the CONSULTANT, and all duties and responsibilities undertaken pursuant to this AGREEMENT will be for the sole and exclusive benefit of the DEPARTMENT and the CONSULTANT and not for the benefit of any of any other party.

9.01 CANCELLATION; TERMINATION

A. The DEPARTMENT reserves the right to cancel this AGREEMENT in whole or in part, without penalty, due to non-appropriation of funds or for failure of the CONSULTANT to comply with terms, conditions, or specifications of this AGREEMENT.

B. The DEPARTMENT may terminate this AGREEMENT for any reason at any time upon not less than 10 days' written notice to the CONSULTANT.

C. In the event of termination the DEPARTMENT shall pay the CONSULTANT for that portion of the work satisfactorily performed prior to the date of termination.

D. If this AGREEMENT is cancelled or terminated by the DEPARTMENT for reasons other than the failure of the CONSULTANT to comply with terms, conditions or specifications of this AGREEMENT, the CONSULTANT shall also be entitled to reasonable cancellation or termination costs relating to costs incurred by the CONSULTANT for commitments, which had become firm prior to the cancellation or termination.

E. Upon cancellation or termination under PARAGRAPH A. or B., above, the CONSULTANT shall promptly discontinue all affected work (unless the notice of termination directs otherwise), and deliver or otherwise make available to the DEPARTMENT all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the CONSULTANT in performing this AGREEMENT, whether completed or in progress.

F. If any undisputed invoice shall not be paid within the payment terms of this AGREEMENT, CONSULTANT shall have the right, after giving seven (7) days written notice, to suspend all Services on the project until all accounts have been paid. If any overdue invoice shall not be paid within forty-five (45) calendar days after the date of the invoice, CONSULTANT shall have the right to terminate this AGREEMENT.

10.01 DISCLOSURE

If a city official (as defined under section 3.02(l) of the Revised Municipal Code of the City of West Allis), a member of official's immediate family, or any organization in which a city official or a member of the official's immediate family owns or controls a ten percent (10%) interest, is a party to this AGREEMENT, and if this AGREEMENT involves payment of more than three thousand dollars ($3,000) within a twelve (12) month period, this AGREEMENT is voidable by the City unless appropriate disclosure is made according to section 3.5 of the Revised Municipal Code, before signing the AGREEMENT. Disclosures shall be made to the Ethics Board of the City of West Allis, 7525 West Greenfield Avenue, West Allis, Wisconsin 53214 (Telephone 414-302-8200).

11.01 ENTIRE AGREEMENT; AMENDMENTS

This AGREEMENT, together with the specifications in the proposal and referenced parts and attachments, shall constitute the entire agreement between the parties and previous communications or agreements pertaining to the subject matter of this AGREEMENT are hereby superseded. Any contractual revisions including cost adjustments and time extensions may be made only by a written amendment to this AGREEMENT, signed by both parties prior to the ending date of this AGREEMENT.

12.01 FORCE MAJEURE

No party shall be responsible to the other party for any resulting losses and it shall not be a default of this Agreement if the fulfillment of any of the terms of this Agreement is delayed or prevented by revolutions or other civil disorders, wars, acts of enemies, strikes, fires, floods, acts of God, unusual adverse weather conditions, or by any other cause not within the control of the party whose performance was interfered with and which by the exercise of reasonable diligence such party is unable to prevent, whether of the class of enumerate causes or not, and the time for performance shall be extended by the period of delay occasioned by any such cause. Upon the occurrence of a force majeure, written notice to the other party shall be given as herein provided. If the period of non-performance exceeds thirty (30) days from the receipt of the notice, the party whose ability to perform has not been so affected may, by written notice, terminate this Agreement.

13.01 INDEMNIFICATION; LIABILITY

A. To the fullest extent allowable by law, CONSULTANT hereby indemnifies and hold harmless the City of West Allis, its elected and appointed officials, officers, employees or authorized representatives or volunteers and each of them from and against any and all suits, actions, legal or administrative proceedings, claims demands, damages, liabilities, interest, reasonable attorneys' fees, costs, and expenses of whatsoever kind or nature whether arising before, during, or after completion of the work hereunder to the extent caused by the CONSULTANT'S negligent act, omission, fault, or negligence, whether active or passive, of CONSULTANT or of anyone acting under its direction or control or on its behalf in connection with or incident to the performance of this Agreement. CONSULTANT'S aforesaid indemnity and hold harmless agreement shall not be applicable to any liability caused by the sole fault, sole negligence, or willful misconduct of the City of West Allis, or

its elected and appointed officials, officers, employees or authorized representatives or volunteers. This indemnity provision shall survive the termination or expiration of this Agreement.

In any and all claims against the City of West Allis, its elected and appointed officials, officers, employees or authorized representatives or volunteers by an employee of CONSULTANT, any Subconsultant, or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT or any Subconsultant under worker's compensation, disability benefit, or other employee benefit laws.

No provision of this indemnification clause shall give rise to any duties not otherwise provided for by this Agreement or by operation of law. No provision of this indemnity clause shall be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to the City of West Allis, its elected and appointed officials, officers, employees or authorized representatives or volunteers under this or any other contract. This clause is to be read in conjunction with all other indemnity provisions contained in this Agreement. Any conflict or ambiguity arising between any indemnity provisions in this Agreement shall be construed in favor of indemnified parties except when such interpretation would violate the laws of the state in which the job site is located.

CONSULTANT shall reimburse the City of West Allis, its elected and appointed officials, officers, employees or authorized representatives or volunteers for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. CONSULTANT'S obligation to indemnify shall not be restricted to insurance proceeds, if any received by the City of West Allis, its elected and appointed officials, officers, employees or authorized representatives or volunteers.

B. DEPARTMENT agrees to indemnify, defend and hold harmless CONSULTANT and its Subconsultants, agents, directors, and employees from and against all claims, suits, damages, and losses, including, but not limited to, those claims, suits, damages, or losses caused or arising out of, relating to, or based upon: 1) the acts, omissions, or other conduct of DEPARTMENT; and 2) the actual or threatened dispersal, discharge, escape, release, or saturation of smoke, vapors, soot, fumes acids, alkalis, toxic chemicals, liquids, gases, or any other materials, irritants, contaminants, or pollutants in or into the atmosphere or on, onto, upon, in or into the surface or subsurface of soil, water or water course, objects, or any tangible or intangible matter, whether abated or not; except to the extent that such damage or loss is caused by the negligent acts or willful misconduct of CONSULTANT or its agents, officers, directors, or employees.

C. Nothing contained within this AGREEMENT is intended to be a waiver or estoppel of the City or its insurer to rely upon the limitations, defenses, and immunities contained within Wisconsin Statutes Sections 893.80 and 345.05. To the extent that indemnification is available and enforceable, the City or its insurer shall not be liable in indemnity, contribution or otherwise for an amount greater than the limits of liability for municipal claims established by Wisconsin law.

14.01 INDEPENDENT CONSULTANT

The DEPARTMENT agrees that the CONSULTANT shall have sole control of the method, hours worked, and time and manner of any performance under this AGREEMENT other than as specifically provided herein. The DEPARTMENT reserves the right only to inspect the job site or premises for the purpose of insuring that the performance is progressing or has been completed in compliance with the AGREEMENT. The DEPARTMENT takes no responsibility for supervision or direction of the performance of the AGREEMENT to be performed by the CONSULTANT or the CONSULTANT'S employees or agents. The DEPARTMENT further agrees that it will exercise no control over the selection and dismissal of the CONSULTANT'S employees or agents.

15.01 REPORT AND DOCUMENTATION REQUIREMENTS

A. The CONSULTANT'S invoices will be reduced by the sums set forth below for each week that the CONSULTANT fails to submit a report or document required under this AGREEMENT'S time schedule unless the DEPARTMENT determines that such delay is attributable to a force majeure as defined in SECTION 8., above. These reductions shall accrue in the amount of 0% of the Work Order for the first week and 0% of the Work Order for each week thereafter, for each report or document, which is overdue.

B. Assessment of reductions under this SECTION does not preclude the DEPARTMENT from pursuing any other remedies or sanctions because of the CONSULTANT'S failure to comply with any of the terms of this AGREEMENT, including a suit to enforce the terms of this AGREEMENT.

C. With respect to any individual failure to submit a report or document required under this AGREEMENT'S time schedule, the DEPARTMENT may at its sole discretion, in whole or in part, waive its right to penalties otherwise due under this SECTION.

16.01 NO WAIVER OF CONDITIONS

The failure of either party to insist on strict performance of this AGREEMENT does not constitute a waiver of any of the provisions of this AGREEMENT or a waiver of any default of the other party.

17.01 OWNERSHIP OF DOCUMENTS

A. Upon completion of the services provided for in this AGREEMENT, or upon payment for services as provided for in SECTION 5., all reports, specifications, charts, sketches, drawings and other documents, whether finished or not, shall become the property of the DEPARTMENT.

B. CONSULTANT shall retain one copy of all documents for its file. Any documents generated by CONSULTANT used by the DEPARTMENT beyond the intended purpose shall be at the sole risk of the DEPARTMENT, unless otherwise agreed upon by CONSULTANT in writing. To the fullest extent permitted by law, DEPARTMENT shall indemnify, defend and hold harmless

CONSULTANT, its Subconsultants, officers, directors, employees and agents, for any loss or damages arising out of the unauthorized use of such documents by the DEPARTMENT.

18.01 OWNERSHIP OF WASTES [Environmental Contract Only]

The DEPARTMENT acknowledges that the CONSULTANT is not, by virtue of this AGREEMENT, the owner or generator of any waste materials generated as a result of the services performed by the CONSULTANT under this AGREEMENT.

19.01. PERIOD OF AGREEMENT

This AGREEMENT shall commence upon its signing by both parties and shall follow the schedule developed herein, during which period all performance as described in this AGREEMENT shall be fully completed to the satisfaction of the DEPARTMENT.

20.01 RELEASE OF INFORMATION

The CONSULTANT may not issue press releases or provide information to any third party regarding the Project without the prior written approval of the DEPARTMENT, except as required by Federal or State regulations, or court order.

21.01 SAFETY

The CONSULTANT shall initiate, maintain and provide supervision of safety precautions and programs for CONSULTANT'S own employees, and shall require its Subconsultants to comply with state and local safety laws and regulations in connection with its services. However, the CONSULTANT is not responsible for the elimination or abatement of safety hazards created or otherwise resulting from work at the project site carried on by other persons or firms directly employed by the DEPARTMENT as separate consultants. The DEPARTMENT agrees to require any such separate consultants to comply with federal, state and local safety laws and regulations and to comply with all reasonable requests and directions of the CONSULTANT for the elimination or abatement of any safety hazards at the project site.

22.01 SITE ACCESS; DATA

A. Unless the Scope of Work provides otherwise, the DEPARTMENT shall obtain or provide reasonable access for the CONSULTANT to the project site when necessary and at any reasonable time requested.

B. The DEPARTMENT shall attempt to provide the CONSULTANT with all relevant data and information in its possession regarding the project site. However, in providing such data and information, the DEPARTMENT and the CONSULTANT assumes no responsibility for its accuracy, reliability or completeness.

23.01 STANDARD OF PERFORMANCE

The CONSULTANT'S services shall be performed with the usual thoroughness, skill and competence of the consulting profession, in accordance with the standard for professional services prevailing at the time those services are rendered.

24.01 SURVIVAL

These General Terms and Conditions shall survive the completion of the services under this AGREEMENT and the termination of this AGREEMENT for any cause.

25.01 SUCCESSORS AND ASSIGNS

The DEPARTMENT and the CONSULTANT each bind themselves, their partners, successors, assigns and legal representatives to the other party to this AGREEMENT and to the partners, successors, assigns and legal representatives of the other party with respect to all covenants of this AGREEMENT.

26.01 TITLES

The headings or titles of SECTIONS of this AGREEMENT are used for convenience and ease of reference and are not intended to limit the scope or intent of the SECTIONS.

27.01 ACCESS TO RECORDS

A. The CONSULTANT and Subconsultants to the CONSULTANT if any, agree to maintain for inspection by the DEPARTMENT all books, documents, papers, accounting records and other evidence pertaining to all costs incurred under this AGREEMENT and to make such materials available at their respective offices at all reasonable times during the life of the AGREEMENT and for three (3) years from the date of final payment under the AGREEMENT, and to furnish copies thereof if requested.

B. If more than a nominal number of copies are requested, the additional copies shall be furnished at the expense of the DEPARTMENT.

28.01 ERRORS AND OMISSIONS

The CONSULTANT shall be responsible for the accuracy of the work performed by the CONSULTANT under the AGREEMENT, and shall promptly make necessary revisions or corrections resulting from its negligent acts, errors or omissions without additional compensation.

29.01 CONFLICT OF INTEREST

A. The CONSULTANT warrants it has no public or private interest, and shall not knowingly acquire directly or indirectly any such interest, which would conflict in any manner with the performance of the work under the AGREEMENT.

B. The CONSULTANT shall not employ any person employed by the DEPARTMENT for any work included under the provisions of the AGREEMENT.

PROPOSAL PRICING TO

CITY OF WEST ALLIS

Consultant Services for Water Utility Facilities Evaluation




BAXTER & WOODMAN Consulting Engineers

Submitted by:
Baxter & Woodman, Inc.
Consulting Engineers
www.baxterwoodman.com

August 25, 2017

CITY OF WEST ALLIS

PROPOSAL

ENGINEERING CONSULTANT SERVICES FOR WATER UTILITY FACILITIES EVALUATION

Engineering Department
West Allis, WI

We hereby propose to furnish the following services, in accordance with City of West Allis specifications, at the following prices:

Position	Hourly Rate	Number of Hours	Extended Price
Project Principal	$180	3	$540
Project Manager	$170	45	$7,650
Water Project Engineer	$140	52	$7,280
Structural Engineer	$140	24	$3,360
Mechanical Engineer	$130	24	$3,120
I&C Engineer	$140	24	$3,360
Clerical/Admin	$80	8	$640
Subconsultant – Kaempfer & Assoc	$120	58	$6,960
Subconsultant - PowrTek	$110	29	$3,190

Additional Expenses (please itemize)

Meetings & Travel mileage & Meals	$1,320
Draft & Final Report printing, Meeting exhibits	$80

TOTAL PROJECT PRICE **$37,500**

Date: August 25, 2017

Payment Terms:

_____ % _____

Net 30 days

Do you accept credit card payments?

_____ yes __X__ no

COMPANY NAME Baxter & Woodman, Inc.

AUTHORIZED SIGNATURE Deborah Finn

Deborah Finn
Type or Print Name

TITLE Executive Vice President

ADDRESS 115 South 84th St., Suite 175

Milwaukee, WI 53214

TELEPHONE 414-257-3150 FAX _____

E-MAIL dfinn@baxterwoodman.com

PROPOSAL TO

CITY OF WEST ALLIS

Consultant Services for Water Utility Facilities Evaluation




ORIGINAL

BAXTER & WOODMAN Consulting Engineers

Submitted by:
Baxter & Woodman, Inc.
Consulting Engineers
www.baxterwoodman.com

August 25, 2017

BAXTER & WOODMAN
Consulting Engineers
115 South 84th St., Suite 175, Milwaukee, Wisconsin 53214 • baxterwoodman.com

August 25, 2017

Mr. Michael Lewis
Director of Public Works/City Engineer
City of West Allis
Engineering Department, Room 212
7525 W. Greenfield Ave.
West Allis, Wisconsin 53214

Subject: ***City of West Allis - Consultant Services for Water Utility Facilities Evaluation***

Dear Mr. Lewis:

The City of West Allis provides dependable, high-quality, and economical water service to almost 20,000 customers in the area. The City's water supply is provided by the City of Milwaukee Water Works utilizing two connection points on the City's east side. The West Allis Water Utility serves customers in the western portion of the City using two booster pumping facilities to provide adequate system pressure and flows in that service area.

The City is seeking a water system engineering partner to complete an evaluation of the Water Utility's two pumping stations. Water system infrastructure requires substantial investment, and careful planning can help prioritize capital improvements and allow focused allocation of resources where they are most needed. As the City's partner, Baxter & Woodman, Inc. will assist the City with a successful project that addresses improvements in reliability and safety, pumping operations, and efficiency, while working with the City staff to develop feasible and cost-effective recommendations for both pumping stations.

Based upon our discussions with you and our team's previous experience with numerous facility needs assessments and infrastructure evaluations, the Baxter & Woodman team has the right combination of technical skills and practical engineering experience to produce a successful, on time, within budget project for West Allis. The City will have the advantage of our expertise in planning, evaluating and designing water system facilities based on:

- Recent water pump station evaluation experience with an emphasis on medium and large size utilities in Wisconsin and Illinois.
- Successful completion of numerous evaluation, planning, and design engineering projects for water utilities.
- Extensive knowledge of Wisconsin drinking water systems and regulations, combined with local, state and regional project experience.

The City is challenged with making informed, best-value long term infrastructure decisions, and the Baxter & Woodman team is well-positioned to assist you in this effort. I will serve as Project Manager for the City's Water Utility Facilities Evaluation. I have dedicated my career to drinking water engineering and have completed dozens of water facility planning and evaluation projects having requirements just like yours.

If you have any questions regarding our proposal or need additional information, please contact me at 608-347-1542. We look forward to working together with the City to identify feasible solutions that meet the needs of your Water Utility and develop a clear plan for the future of these critical water facilities.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS

Gerald D. Groth

Gerald D. Groth, PE
Wisconsin Regional Manager

GDG:se

CONTENTS

The strength of Baxter & Woodman is our people and our purpose. Building community value with every project we do is the force that drives us, and our fundamental core values are the principles we live by . . .

STRATEGY FOR SUCCESS

The City of West Allis (City) has purchased water on a wholesale basis from the Milwaukee Water Works (MWW) for over 100 years. The City operates two supply connection points to the MWW system, with one at South 56th Street/West National Avenue, and at South 77th Street/West Pierce Street. MWW's estimated maximum available flows to the City are approximately 6 million gallons per day (mgd) at the National Avenue meter station, and approximately 10 mgd at the Pierce Street meter station.

In addition to the 210 miles of water transmission and distribution water mains owned and operated by the City, the West Allis Water Utility operates five additional booster pumping and storage facilities as follows:

FACILITY	LOCATION	FUNCTION	YEAR IN SERVICE
116th & Rogers Tank	S. 116th Street & W. Rogers Street	Elevated Storage	1967
84th & National Tank	S. 84th Street & W. National Avenue	Elevated Storage	1993
96th & Lapham Reservoir	S. 96th Street & W. Mitchell Street	Ground Storage	1959
96th Street Pump Station	S. 96th Street & W. Mitchell Street	Booster Pumping	1959
84th Street Pump Station	S. 84th Street & W. National Avenue	Booster Pumping	1977

The City's distribution storage system consists of two elevated 1.5 million gallon storage tanks and one 4 million gallon underground storage reservoir. The underground reservoir was constructed in 1959 and includes a booster pump station (96th Street PS). The reservoir has an earthen cover (see aerial photo of 96th Street Pumping Station and 4 MG Reservoir to right).

The 4 MG underground reservoir is immediately west of the 96th Street Pump Station.

The 84th Street Pump Station is equipped with two pumps, including one that is connected to a direct-drive standby gasoline engine. These two pumps take suction directly from the West Allis east service zone and boost the water into the City's west service zone.

The 96th Street Booster Station consists of three booster pumps along with a separate reservoir bypass pump located in a below grade vault located south of the booster pumping station. The booster pumps that take suction from the reservoir have a rated capacity

of 20 million gallon per day (mgd), but the Water Utility's maximum daily pumpage has ranged between 6.4 and 8.5 mgd since 2010, with the Utility's average day water demand averaging 5.3 mgd over the same period.

Based on meeting the average hour of the maximum day demand, the current 96th Street Pump Station is significantly oversized for the future expected pumping needs in the City. In addition, the Station's three main pumps have experienced maintenance issues the past several years along with the bypass booster pump that is experiencing motor issues.

Baxter & Woodman Inc. understands that the intent of this Facility Needs Assessment Project is to provide the City Water Utility with a comprehensive Capital Improvement Plan with recommendations to upgrade and/or rehabilitate the pumping facilities along with proposed project costs and a timetable to have these facilities on line.

The automation and controls system for the water facilities will be evaluated for opportunities to increase efficiency and streamline operations.

A TWO-PHASED APPROACH

Baxter & Woodman will provide a group of professionals who are ready to work together with your utility operations staff as a team to evaluate both of the existing West Allis Water Utility pumping stations. The team members that we have chosen for this are highly experienced in the design and operation of drinking water pumping facilities. These team members include design engineers and operations specialists, as well as water supply, electrical, mechanical and structural engineers.

We have included two subconsultants on our team to best serve the City:

- **Chris Kaempfer, PE – Kaempfer and Associates.** Chris has been actively involved with the West Allis Water Utility throughout the course of your efforts working with MWW and their continuing water rate cases with the Wisconsin Public Service Commission. Chris will be involved with the evaluation of existing pump operations and efficiently improvements. In addition, he will provide recommendations to lower WE Energies demand charges to the Water Utility, and potential lowering of extra capacity demand costs charged to the City by Milwaukee Water Works.
- **Richard Boya – Powrtek Engineering.** Rick will be performing the electrical evaluation and assessment of emergency power.

Instrumentation & Controls and other technology-related services will be provided by **Concentric Integration**, a wholly-owned subsidiary of Baxter & Woodman. Founded in 1999, Concentric focuses on the unique technology needs of municipalities. They create products, systems, techniques, and methodologies that quickly improve operational efficiency and control costs.

Our overall approach to this project is to divide the scope of work into two phases:

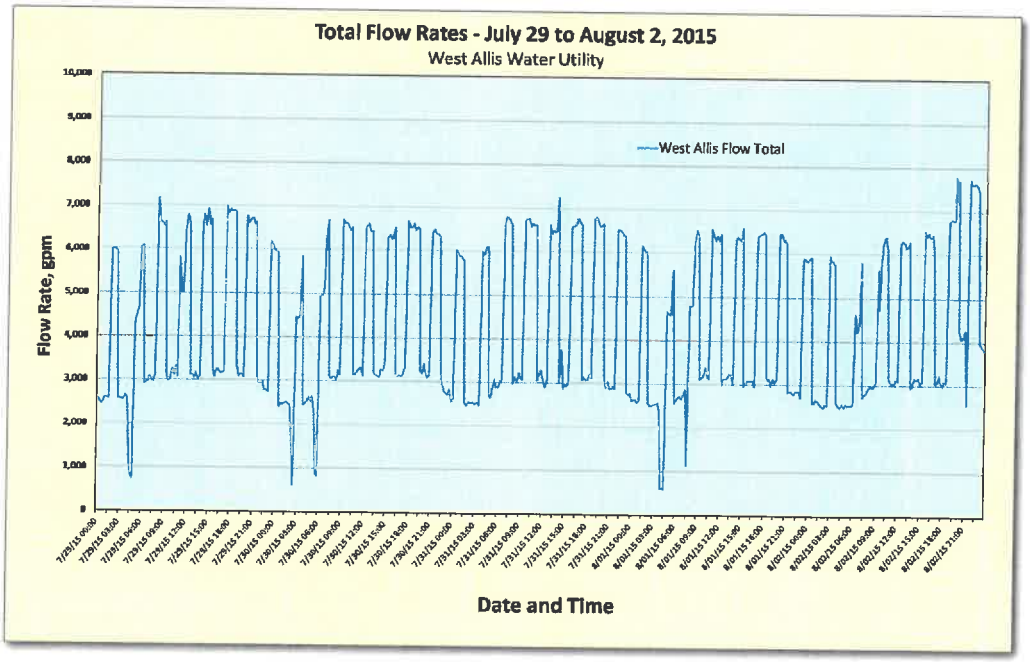
- **On-Site Evaluation and Reporting**
- **Improvements Planning**

Phase 1: On-Site Evaluation and Reporting

For the on-site evaluation phase, each team member will perform a detailed condition assessment of the equipment, processes and systems respective of their discipline, at each of the two pumping stations. City operations staff will be called upon to share their experience and knowledge of each facility with our process, electrical, mechanical, structural and operations-focused team members. A room by room, process by process, condition assessment will be made to complete the field evaluation segment of this project. Phase 1 will conclude with the preparation of Needs Assessment report, with chapters that describe and evaluate the basic design and operation of each facility with detailed information on the capacity, condition and remaining useful life of key equipment, systems and processes.

Phase 2: Improvements Planning

The Phase 2 Improvement Planning effort will include the identification and development of improvement options for pump station operation as well as the process, electrical, mechanical and structural systems associated with each facility. Conditional improvements to the existing equipment and room spaces of each facility will be identified to complete the planning effort. Phase 2 will end with the preparation of Capital Improvement Plan that identifies and prioritizes the improvement options in conjunction with estimates of probable project cost and benefit to the operation, capacity, and longevity of each facility.



Members of our team have already reviewed significant amounts of Milwaukee pumpage data from the City's involvement in the MWW rate case. We will use this data to recommend strategies to lower wholesale costs charged by MWW to West Allis.

SCOPE OF SERVICES

The Baxter & Woodman team has reviewed your requested scope of services and agree with the requested minimum tasks. In addition to the identified minimum scope listed in the RFP, we propose to perform the following services in conjunction with this project:

Phase 1: On-Site Evaluation and Reporting

1. Conduct a project kickoff meeting with key City operations staff to confirm the scope of services, project goals and schedule.

2. Submit a request for information for both facilities, including reservoir/booster station record drawings, pump curves and operating data (pumpage, system pressure, etc.) and for the last two years.

3. Process and Operations:
    a. Conduct the on-site evaluations focused on the operation and pumping system processes. Review the hydraulic flow characteristics through each facility's entire piping system, including suction and discharge piping, booster pumping equipment and appurtenances. Collect data for each pumping unit from facility construction documents, operator input and physical observations.
    b. Observe and discuss station and system operations with City staff, such as, but not limited to the pumping flow rate, durations of daily operations, pump control, suction and discharge pressure variations, and ground reservoir operation. Include discussions and performance data review on change of flow, system start-up/ shut-down, and change of season conditions.
    c. Observe and discuss the interrelations between pumping units, MWW supply connections, and elevation storage facilities with City staff.
    d. While on site, review the condition of the facility's room spaces and equipment, recording any noticeable deficiencies in physical condition, equipment age, or operational performance.
    e. Review operating data and compare pumping rates to determine how efficiently the pumps are operating compared to original pump curves

4. Electrical:
    a. Conduct on-site observations of the existing electrical systems at each facility.
    b. Supplement data collection with a review of construction documents for each facility.
    c. Prepare one-line diagrams for each facility noting the equipment, panels, transformers, etc. Document the nameplate information for the significant equipment units. Discuss the maintenance, cleaning and testing history and protocols with City operations staff.
    d. Observe the condition and make note of the apparent age of the electrical equipment.
    e. Prepare a listing of the various electrical systems at each facility.

f. Meet with City staff to discuss plant operations and electrical equipment performance, noting any concerns.

g. Review and analyze emergency power integration at each facility.

5. Instrumentation & Control:
   a. Conduct on-site observations of the existing instrumentation, controls, telemetry, technology, and related automation/SCADA components at the two major water facilities.
   b. Supplement data collection with a review of construction documents as needed for each facility.
   c. Prepare a process and instrumentation listing for the significant instrumentation and control equipment
   d. Meet with City staff to discuss plant operations with regard to existing instrumentation and control equipment and SCADA system performance, noting any concerns and discuss the SCADA system history, updates, alarm and event logging, and operating protocols with City operations staff.
   e. Evaluate the technologic systems' applicability for future use.
   f. Provide basic guidance, priority, and budget costs for upgrades related to the two major pumping station facilities, including use of additional technology not currently on site, improved remote monitoring with cameras, intrusion alarms at all doors and hatches (including the reservoir).
   g. Prepare recommendations for related system-wide technological (automation and related) infrastructure operational improvements and their probable project costs.

6. Mechanical:
   a. Conduct on-site observations of the existing mechanical systems at each facility.
   b. Supplement data collection with a review of construction documents for each facility.
   c. Document the nameplate information for the significant mechanical units, including building Heating, Ventilating and Air Conditioning needs. Review heat loss associated with existing single pane glass installation at 84th Street PS location. Discuss the maintenance history and protocols with City operations staff.
   d. Observe the condition and make note of the apparent age of the mechanical equipment.
   e. Meet with City staff to discuss the condition of the occcupiable spaces and note any concerns.
   f. Identify any safety concerns associated with the current space utilization practices.

7. Structural:
   a. Conduct on-site observations of the existing structural components at each facility.
   b. Supplement data collection with a review of construction documents for each facility.

c. Discuss the station building maintenance history and protocols with City operations staff.

d. Observe the condition and make note of the apparent state of the building structural components.

e. Meet with City staff to discuss the condition of the structural components, ADA access issues, building and site security of each facility and noted potential improvements.

f. Identify any safety concerns associated with the current condition of each facility.

8. Prepare Needs Assessment report chapters that present the findings of the on-site investigations including descriptions of key equipment and systems noting the condition, remaining useful life and deficiencies.

9. Submit the draft report chapters in electronic pdf format for review and comment by City staff.

Phase 2: Improvements Planning

1. Meet with City staff to review the findings of the on-site evaluation. Discuss improvement ideas to correct the noted deficiencies and enhance facility efficiency. Prepare a list of those improvements deemed to have the highest benefit to operation of each facility.

2. Review electrical demand charges paid to WE Energies and extra capacity demand service costs paid to MWW. Investigate possible operational changes to reduce these City Water Utility variable operating costs.

3. Determine if reducing the capacity of the booster station would be advantageous to operations or efficiency.

4. Evaluate whether the City could more efficiently utilize the reservoir bypass pumps.

5. Analyze and further develop the scope of each of the improvement items to a level where reliable planning level estimates of probable cost can be developed.

6. Prepare a Capital Improvement Planning chapter that provide discussions of improvement items and options that address the noted deficiencies and efficiency enhancements for each facility, including estimates of probable project costs. The report will include:
   a. Prioritized list of improvements based upon the benefit each brings to improving each facility's general operation, capacity, efficiency and overall reliability.
   b. Recommendations on methods and/or equipment that would improve energy efficiency with anticipated payback periods.

7. Meet with City staff to discuss the draft report findings, conclusions and recommendations.

8. Based on comments from City staff on the draft report, incorporate comments and finalize the report. Provide one electronic pdf copy and three final paper copies of the final report for City use and future reference.

9. Meet with elected officials to review overall project conclusions.

PROJECT SCHEDULE

The City will benefit from Baxter & Woodman's ability to meet key project milestones. Our team proposed for your project can begin immediately upon notification to proceed. During the initial project phases, Baxter & Woodman will meet with the City project team representatives to define critical milestones, and develop a project schedule that allows staff involvement at the appropriate phases and meets critical timing constraints.

A facility evaluation project such as this typically takes three to four months to complete, depending on meeting schedules and extent of any needed field testing. Our team will strive to complete the final report with recommendations by late 2017 or early 2018.

1. FIRM INFORMATION

A proud history and service-oriented culture was established in 1946 by our founders, Richard Baxter & Lorrin Woodman. As a result of hard work, commitment, and ever expanding engineering capabilities, Baxter & Woodman, Inc. has grown to a full service firm serving Wisconsin, Illinois, Indiana, and Florida.

Today, firm principles and culture remain the same: **provide outstanding service to clients in support of safe and healthy environments for their residents**. Baxter & Woodman staff of 239 professionals provide planning, design, and construction expertise in transportation, water, wastewater, and storm water facilities, surveying, technology, mapping, funding, and more.

Dedicated to combining **sound engineering practices** with **emerging technologies** to provide **sustainable, innovative solutions.**

Multiple Locations for Responsive Service

Services for the City's project will be coordinated primarily from our **Milwaukee, Madison,** and **Burlington** offices, with support from other locations as needed.

Office locations include:

WISCONSIN: Milwaukee, Madison, Burlington

ILLINOIS: Chicago, Crystal Lake, DeKalb, Mokena

FLORIDA: West Palm Beach, Ft. Lauderdale, Key West

These regional offices have been established to respond quickly to requests for meetings or to visit project sites. Staff members routinely work out of various office locations in order to provide the specific services and expertise our clients require.

Baxter & Woodman, Inc.

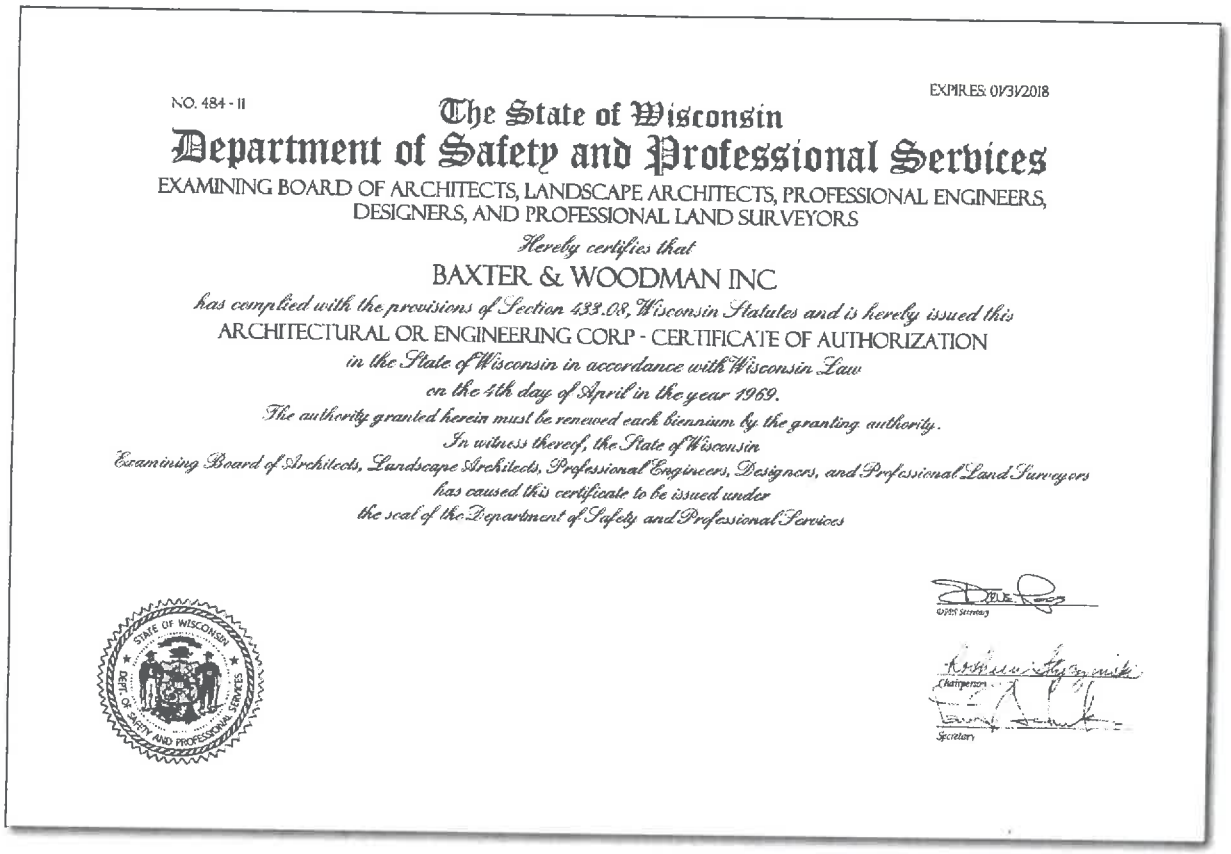
115 South 84th St.
Suite 175
Milwaukee, WI 53214
414-257-3150

2005 West Beltline Highway
Suite 201
Madison, WI 53713
608-277-1230

256 South Pine St.
Burlington, WI 53105
262-763-7834

2. TYPE OF ORGANIZATION

Baxter & Woodman is a **corporation** authorized to conduct business in the State of Wisconsin.



NO. 484 - II

EXPIRES: 01/31/2018

The State of Wisconsin

Department of Safety and Professional Services

EXAMINING BOARD OF ARCHITECTS, LANDSCAPE ARCHITECTS, PROFESSIONAL ENGINEERS, DESIGNERS, AND PROFESSIONAL LAND SURVEYORS

Hereby certifies that

BAXTER & WOODMAN INC

has complied with the provisions of Section 433.08, Wisconsin Statutes and is hereby issued this

ARCHITECTURAL OR ENGINEERING CORP - CERTIFICATE OF AUTHORIZATION

in the State of Wisconsin in accordance with Wisconsin Law

on the 4th day of April in the year 1969.

The authority granted herein must be renewed each biennium by the granting authority.

In witness thereof, the State of Wisconsin

Examining Board of Architects, Landscape Architects, Professional Engineers, Designers, and Professional Land Surveyors

has caused this certificate to be issued under

the seal of the Department of Safety and Professional Services

STATE OF WISCONSIN DEPT. OF SAFETY AND PROFESSIONAL SERVICES

Chairperson

Secretary

3. FIRM PRINCIPALS

Derek Wold, PE, BCEE will serve as Principal in Charge for the City's Water Utility Facilities Evaluation. As an Executive Vice President of the firm, Derek will monitor the efforts and progress of the project team and confirm that the necessary resources are available to complete your project.

EDUCATION & CREDENTIALS

- B.S. in Civil Engineering, University of Illinois at Urbana-Champaign.
- M.S. in Environmental Engineering, Illinois Institute of Technology.
- Licensed Professional Engineer
- Board Certified Environmental Engineer, American Academy of Environmental Engineers

EXPERIENCE

- 21 years of water/wastewater engineering experience.
- **Project Manager for the Schaumburg Water System Analysis and Improvements and the Elmhurst Water System Evaluation, two of our highlighted work examples with many elements similar to the City's project.**
- Project Manager for Oak Forest Water System Analysis to evaluate deficiencies and recommend improvements.
- Project Manager for Plainfield Water System Master Plan, including creation of WaterCAD model.
- Project Manager for Beecher Water System Master Plan using WaterGEMS modeling software to analyze and evaluate water supply, storage, and distribution facilities.
- Project Manager for Mundelein Energy Performance Contract, which analyzed ways to reduce energy consumption and streamline operations at Village water and wastewater facilities.
- Project Manager for City of Fort Atkinson Aeration System Energy Study.

STRENGTHS

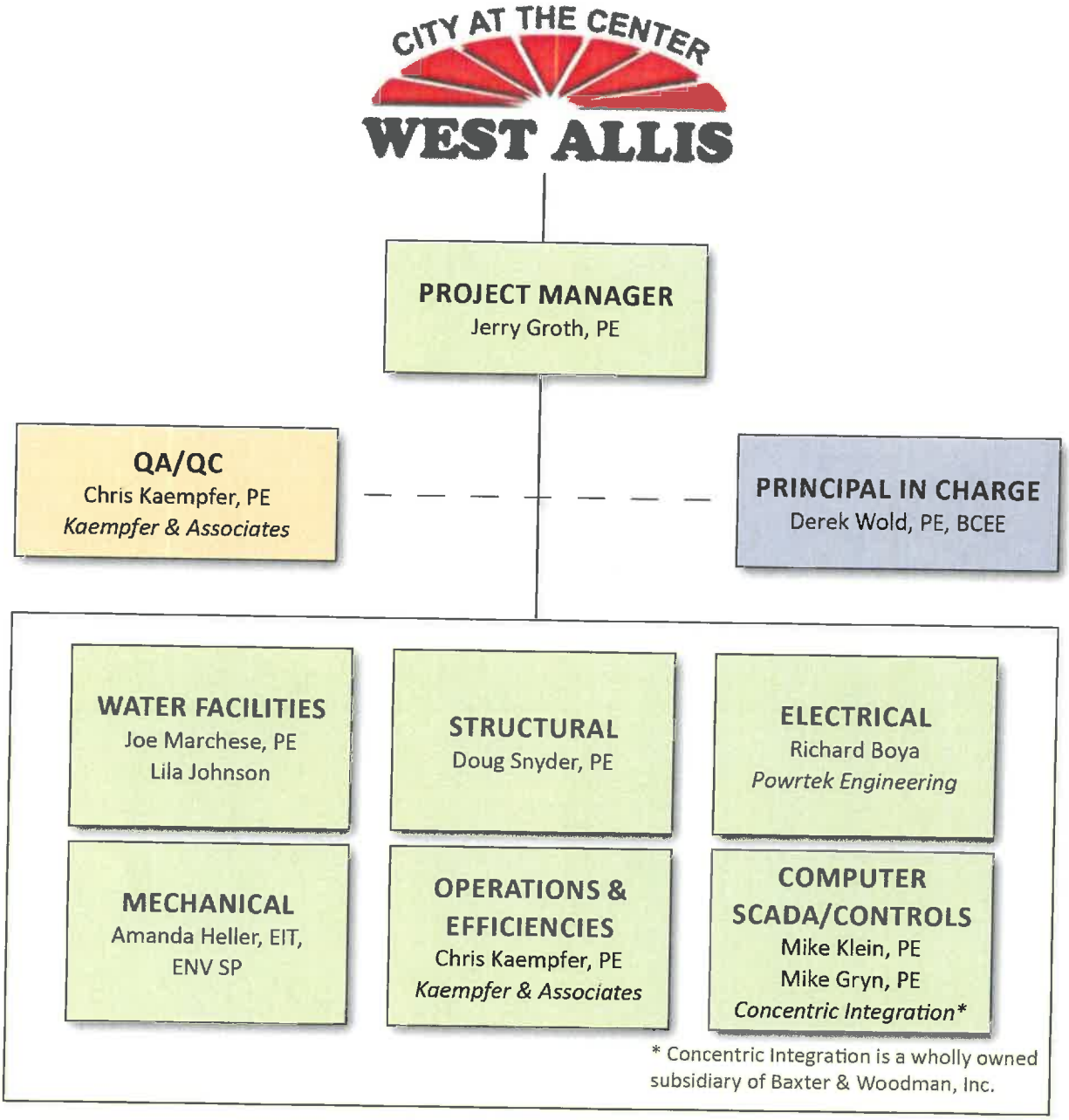
- Leads Baxter & Woodman's Water/Wastewater Group.
- Excellent working relationship with regulatory agencies.
- Collaborative leader and team player - Hands-on leader who will instill a cooperative effort to meet the goals of the project.
- Expertise with various water and wastewater improvement funding sources.
- Familiar with current regulations, watershed groups, and similar projects with local agencies.
- Works closely with many growing and established municipalities and other public agencies to plan infrastructure to serve growth and redevelopment areas.

HONORS

- Received the 2017 Collection Systems Award from Central States Water Environment Association.

4. KEY PERSONNEL

The City of West Allis will receive the benefits of a comprehensive, well-coordinated project team with expertise in all of the required project elements. This project team will meet your defined schedule and budget goals. Resumes for the project team immediately follow.



BAXTER & WOODMAN Consulting Engineers

Gerald D. Groth, PE
Project Manager

Education
B.S., Civil/Environmental Engineering, Iowa State University, 1979

M.S., Sanitary Engineering Iowa State University, 1984

Joined Firm in 2007

Years of Experience: 38

Registrations
Licensed Professional Engineer: Illinois

Licensed Professional Engineer: Wisconsin

Licensed Professional Engineer: Iowa

Associations
American Water Works Association

American Society of Civil Engineers

Jerry serves as Regional Manager in charge of our Madison, Wisconsin office. His in-depth consulting experience focuses on water supply engineering including booster pumping stations, wells, well pumps, water distribution systems, elevated storage tanks, ground level reservoirs, water treatment, comprehensive system analyses, hydraulic reviews, field investigations, and vulnerability assessments. His expertise on these projects includes:

Water Systems
Planning, design and project management experience for all major components of a potable water system, including:

- Wells; shallow sand and gravel, limestone, and deep sandstone.
- Well pumps; line shaft and submersible pumps.
- Booster pumping stations; Pre-packaged booster pumps (below and above grade), single and multiple centrifugal pumps (horizontal and vertical), vertical turbine.
- Water storage facilities; elevated and ground level facilities fabricated of painted steel, glass-lined steel, cast-in-place concrete, and composite structures.
- Water main; PVC, ductile iron, and pre-stressed concrete.
- Water treatment; iron and manganese removal, softening, VOC removal, radium/radon reduction, chemical feed systems and surface water treatment applications construction.
- Comprehensive water system analyses including computerized distribution analyses, demand and capacity projections, development of improvement alternatives for water supply and distribution systems, field investigations, water loss assessments, water rate studies, and hydraulic issues.
- Investigative designs and studies including construction and rehabilitation of water supply wells, detailed hydraulic and pumping considerations, contaminant removal, chlorination, chemical addition, and other water treatment issues.

Representative Projects

Fort Atkinson, Wisconsin
South Zone Booster Pumping Station
Project Manager and Lead Water Supply Engineer for implementation of the City's South Zone Booster Pumping Station. This project included complete development of a new high pressure zone to serve approximately 350 homes which had low water pressures. The project included analysis, design, and construction services for the addition of 5 booster pumps with a total capacity of 3,000 gpm, on-site and off-site water main, building modifications, electrical power supply, HVAC, controls with VFD, SCADA integration, and standby power generator in a separate exterior enclosure.

Windsor Sanitary District No. 1, Wisconsin
Well No. 1 Reservoir & Booster Pumping Station
Project Manager and Lead Water Supply Engineer for the addition of a reservoir and booster pumping station to WSD's existing Well No. 1 facility. The project

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included the addition of a 600,000 gallon reinforced concrete reservoir, a new pumping station with 3 booster pumps of 1,000 gpm each, on-site water main, chemical feed, electrical power supply, HVAC, controls with VFD, SCADA integration, and standby power generator included within a separate room. The project also included rehabilitation and replacement of the pump and electrical supply feeding Well No. 1.

High Pressure Zone Booster Pumping Station
Project Manager and Lead Water Supply Engineer for design and construction of an above grade pumping station with generator, booster pumping station skid, and future re-chlorination facilities for new high pressure zone east of Highway 51.

Beloit, WI
Well No. 14, Blending Reservoir & Pumping Station
Project Manager and Lead Water Supply Engineer for the design and construction of a new deep well, 2.5 MG pre-stressed concrete, wire wound, ground level potable water storage tank, and pumping station to mitigate high nitrate levels from nearby Well #11. The new water supply facilities will also be used to help prop up hydraulic gradients in this area and provide for the ability for "off-peak" electrical power utilization.

Madison Water Utility, WI
Unit Well No. 20 Upgrade
Project Manager and Lead Water Supply Engineer and Lead Water Supply Engineer for design and construction of Unit Well 20 Booster Pump Addition and Facility Upgrades
Booster Pumping Station 115 Upgrade
Project Manager and Lead Water Supply Engineer for design and construction of BPS Booster Pumping Station 115 Upgrades including Generator and Booster Pump Additions for dual pressure zone facility Upgrade

Rockford, IL
Inter-zone Booster Facility
Lead Project Engineer and Project Manager for the Elmwood/Rockton Road Inter-zone booster station, which provides water from the Low Zone to the West High Zone. The booster station was a pre-fabricated below grade station with three booster pumps and a control valve to allow water to flow back from the high pressure zone into the low pressure zone.

Crystal Lake, IL
Water System Master Plan
Lead Project Engineer for comprehensive system analysis and modeling to determine operational efficiencies, and identify and prioritize cost effective improvements to the City's water system for a twenty-year period of time.

Loves Park, IL
Comprehensive Water System Analysis
Project Manager for comprehensive system analysis and modeling for the City of Loves Park in advance of major water treatment improvements due to high radium levels. Modeling efforts included numerous simulations for water main reinforcement and facility improvements, including several interzone booster and pressure reducing stations. A 20 year Water System Improvement Plan was ultimately developed and presented in the report.

BAXTER & WOODMAN Consulting Engineers

Joseph W. Marchese, PE
Water Engineer

Education
B.S., Civil Engineering
University of Wisconsin-Madison, 2001

Joined Firm in 2007

Years of Experience: 16

Registrations
Licensed Professional Engineer: Wisconsin

Associations
Wisconsin Wastewater Operators Association

American Water Works Association

Joe has assisted with the planning and design of water treatment facilities, wastewater treatment plants, lift stations, and water supply wells and well houses, in addition to the preparation of planning and facility studies.

Representative Projects

Lake Como Sanitary District No. 1, Wisconsin
Water System Interconnection
Design engineer of a water transfer station including booster pumping equipment, a pressure reducing system, and the interconnecting water main.

Twin Lakes, WI
Fire Protection Water Supply System
Project Engineer for the preparation of a report to determine the best option for providing fire protection to the downtown redevelopment area. Assisted with the design of the chosen fire protection water supply system including wells, pumping equipment, in-ground storage, and hydropneumatic tank.

Elkhorn, WI
Lakeland Water Treatment Facility Expansion
Design engineer of pumping equipment, filtration equipment for iron removal, softening equipment for radium removal, and buried raw water storage.

Pell Lake Sanitary District, WI
Nippersink Water and Sewer Service Study
Project Engineer for the preparation of a report to determine the feasibility of providing public water and sewer service to the Nippersink area.

Paddock Lake, WI
Water Supply Wells No. 3 and 4
Construction inspector for the construction of two sand and gravel municipal wells and the designer of the associated wellhouse buildings including pumping equipment, hydropneumatic tank, and chemical feed.

Paddock Lake, WI
Wastewater Treatment Plant Facilities Planning
Project Engineer for the WWTP Facilities Planning Report. Included facilities planning for the expansion of the Paddock Lake Wastewater Treatment Plant and preparation of a report consistent with Wisconsin Department of Natural Resources requirements.

Wastewater Treatment Plant Improvements
Project Engineer for the design of improvements to the wastewater treatment plant. Construction manager for the construction of the improvements to the wastewater treatment plant.

Wastewater Treatment Plant WPDES Permit Renewal Assistance
Project Engineer for the renewal of the Paddock Lake wastewater treatment plant WPDES permit, which expired December 31, 2010.

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Delavan, WI
WalCoMet Hydraulic Analysis
Project Engineer for the hydraulic analysis and long term plan for the WalCoMet conveyance facillities downstream of WalCoMet's Williams Bay #2 Pumping Station. This hydraulic analysis is a requirement for approval of the Lake Lawn Resort Wastewater Pumping Station.

Force Main Hydraulic Analysis
Project Engineer for the preparation of a report to determine the system-wide effects of several sewage lift stations pumping into a common force main.

Geneva National Property Association, WI
Facilities Study Update
Project Engineer for the preparation of a report to update the conditions of the water system, sewer system, and roadways within the private development.

Delavan Lake Sanitary District, WI
Lift Station No. 5 Improvements
Project engineer for reconstruction of the wet well; installation of a new wet well water level measurement system; installation of new motors, variable frequency drives, and motor controls; new power and control wiring to lift station; modification of existing electric to accommodate new motor controls; and other miscellaneous items of work.

Milton, Wisconsin
Parkview Drive Lift Station and Force Main Design
Project Engineer for the design of a wastewater lift station near the intersection of Parkview Drive and Townline Road, and a force main extending along Parkview Drive and East Madison Avenue.

Twin Lakes, WI
WWTP Operational Evaluation
Project Engineer for the preparation of a report to study the unit process operations at the WWTP including an evaluation of Phosphorus removal options due to more stringent limits.

Frankfort, IL
WWTP Facility Plan & Headworks Improvements
Project Engineer for preparation of a facility plan and design documents for improvements to the Village's wastewater treatment facilities. The facility plan included evaluation of the existing condition of the three wastewater treatment plants, identifying rehabilitation improvements, and determining how to best comply with potential future effluent regulations. The improvements design included replacement of raw sewage pumping stations, expanding capacity of the Regional WWTP, a new excess flow pond, and new administration/lab building. A manual bar rack and Aquaguard screen were replaced with two new mechanical Headworks screens with automatic controls to operate on level differential. The project also included replacing the existing washer/compactor.

Barrington, IL
Lift Station No. 2 Replacement
Project manager for replacement of an existing prefabricated steel lift station with a precast concrete duplex submersible lift station with a rated capacity of 325 gpm.

BAXTER & WOODMAN Consulting Engineers

Lila R. Johnson
Water Engineer

Education
M.S., Civil Engineering, Milwaukee School of Engineering, 2017

M.S., Civil Engineering, Milwaukee School of Engineering, 2017

Joined Firm in 2017

Years of Experience: 1

Skills
Java
HEC-RAS
HEC-HMS
ArcGIS
AutoDesk Fusion
JMP

Lila recently graduated from Milwaukee School of Engineering with a degree in Civil Engineering. Her relevant coursework included solid waste engineering, hydrology, hydraulics, WWTP design, pollution prevention, environmental law, GIS, water quality analysis, environmental statistics, environmental microbiology, and air pollution.

Lila's experience includes creating a database of U.S. anaerobic digestion wastewater facilities, assisting with environmental compliance testing, and developing a plan for increased biogas production.

Representative Projects

Union Grove, WI
Well 6 Improvements
Project Engineer assisting with Phase 1 improvements, which include planning and design for Water Supply Well No. 6 and design of transmission main between Well No. 6 and US Highway 45.

Somers, WI
Water Diversion Application
Project Engineer for preparation of application for Lake Michigan water diversion as a straddling community in accordance with the Great Lakes Compact.

Somers, WI
STH 31 Water Main Extension
Project Engineer for design of approximately 1.5 miles of 16-inch and 24-inch water main along State Highway 31 (Green Bay Road) and County Highway L (18th Street). These improvements are proposed to increase the available fire flow to the First Park 94 Development. A 16-inch water main will connect to the recently installed water main at Festival Foods and extend north along the west side of Green Bay Road to an existing 24-inch water main crossing of Green Bay Road at 18th Street. 1,790 lineal feet of the water main will be installed by open cutting and 3,460 lineal feet will be installed by horizontal directional drilling. The 24-inch water main will extend along the south side of 18th Street from the existing crossing at Green Bay Road to the existing metering location west of 39th Avenue with connections to a segment of 24-inch near 47th Avenue. Pavement and lawn areas disturbed as part of the construction will be restored in-kind. The project will also include the preparation of a concept plan for an enlarged meter at this Kenosha Water Utility metering location.

Paddock Lake, WI
Water System Improvements
Project Engineer for design of Wells No. 1 and 2 Pump Station and storage improvements, Well No. 3 emergency backup pump station, and Wells No. 1 and 2 source water rehabilitation and well pump replacement to enable connection between the Village's east and west water systems and to improve water quality, storage, and fire protection.

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Prior to joining Baxter & Woodman, Inc.:

Oconomowoc, WI
Wastewater Treatment Facility
Environmental Engineer for Senior Design project

- Worked with a team to develop a plan to increase biogas production and better utilize biogas at facility
- Communicated with Grind2Energy to determine feasibility of a local high school's waste size
- Communicated with Oconomowoc about benefits of adding new high strength waste source
- Created specifications and drawings for all new components

Diepsloot, South Africa
Project Engineer for Community Plumbing Challenge, Team USA

- Worked with a team of plumbers to redesign toilet facilities
- Modeled suggested plans using 3D software
- Lead team of students from Diepsloot in 3D design
- Researched and presented on community and proposed design

InSinkErator, Racine, WI
Served as Environmental Engineering Intern

- Created database of anaerobic digestion facilities in the United States through research and contact
- Worked with marketing team to develop marketing plan for Grind2Energy

4-H at University of Minnesota Extension Center for Youth Development, St. Paul, MN
Served as STEM Unit Head

- Organized STEM based activities for the general public to view at the Minnesota State Fair. Activities included: virtual reality, flight simulation, Makey Makey, drones, and Rube Goldberg.
- Coordinated schedules for events and employees and set tasks and hours

City of Austin Wastewater Treatment Plant, Austin, MN
Served as Laboratory Assistant

- Worked with facility staff to complete testing for environmental compliance and perform daily monitoring of wastewater
- Worked to organize the laboratory safety data sheets, laboratory materials, and chemicals
- Worked to ensure laboratory met state safety standards

BAXTER & WOODMAN Consulting Engineers

Douglas R. Snyder, PE
Structural Engineer

Education
M.S., Civil Engineering
Marquette University, 1995

B.S., Civil Engineering,
University of Wisconsin – Platteville, 1988

Joined Firm in 2001

Years of Experience: 29

Registrations
Licensed Professional Engineer: Illinois

Licensed Professional Engineer: Wisconsin

Certified Wisconsin Wastewater Operator
Phosphorus Removal Grade 4
Activated Sludge Grade 4
Disinfection Grade 4
Laboratory Grade 4

Certified Wisconsin Water Operator
Distribution Grade 1
Groundwater Grade 1
Iron Removal Grade 1
Zeolite Softening Grade 1

Associations
American Water Works Association

Doug's expertise focuses on structural studies and design, water and wastewater system design and operation, and inspection services. His hands-on approach to design and construction has allowed Doug to manage and design a vast variety of municipal water/wastewater. He is very knowledgeable in Wisconsin Department of Natural Resources, State of Wisconsin Public Service Commission, and State of Wisconsin Department of Commerce rules and regulations. Also he is familiar with the associated funding agencies including the Wisconsin DNR Clean Water Fund, Wisconsin Rural Water, and USDA Rural Development.

Representative Projects

Doug has prepared studies and designs for water pumping stations:

Elkhorn, WI
Lake Como Sanitary District, WI
Pleasant Prairie, WI

He has prepared building structural designs for:

Delavan, WI – Water Treatment Facilities, Salt and Vehicle Storage
Elkhorn, WI – Lakeland Water Treatment Facility
Elwood, IL – Multiple well houses
Jefferson, WI – Well 5 Treatment Facility
Union Grove, WI – Water Treatment Facilities
Waterford, WI – Department of Public Works Facility

Doug was Project Manager and Structural Engineer for elevated storage tanks:

Caledonia, WI
Delavan, WI
Elkhorn, WI
Hartland, WI
Jefferson, WI
Lake Geneva, WI
New Berlin, WI
Pleasant Prairie, WI
Sturtevant, WI
Waterford, WI

Delavan Lake Sanitary District, WI
Lift Station Condition Study
Inventory and make recommendations for mechanical, structural, and electrical repair and upgrade of each of the District's 13 sewage lift stations.
Lift Station No. 7 Improvements
Planning, design, and construction for electrical and mechanical modifications that eliminated confined space issues and provided access to the existing station.

City of Delavan, WI
Lake Lawn Lift Station
Planning and design of a submersible lift station that included above grade valves, emergency power, sewage grinding, sewage sampling, and metering. This also includes an additional planning report that outlines the upgrades necessary for each of the six lift stations that discharge to the common force main system that is owned and operated by WalCoMet, the regional wastewater treatment facility, and included a hydraulic analysis of the system for current average and peak flows, 10 year future flow, and 20 year future flow.

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Wisconsin Rural Water Association

Wisconsin Wastewater Operators Association

Village of Grafton, WI
11th Avenue Lift Station Upgrade
Design and construction of a submersible lift station that included above grade valving, emergency power, and metering. This also included an additional planning report showing a possible future upgrade of this station.

Caledonia, Wisconsin
Elevated Water Storage Tank
This 0.75 mg concrete composite elevated tank was construction using new AWWA/ACI composite tower recommendations.

Delavan, Wisconsin
Concrete Composite Elevated Water Storage Tank
This 1.0 mg elevated water storage tank was the first concrete composite tank in Wisconsin. The design included ground lighting for architectural enhancement. Doug also completed a logo alternatives study.

Jefferson, Wisconsin
Elevated Water Storage Tank
This project consisted of the design and construction of a 0.75 mg concrete composite elevated water storage tank. Doug completed a study of style alternatives, as well as logo alternatives. This tower was located at the former tower site.

Lake Geneva, Wisconsin
Concrete Composite Elevated Water Storage Tank
This project consisted of the design and construction of a 1.5 mg concrete composite elevated water storage tank. Unusual features of the tank included a fire station in the tank's base and a second floor storage area. This tank design won the 1997 Wisconsin Association of Consulting Engineers Grand Award.

New Berlin, Wisconsin
Elevated Water Storage Tank
This 0.75 mg concrete composite elevated water storage tank was designed, bid and constructed on a fast track. It was designed and bid with 3 style alternatives, of which composite was selected. The project also included special fill/discharge pipe provisions.

Sturtevant, Wisconsin
Concrete Composite Elevated Water Storage Tank
This project consisted of the design and construction of a 0.75 mg concrete composite elevated water storage tank. The project was unusual in that it incorporated a base floor and two intermediate storage floors. Doug also completed a logo alternatives study, from which three different style alternatives were bid.

Village of Union Grove, WI
Maple Grove Lift Station
Planning, design and construction of a submersible lift station that includes above ground valving, emergency power, and metering.
13th Avenue Lift Station
Design and construction of pump modifications at an existing wetwell/drywell lift station.

Powrtek Engineering, Inc.

RICHARD J. BOYA

Education
B.S.-Electrical Power Technology, Milwaukee School of Engineering, Wisconsin
Journeyman, Electrician, 1982 - Wisconsin

Profession Registration
State Certified Master Electricians License in Wisconsin since 1991

Professional Affiliation
Instrument Society of America (ISA) - Member
Member of Electrical Review Board in the City of New Berlin, Wisconsin

Relevant Experience
Mr. Boya has over 30 years of experience including municipal, architectural, airport and industrial projects. Experience includes engineering and design of electrical controls, fire alarm systems, telemetry systems, SCADA, Longwatch, and power distribution systems for industrial manufacturing plants, water pumping stations, water treatment plants, well house(s), waste water treatment plants and sports facilities.

Water Treatment Plants, Well & Booster Pumping Station Experience:

- **Oshkosh WI - Electrical Study phase, electrical design and construction services for the Southwest Booster Pump Station.** The booster pump station housed four (4) 700 gpm pumps with 40 HP motors and included a standby generator, automatic transfer switches, motor control center and security system.
- **Brookfield WI - Electrical Design for the installation of a new WRT radium removal plant.** The project included routing electrical distribution and controls from the existing booster pump station to the WRT radium removal plant. The design included lighting power, existing electrical distribution modifications and integration to the City's existing SCADA system.
- **Hartford WI - Electrical Design for a new $6,000,000 water treatment plant and well pump station.** The new water treatment plant included a 100 HP deep submersible well pump, four 75 HP high service pumps, backwash filter and chemical system. The electrical design included a 1,600 amp 277/480 volt electrical service, 650KW diesel generator, three motor control centers with full instrumentation. The design also included all instrumentation control panels, connections to the Owner's existing SCADA system, security, fire alarm, provisions for future cameras, and specifying many of the process instruments.
- **Stevens Point WI - Electrical Design for a new $11,000,000 water treatment plant.** The project included two new buildings with one for the water treatment plant and the other for the four raw water pumps and chlorine treatment. The well pump building provides for four raw water pumps ranging from 125 HP up to 250 HP. The water treatment building provided for treatment at 6 mgd with expansion up to 13 mgd that included two pumping chambers, backwash, gravity filters, plate settler, chemical treatment and sludge removal. The power distribution system provided for normal and emergency power for the 3000 amp 277/480, 3 phase, 4 wire electrical service. The emergency generation system consisted of four 400 KW natural gas generators with capacity for up to seven 400KW generators.
- **Fitchburg WI - Electrical Design for a new Well House No. 11.** The project included two new Cutler Hammer motor control centers to control a new 250 HP variable frequency drive for the 250 HP submersible well pump. The electrical distribution system included dual feed 600 amp, 277/480 volt, 3 phase, 4 wire services from the utility company using a closed transition transfer switch. The lighting, chemical pumps and their controls, and connections to the Owner's existing SCADA system were also included.
- **Stevens Point WI - Electrical Design for a new water treatment plant.** The project included a new building for the chemical feed pumps, connections into the existing water distribution system and for the power distribution system. The power distribution system included a step up transformer from an existing well house located approximately 2,000 feet

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from the water treatment plant that provided normal and emergency power for the 277/480, 3 phase, 4 wire electrical service. The controls included a new SCADA panel that was integrated into the existing SCADA control system.

- **North Aurora IL - Electrical Design for upgrading existing Well House 3.** The project included removing the existing 40 year old General Electric MCC and replacing it with new Cutler Hammer MCC with a new across the line starter for the existing 300 HP submersible well pump and building distribution systems. The existing 600 amp, 480 volt, 3 phase, 3 wire service was upgraded to a 277/480, 3 phase, 4 wire electrical service to feed the new MCC.
- **Hartford WI - Electrical Design for a new water booster station.** The project included new equipment building to house the power distribution system including the main service equipment and automatic transfer switch and packaged booster pump system. The power distribution was 277/480, 3 phase, 4 wire electrical service and exterior mounted emergency generator.
- **North Aurora IL - Electrical Design for a new $3,500,000 Radium Removal Water Treatment Plant.** The electrical distribution system consists of a 2000 amp 277/480 volt electrical service, new 650KW generator and automatic transfer switch, 480 volt switchboard, 240 volt panelboards and a 400HP variable frequency drive to power the adjacent Well #4 submersible pump.
- **Batavia IL - Electrical Design for constructing a water booster pumping station**. The booster pumping station included 3 new variable frequency drives for the 3 new centrifugal pumps located in a converted building previously used for storing emergency vehicles. The project included removing the existing equipment, new service upgrade, generator relocation and new automatic transfer switch, new Cutler Hammer MCC and main control panel. The main control panel consisted of an Allen Bradley PLC and 15 inch HMI to monitor and control the booster pumps.
- **North Aurora IL - Electrical Design for a new $4,800,000 Radium Removal Water Treatment Plant.** The electrical distribution system consists of a 1,600 amp 277/480 volt electrical service, new 900KW generator and automatic transfer switch, 480 volt switchboard, 240 volt panelboards and a 400HP variable frequency drive to power the adjacent Well 5 submersible pump.
- **Little Chute WI - Electrical Evaluation of the VFD well pump installation Little Chute Wisconsin, Well No.4 facility.** Services included an onsite visit and evaluation of damage caused by the PLC system programmer and VFD installers (System Integrator) and reviewed associated documentation. The project included reviewing contract documents, shop drawing review and making recommendations for action against the System Integrator.
- **Geneva IL - Electrical Design to upgrade an existing water booster station with well.** The project included removing the existing motor control center, installing a new motor control center, upgrading the existing electrical service and re-connection and upgrades to the Owner's existing SCADA system. The existing FVNR starters for the booster pumps were removed and new variable frequency drives were installed to limit water hammer on the existing underground water distribution system. A New 200HP FVMR starter was installed for the existing 200HP deep submersible well pump.
- **Onalaska WI - Electrical Design for upgrading for existing Well House No. 7 and Well House No.8**. The project included removing the existing Westinghouse Motor Control Centers with 250 HP FVNR starters and replacing each with new Cutler Hammer MCC with new 250 HP soft starters for the existing 250 HP vertical shaft well pumps and building electrical distribution systems. The existing 600 amp, 480 volt, 3 phase, 3 wire services were upgraded to 277/480, 3 phase, 4 wire electrical service to feed the new MCC. In, addition, the ventilation systems were also upgraded and new heating systems installed under the electrical contract.
- **New Richmond WI - Electrical Design for a new Well House No. 6.** The project included a new Cutler Hammer MCC to control a new 200 HP soft starter for the 200 HP vertical shaft well pump. The electrical distribution system included a new 600 amp, 277/480 volt, 3 phase, 4 wire service, a new 400KW diesel generator. The lighting, chemical pumps and their controls, and connections to the Owner's existing SCADA system were also included.
- **Elburn IL - Electrical Design for upgrading existing Well House 3 and Well House 4 with a new radium removal plant.** The project included electrical and control modifications to add radium removal equipment manufactured by WRT and replace the existing 175 HP well pumps with larger 300 HP submersible pumps. The existing across the line starters are being replaced with variable frequency drives to limit water hammer.

BAXTER & WOODMAN Consulting Engineers

Amanda R. Heller, EIT, ENV SP

Mechanical Engineer

Education

M.S., Environmental Engineering, Milwaukee School of Engineering, 2013

B.S., Architectural Engineering-Mechanical Systems, Milwaukee School of Engineering, 2013

Joined Firm in 2014

Years of Experience: 5

Certifications

Engineer-in-Training, Wisconsin

Envision Sustainability Professional, Institute for Sustainable Infrastructure

Honors & Awards

2017 Central States Water Environment Association: Global Water Stewardship Award

2013 Central States Water Environment Association: Academic Excellence Award

2013 Central States Water Environment Association:

Amanda earned a Master of Science degree in Environmental Engineering and a Bachelor of Science degree in Architectural Engineering - Mechanical Systems from the Milwaukee School of Engineering. She completed her Master's thesis on Wastewater Treatment Technologies.

Representative Projects

Village of Union Grove, WI
Water System Planning Study
Project Engineer for water distribution system analysis and planning. A WaterGEMS Water model was developed to identify and prioritize future water distribution system projects. The creation of a WaterGEMS water model utilized existing WaterCAD Water model data along with existing water system GIS data.

Village of Williams Bay, WI
Water System Master Plan
Project Engineer for recalibration of the Village's existing computer model. This included conducting fire flow testing and making adjustments to the computer model based on this test data. The work also included determining the remaining water capacity from the current supply and treatment system. A concept plan was provided to show how to control chlorine residuals in the distribution system affected by ammonia in the source water. Alternate methods for disposal of solids from the treatment system were investigated. A concept plan future expansion of the supply and treatment system was provided. In addition to determining existing conditions and establishing future needs, this study outlined a plan for a replacement water treatment facility located away from the current site and includes treatment for ammonia nitrogen.

Village of Waterford, WI
Water Treatment Plant Planning Study
Project Engineer for preparation of an Engineering Report that evaluates options to increase the capacity and improve operational flexibility at the Water Treatment Facility that serves Wells No. 4 and No. 5.

Madison Metropolitan Sewerage District, WI
Pump Station 15 Sustainable Improvements
Project Engineer for a set of sustainable improvements to upgrade the condition, capacity, and reliability of the station. The improvements included: increased the station's design capacity for average daily flows and firm pumping capacity; Installed new pumping equipment, pipes, valves and appurtenances; new electrical and control systems; new flow monitoring equipment; back-up power options including dual electrical feeds and/or generator; new HVAC and odor control systems; building addition to include a superstructure to house new equipment (options for the superstructure included rest rooms, a fish-cleaning station, and a boat wash to remove invasive aquatic plants); inspect, repair and protect corroded concrete in wet well; rehabilitate and automate wet well sluice gates; rehabilitate or replace diversion manhole to PS 5; surge analysis for the force mains to both PS 8 and PS 16; other improvements as needed including screens, cranes, landscaping, driveway/ pavement, plumbing, water service, gas service; and incorporation of regional sustainable living initiatives including solar panels, pervious pavements, picnic/bench/kiosk areas, spurs to nearby

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Student Paper Competition:
Graduate Winner

Previous Work History

Assistant Project Manager,
J.F. Ahern Co. Fond du Lac, WI
(2012 – 2014)

recreational trails/parks and other initiatives identified during the ISI envision design process.

City of Fort Atkinson, WI
Aeration Tank Blower
Project Engineer for addition of a fourth blower high efficiency blower to the existing aeration tank blowers. The project includes design services, potential procurement of the new blower, assistance during bidding for blower installation and associated piping. Applications for a Focus on Energy grant and construction authorization permit, if required by the Wisconsin Department of Natural Resources, will be completed and submitted.

Town of Somers, WI
Sheridan Road Lift Station Replacement
Project Engineer for replacement of the existing 600 gpm dry pit submersible sewage lift station with a larger wet pit submersible station with the discharge piping, standby generator, and sampling facilities within a building on the site. Each pump in the Sheridan Road Station will have a capacity of approximately 1000 gpm. The new lift station will include submersible pumps in with on-site equipment to facilitate removal of pumps for maintenance and cleaning of the wet well with a Town owned vactor truck. Other features included are a hinged entry hatch for the wet well, a shut-off valve on the station inlet, and an emergency connection port to facilitate emergency pumping. The lift station will also be equipped with standby power and a building for housing controls and generator equipment. Site approvals are necessary from the Wisconsin Department of Natural Resources (Waterway).

Beecher, IL
2017 Wastewater Treatment Plant Expansion
Project Engineer for improvements needed at the wastewater treatment facility to meet the potential tremendous growth resulting from the possible construction of the third regional airport in nearby Peotone. Baxter & Woodman prepared an updated Facility Plan, created an equipment replacement plan, evaluated improvements to meet potential future regulations, and designed improvements needed to expand the plant capacity to 1.2 MGD. Improvements included an additional secondary clarifier, sludge dewatering, ultraviolet disinfection, and phosphorus removal system. Baxter & Woodman assisted the Village with applying for funding through the low interest IEPA Water Pollution Control Loan Program.

Kishwaukee Water Reclamation District, Illinois
Phase 1B Biological Improvements
Project Engineer (Raw Sewage Pumps, Primary Clarifiers, Fermenter, UV and Sludge Pumps) for the $46 million design, permitting and construction of Phase 1B Biological Improvements including upgrades to the raw sewage pumping process, construction of new primary clarifiers, new fermenter, a new A20/5-stage Bardenpho biological process to meet anticipated ammonia limits and future nutrient removal requirements, construction of final clarifiers and new UV disinfection facilities, grease receiving station, biogas treatment, combine heat and power biogas generator, sidestream equalization, improvements to the excess flow treatment capability and a Lab-Administration Building.

Kaempfer & Associates, Inc.

Christopher Kaempfer, PE

Mr. Kaempfer serves as President and Chief Engineer at Kaempfer & Associates, Inc. He entered the U.S. Army as a 2nd Lt in the Corps of Engineers in the Fall of 1972. After basic and advanced officer training courses at Fort Belvoir, Virginia, he was assigned to the 864th Engineer Battalion as the Civil Engineer and Construction Engineer for the Unit.

After leaving the U.S. Army, Mr. Kaempfer worked for three consulting engineering companies until he started his own consulting firm, Kaempfer & Associates, in 1987. The firm started with three full-time and two part-time employees and has grown to 27 employees. The firm specializes in wastewater management and water supply engineering. The firm has served approximately 60 municipal clients in Wisconsin and northern Michigan from their office in Oconto Falls, Wisconsin.

He has prepared a number of technical papers on water supply and wastewater management issues and has presented two of the papers at the annual WEF Conference. Mr. Kaempfer has served on the technical advisory committee for establishing effluent limits for ammonia in Wisconsin and has presented several short courses on wastewater treatment at the University of Wisconsin-Madison.

Education
B.S, Civil Engineering, Michigan Technical University, 1971
M.S, Civil Engineering, University of Missouri – Rolla, 1972

Professional Registrations
Professional Engineer: Wisconsin, Illinois, Michigan, Oregon

Professional Affiliations
American Society of Civil Engineers
American Water Works Association
Water Environment Federation

Relevant Experience

Water Utility Customer Demand Factor & Public Fire Protection Evaluation for the City of West Allis

Water Utility Contested Rate Case for the City of West Allis

Water Supply and Distribution Study for the Oak Creek Water and Sewer Utility

Groundwater Supply Study for the City of Fond du Lac Water Utility

Water supply studies for the North Park Sanitary District, Crestview Sanitary District, City of Franklin, Village of Black Creek, Village of North Fond du Lac, Village of Bonduel, and the Suamico Sanitary District

Aquifer Storage and Recovery Feasibility Study for the Oak Creek Water and Sewer Utility

Water Distribution Study for the City of Oconto Falls

SCADA systems for the City of Fond du Lac Water Utility, City of Gillett, City of Oconto Falls, Village of Bonduel, Village of Mishicot, and the Village of Black Creek

Kaempfer & Associates, Inc.

Booster pump stations

- Ryan Road Booster Pump Station with four 1,575 gpm pumps for the Oak Creek Water and Sewer Utility
- Northeast Booster Pump Station with four 750 gpm pumps for the City of Fond du Lac Water Utility
- Trowbridge Drive Booster Pump Station with two 600 gpm pumps for the City of Fond du Lac Water Utility
- Expansion of Pioneer Road Booster Pump Station with two 600 gpm pumps for the City of Fond du Lac Water Utility
- Renovation of Main Booster Pump Station with two 2000 gpm pumps for the City of Fond du Lac Water Utility
- Expansion of McDermott Park Booster Pump Station with two 750 gpm pumps for the City of Fond du Lac Water Utility

Elevated storage tanks

- 0.30 MG Pulcifer Avenue Elevated Storage Tank for the City of Gillett
- 0.40 MG Tower Drive Elevated Storage Tank for the Village of Black Creek
- 0.50 MG Martin Road Elevated Storage Tank for the City of Fond du Lac Water Utility
- 0.25 MG Whispering Springs Elevated Storage Tank for the City of Fond du Lac Water Utility
- 1.0 MG Northwest elevated Storage Tank for the City of Fond du Lac Water Utility
- 2.0 MG Puetz Road Elevated Storage Tank for the City of Franklin

Ground storage reservoirs

- 3.0 million gallon (MG) Trowbridge Drive Ground Storage Reservoir for the City of Fond du Lac Water Utility
- 0.50 MG Northeast Ground Storage Reservoir for the City of Fond du Lac Water Utility
- 6.0 MG Puetz Road Ground Storage Reservoir for the Oak Creek Water and Sewer Utility

Well stations

- Well Station No. 22 for the City of Fond du Lac Water Utility
- Well Station No. 1 for the Village of Black Creek
- Well Stations No. 3 and 4 for the City of Oconto Falls
- Well Stations No. 23, 24, and 25 for the City of Fond du Lac Water Utility
- Well Station No. 3 for the Village of Bonduel
- Well Stations No. 1 and 2 renovation for the City of Gillett
- Well Stations No. 2, 3, and 4 for the City of Peshtigo

Major distribution and transmission mains

- 24-inch transmission main for the City of Green Bay Water Utility
- 30-inch transmission main for the City of Fond du Lac Water Utility
- 12-inch and 10-inch transmission mains for the City of Gillett
- 24-inch transmission main for the City of Franklin Water Utility
- 16-inch Velp Avenue transmission main for Suamico Sanitary District
- 16-inch, 12-inch, and 10-inch transmission and distribution mains for Crestview Sanitary District
- 20-inch, 12-inch, and 8-inch transmission and distribution mains for North Park Sanitary District
- 12-inch and 10-inch transmission mains for the Village of Bonduel
- 24-inch and 16-inch transmission main for the City of Fond du Lac Water Utility
- 16-inch, 12-inch, 10-inch, 8-inch, and 6-inch diameter transmission and distribution mains for the Village of Suamico

CONCENTRIC INTEGRATION

Michael D. Klein, PE

BWCSI Automation Manager

Education

B.S., Electrical Engineering
University of IL
(Champaign/Urbana), 1992

IL Benedictine College, 1988

Joined Firm in 1999

Years of Experience: 24

Registrations

Licensed Professional Engineer:
IL

Associations

Instrumentation, Systems, and Automation Society

Papers/Presentations Experience Highlights

High Tech Operator Program
AWWA (2013/2014)

Working (Smartly) with Device Networks
IL Section AWWA – Information Management and Technology Conference (October 2007)

Mike oversees a staff of electrical engineers and technicians that focus on providing planning, design, and implementation of a variety of technology related projects, including instrumentation, controls, SCADA systems, telemetry systems, and information technology projects and support. Mike provides services for all phases of these projects from initial design through final completion, and currently focuses on project management and overall operations management for the department.

Specific Hardware/Software Skill Level

Hardware:

- Allen-Bradley SLC Series and Micrologix PLC platforms (highly proficient)
- Allen-Bradley CompactLogix and ControlLogix PLC platforms (highly proficient)
- Allen-Bradley PLC-5 PLC platform (proficient)
- Allen-Bradley PanelView Plus and Standard Panelview (highly proficient)
- Red Lion Operator Interface Terminals (highly proficient)
- GE 90-30 Series PLCs (proficient)

Software:

- RSLogix 500 (highly proficient)
- RSLogix 5000 (proficient)
- RSLogix 5 (proficient)
- FactoryTalk View Studio ME (highly proficient)
- Crimson 2 & 3 for Red Lion OITs (highly proficient)
- GE Proficy Machine Edition (proficient)
- GE Proficy iFix (proficient)
- AutoCAD (highly proficient)
- Microsoft Visio (highly proficient)
- Microsoft Access (highly proficient)

Representative Projects

City of Fort Atkinson, Wisconsin
SCADA System Replacement
Involvement included system design, panel installation and overall project management. The project consisted of replacing obsolete, proprietary SCADA system RTUs with an industry standard PLC-based system for the City's water facilities. Baxter & Woodman also assisted the City with receiving a grant from the local electric utility as the upgraded SCADA system was designed to allow operation of pumps during off-peak hours. The sites included a main pump station and five remote sites which included wells, pump stations, a ground storage reservoir and elevated tanks.

City of Beloit, Wisconsin
Well #14, Weiser Reservoir and Pumping Station
Provided instrumentation/control system design and electrical peer review for implementation of a new well, blending reservoir and pumping station to mitigate high nitrate levels from nearby Well #11. The new water supply facilities will also

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Energy Cost Management
IL Section AWWA
(August/October 2006)

be used to help prop up hydraulic gradients in this area and provide for the ability for "off-peak" electrical power utilization.

City of Chicago Department of Water Management, IL
SCADA System Maintenance
Project Manager for a 5-year contract for the City's Department of Water Management, which includes support of approximately 500 PLCs, 100 OITs (operator interface terminals), over 100 servers and SCADA computers, and dozens of related network equipment. The City's Rockwell/Allen Bradley PLC5 infrastructure works with GE Proficy iFix SCADA to provide operations staff with a state-of-the art-SCADA infrastructure. The scope of work began with a full inventory and assessment of DWM's SCADA assets, moved to creating a SCADA System Master plan, developed a multi-year SCADA Capital Improvement Plan, and is now in a multi-year implementation of recommended improvements.

Lake County Public Water District, IL
SCADA System Assessment/Replacement
Involvement included providing all services required to complete the SCADA system assessment, as well as the system replacement project management. Tasks included attending client meetings, visiting the site and collecting field information, writing the assessment report, and managing the replacement project, including developing the transition plan. The project consisted of assessing the District's SCADA system, which encompasses the main Water Treatment Plant, remote pumping stations, elevated tanks and flow meter vaults, providing a preliminary design concept, and implementing the SCADA system replacement. The District had obsolete control hardware/software and was looking to replace the system with current technology. The replacement consisted of the installation of redundant PLCs, remote I/O panels, redundant SCADA servers and SCADA client nodes.

Lake in the Hills, IL
Well 9 & 17 WTP SCADA Integration
The Village needed to add a well to their existing water system, and make upgrades to an existing water treatment plant (WTP). BWCSI provided the SCADA integration services for the project which consisted of coordinating with the water treatment equipment supplier to integrate the system status and alarms from the upgrade WTP into the SCADA system. In addition to the process upgrades, the Village also desired to have video surveillance at the WTP since it was near a park and susceptible to vandalism. BWCSI provided the video system consisting of six IP-based cameras, a video server, and video management software. BWCSI also installed a firewall to allow secure remote access to the video system from the Internet.

Mundelein, IL
SCADA System Replacement
Involvement included system design, panel installation and overall project management. The existing system used leased phone lines for communication to remote sites which were unreliable, and response from the phone company to fix any phone line issues was poor. The project consisted of replacing all of their existing SCADA equipment with non-proprietary equipment and use of an unlicensed spread spectrum radio system for communications. Our services consisted of complete design, procurement, installation, testing, and training for the replacement SCADA system. The project consisted of a master site and seven remote sites which included pump stations, reservoirs and elevated tanks.

CONCENTRIC INTEGRATION

Michael Gryn, PE
Automation & Controls

Education
M.B.A Strategy, Execution and Valuation; Charles H. Kellstadt Graduate School of Business - Chicago IL, 2008

B.S. Electrical Engineering Purdue University, West Lafayette, IN, 1998

Joined Firm in 2017

Years of Experience: 19

Registrations
Licensed Professional Engineer:
Illinois
Missouri
LEED Associated Professional

Associations
Consulting Electrical Engineers - President 2014-2016, Board Member since 2007

ChicaGO Safety & Sustainability Conference Planning Committee - Member since 2008

Consulting Electrical Engineers Young Professionals (CEEYP) - Founder 2013

Mike recently joined our firm bringing a wealth of electrical engineering experience in the water industry. He has been responsible for electrical and instrumentation designs for a multitude of project types including many water and wastewater designs for plant expansions or new plant facilities including full pump station designs. Mike has completed complex electrical and automation condition assessment for various facilities, which include the Chicago Jardine and Eugene Sawyer Water Filtrations Plants. He also has experience in power/generator load studies and electrical distributions design along with PLC upgrades, connection to master control stations, and instrumentation design. Over the last 10 years, Mike has been overseeing all project aspects from proposal through construction, for electrical and controls designs on over 35 projects with a $4.5M budget in design costs and over $500M in construction costs. Mike's passion is making sure owners and contractors achieve success together while completing their project.

Representative Projects

Schaumburg, IL
Water System Improvements Performance Contract
Electrical Engineer for a performance contract project for water system improvements. Baxter & Woodman is teamed with Johnson Controls to improve the Village's water system that aims to consolidate the operation of the Village's utility infrastructure and provide improved functionality. The goal is to update instrumentation and control to effectively manage storage volumes for fewer water quality issues, minimize water loss, and optimize energy use. Improvements include (but not limited to) new MCCs, modification of existing MCCs, new diesel generator, and SCADA & controls design.

Kishwaukee River Reclamation District, IL
WWTP Phase IB Biological Improvements
Electrical Engineer assisting during construction with implementation and installation of the District's Phase IB improvements. Improvements include upgrading the raw sewage pumping station; new primary clarifiers; new activated sludge biological process; new secondary clarifiers; UV disinfection; conversion of clarifiers to excess flow clarifiers; new operations and electrical building with new electrical switch, transfer switch, and dual fuel generator; biological p-removal; and new SCADA system.

While working for others:

MSD, St. Louis, MO
Dewatering Pump Station - LMRDP Improvements
The scope of services for the LMRDP Dewatering Pump Station is the design of the P&ID drawings, specifications for the controls and instrumentation. This includes the proposed pump controls, along with the proposed valve configurations and flow monitoring. IDCS worked in concert with the process engineers to ensure that the control descriptions follow the intent of the pump station design. This pump station can split the flow between the Lemay Treatment Plant and the proposed Enhanced High Rate Clarification (EHRC) facility. This station had the added complexity of designing for personnel safety with hazardous gas and oxygen monitoring; we introduced CCTV to provide someone on the topside a visual if there is a person in

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Awards & Achievements

2013 Charles Schoeler Award (CEE) - May 2013
Awarded for the dedicated hours to encouraging member involvement in the CEE, and establishing the CEE Young Professionals Networking group within the organization.

QUINTy Award (IDCS, LLC) - September 2011
The Persistence achievement is awarded to the individual who shows dedication and determination to deliver nothing but the most ideal results. This was awarded by my colleagues/peers for the countless hours spent on the multiple projects work at Fox Metro Water Reclamation District.

PEAR Award (AECOM/CTE) - July 2004
Performance Excellence Award and Recognition for quality work completed during the Balad Air Base Refueling Project Nominated by peers for efforts to complete the analysis for reconditioning Iraqi refueling facilities for use by the US Armed Forces aircraft

"Pre-Stress Test - Finding a Flow to Trust" - 2016 IWEA Annual Conference
Presented individual paper with findings from a study to find a reliable flow measurement at a WWTP

the pump station depths. The pumps have local pump control panels which house pump protection modules to protect the pumps and motors. The pump station has bar screens to trap the large debris; the bar screens will have automatic bar screen climbers to remove debris build up. Tunnel level will be measured with pressure sensors installed on the header pipe. The pump station will have flow meters, gates, valves, an HVAC system, and fire alarm and security systems which will be remotely monitored. This includes specifications for all instrumentation and control, input/output lists, P&ID plans, coordination with process engineers to ensure the pump station will operate as designed

MSD, St. Louis, MO
Maline Creek CSO Storage Facility
The Maline Creek Local Storage Facility Tunnel (MCT) and Tunnel Dewatering Pump Station (MCTDPS) is designed to relieve the Bissell Point North Interceptor Tunnel during high flows and store 12.5 MGD until the flows recede. The tunnel is expected to have an inside diameter of 28 feet by 3,000 feet long with a pump station in the middle of the tunnel for dewatering and additional storage. Flow will be diverted to the MCT at the three intake structures, when the pump station is at capacity, the diversion gate structures will be commanded to close. The MCT will store the CSO until the interceptor has capacity and the Bissell WTP can treat the flows. IDCS was a subconsultant with Jacobs and HDR to provide the instrumentation design for the Maline Creek Tunnel Dewatering Pump Station (MCTDPS). The MCTDPS has submersible pumps and will be connected to pump protection modules to protect the pumps and motors. The pump station will have bar screens to trap the large debris; the bar screens will have automatic bar screen climbers to remove debris build up. Wet well level will be measured with submersible level sensors in order to measure in the tight spaces around the screens. The pump station will have flow meters, gates, valves, an HVAC system, and fire alarm and security systems which will be remotely monitored. In order to dewater the tunnel the Bissell WWTP needs to have the capacity to handle the additional flows and therefore the command must come from the Bissell Point Pump Station. IDCS was a subconsultant to Jacobs for the electrical and instrumentation design of the MCT. The MCT and the MCTDPS will be able to function automatically to close the gates when the pump station wet well is full. IDCS designed the electrical power for the new equipment by using the spare capacity at existing diversion structure panels and provided fiber optic cable installed in the median of Riverview Drive.

MSD, St. Louis, MO
Jefferson Barracks Tunnel - LMRDP Improvements
The Jefferson Barracks Tunnel will be responsible for conveying sewage to the Lemay Water Treatment Plant (Lemay WTP) as well as storing potential combined sewer overflow (CSO) and storm sewer overflow (SSO) during a wet weather event. Lemay No. 3 Pump Station is required to pump retained CSO and SSO from the Tunnel to the Lemay WTP. IDCS established a preliminary layout for the control and instrumentation of the Jefferson Barracks Tunnel and Lemay No. 3 Pump Station which included evaluating the available methods of communication, gate control, and level monitoring as well as developing cost estimates for both facilities. Fiber optic cable was proposed as the primary communication network, using radio as a backup network. Radio path studies were used to evaluate the types of radios required. Tunnel level measurement was heavily investigated, including interviews with other water/wastewater districts for lessons learned. These preliminary studies were used in the detailed design portion of the project.

5. SUBCONSULTANTS

POWRTEK ENGINEERING, INC.
20711 Watertown Rd. Ste C
Waukesha, WI 53186

Powrtek Engineering, Inc. will be responsible for performing the electrical evaluation of both City pumping facilities and assessing the emergency power needs of the facilities.

Powrtek is as an electrical consulting firm dedicated to providing quality electrical engineering service to our clients and their projects. Their staff of engineers and designers has over 80 years of combined electrical engineering and design experience. From concept and design to construction and start-up, their mission is to provide clients with projects that are on time, and within budget. Their designs also include an extensive level of detail to provide tighter construction bidding and clarity for construction.

Their staff has extensive experience in all facets of electrical engineering and design, so they are able to incorporate concepts and ideas from one or several project groups into your project that may provide a better design, and in many cases, reduce project construction cost.

They are active in professional societies such as IES and ISA, and publish articles and provide papers on complex and sophisticated projects. Their project experience includes the $450,000,000 Miller Park Baseball field to $50,000 lift stations and all projects in between.

Powrtek Engineering's project experience includes: transportation; municipal; telecommunications; architectural; and industrial-related services including design of power distribution systems, instrumentation and control, interior and exterior lighting design, fire alarm systems, security systems for the facility types listed below:

- Airports Runway and Taxiway Lighting
- Navigational Aids
- Approach Lighting Systems
- Radium Removal Plants
- Electrical Equipment Buildings
- Waste Water Treatment Plants
- Sanitary Sewer Lift Stations
- Stormwater Lift Stations
- Industrial Wastewater Treatment Facilities
- PLC-based and Relay-based Control Systems
- SCADA Systems Design
- Water Treatment Plants
- Normal & Emergency Power Distribution Systems
- Duct Systems
- Electrical Control Systems
- Telecommunication Facilities
- Well Houses
- Industrial Complexes
- Booster Pump

KAEMPFER & ASSOCIATES, INC.
650 Jackson St.
Oconto Falls, WI 54154

Chris Kaempfer will be responsible for assisting with the evaluation of existing pumping equipment operations and pumping efficiency alternatives. In addition, based on his knowledge of the Milwaukee Water Works (MWW) supply and West Allis water pumpage history, he will be the primary team resource reviewing the demand charges paid to MWW and investigating possible operational efficiencies or changes that can be made to reduce these variable operating costs. He will also provide an overall peer review (QA/QC) of the entire report deliverables to the City.

Kaempfer & Associates, Inc. has performed water supply engineering services including surface water supply studies, water treatment studies, groundwater supply studies, and water distribution studies. Kaempfer & Associates, Inc. has performed design, construction, and start-up services for raw water supply mains, water distribution and transmission mains, wells, well stations, well renovations, booster pump stations, ground storage reservoirs, elevated storage tanks, SCADA systems, and well abandonments. Kaempfer & Associates, Inc. planned, designed, and constructed the first aquifer storage and recovery (ASR) well in Wisconsin for the Oak Creek Water and Sewer Utility, the first chlorine gas scrubber in Wisconsin for the Oconto Falls Water Utility and the first preformed chloramination system in the United States for the Oconto Falls Water Utility. Kaempfer & Associates, Inc. has provided operating and maintenance assistance for repainting elevated storage tanks, renovating mechanical and electrical systems, optimizing chemical feed systems, and optimizing process operating systems.

Examples of major projects completed by Kaempfer & Associates, Inc. include:

- Water Supply and Distribution Studies
- Groundwater Supply Studies
- Aquifer Storage and Recovery Feasibility Study
- SCADA Systems
- Well Renovation Work
- Production Wells
- Well Stations
- Major Distribution and Transmission Mains
- Elevated Storage Tanks
- Booster Pump Station
- Ground Storage Reservoirs

6. STAFF NUMBERS & CLASSIFICATIONS

With Baxter & Woodman, the City will receive a firm that provides a comprehensive range of municipal engineering and technology services. We continually refine our practices and expand our services to best meet the changing requirements of municipalities.

EMPLOYEES BY DISCIPLINE	
Discipline	Number of Employees
Administrative	29
CADD Technician	15
Civil Engineer	32
Inspector	31
Construction Manager	10
Electrical Engineer	3
Environmental Engineer	28
GIS Specialist	5
Geologist	1
Land Surveyor	4
Structural Engineer	4
Transportation Engineer	41
Water Resources Engineer	9
Automation Controls Engineer	21
Computer Science	6
TOTAL	**239**

7. CURRENT PROJECT COMMITMENTS

Baxter & Woodman successfully completes more than 200 water engineering projects per year. Key staff members for the Water Utility Facilities Evaluation are currently concluding activities on major projects. We are confident that with our resources, experience, and manpower, we will provide you with successful, efficient, and cost-effective engineering services.

Based on 267 hours of total work effort, this project represents an additional load of approximately 30 hours for each key staff member. Over a 12- to 16-week project schedule, this represents approximately two additional hours per week for each key staff member.

Based on both current and projected project workloads, our key and support staff have adequate time and the necessary resources available to serve the City of West Allis.

These are water engineering projects currently being managed out of our Wisconsin regional offices:

PROJECT	STATUS
Elmhurst Facilities Evaluation Study	9/15/17 estimated completion
Windsor Booster Station	Under construction
Northbrook High Pressure Zone	11/1/17 estimated completion
Madison Water Utility Blackhawk Tank	Under construction
Belvidere Well No. 8 Non-Compliance Assistance	9/1/17 estimated completion

8. SIMILAR PROJECTS

WATER SYSTEM EVALUATIONS

The Baxter & Woodman Water group is committed to protecting and preserving the water supply. Staffed by recognized experts in the field of water supply, treatment, and source protection, our engineers specialize in long-term system planning, design, construction, and operation of water systems. **Project Manager Jerry Groth** and our Water group have completed water system studies, master plans, and facility improvements for numerous communities and public agencies. Some of these include:

Supply • Treatment • Distribution • Storage • Trenchless Technologies • SCADA • Corrosion Control • Security

Specializing in:

- Assessing Needs & Capabilities
- Finding Funding
- Promoting Conservation
- Meeting Compliance Deadlines
- Protecting Community Health

WISCONSIN		
Beloit	Jefferson Water Utility	Stoughton
Burlington	La Crosse	Union Grove
Campbellsport	Lake Mills	Walworth
Delavan	Madison Water Utility	Waterford
Dodgeville	Milton	Waukesha
Elkhorn	Monroe	Waunakee
Fitchburg	Mount Horeb	West Bend
Fort Atkinson	Paddock Lake	Williams Bay
Hustiford	Shorewood	Windsor
Iron River	Somers	Union Grove

ILLINOIS		
Alsip	Gilberts	Palos Park
Aqua Illinois	Glenview	Palatine
Beecher	Hanover Park	Plainfield
Belvidere	Highwood	Rockford
Brookfield	Hinsdale	Roselle
Buffalo Grove	Hoffman Estates	Sycamore
Carpentersville	Island Lake	Richmond
Cherry Valley	Itasca	Richton Park
Country Club Hills	Lake in the Hills	Round Lake
Crystal Lake	Lemont	Schaumburg
Deerfield	Loves Park	Shorewood
DeKalb	New Lenox	South Chicago Heights
Elmhurst	North Park PWD	South Elgin
Elwood	Oak Brook	Western Springs
Frankfort	Oak Forest	Woodstock
Galena	Park Forest	Wood Dale

VILLAGE OF SCHAUMBURG, IL
WATER SYSTEM PERFORMANCE IMPROVEMENTS

CONTACT
Michael Hall, Assistant Director of Engineering and Public Works
847-923-6616

ROLE
Joint Venture with Boller Construction, teamed with Johnson Controls

STATUS
Ongoing

The Village of Schaumburg's water system was constructed over a series of decades through individual projects that addressed localized needs. This water system improvement project, as part of the performance contract, aims to consolidate the operation of the Village's utility infrastructure and provide improved functionality.

Baxter & Woodman produced construction documents, and also performed construction and start-up services to deliver the project on time and within budget.

The water system scope goal is to update instrumentation and control to effectively manage storage volumes for fewer water quality issues, minimize water loss, and optimize energy use. Baxter & Woodman teamed with Johnson Controls to provide a systematic evaluation of the various storage facilities, pump stations and water network that will deliver:

- Improved water quality by providing a more consistent chlorine residual through automation of tank turnovers. Water system improvements will include instrumentation at each of the Village's storage sites to calculate the water age and automatically pump at off-peak hours to provide adequate tank turnovers.
- Repurposed operator resources by shifting operational resources from manual site checks to preventative and planned maintenance.
- Renewed aging infrastructure by delivering a number of mechanical improvements throughout pumping stations.
- Minimized water main breaks due to SCADA enhancements that will allow staff to manage system pressures in a better way.
- Improved emergency response time, reduced downtime of equipment, and supplied water.
- Reduced electricity expenses. The improvements will result in approximately $60,500 per year of electricity savings by reducing demand charges at several sites and reducing operational energy at Plum Grove and Odlum pump stations.
- Flexibility for maintenance.
- Reconcile the financial impact of water operations daily. Specifically, indicate and assign a value to water lost on a daily basis.

HIGHLIGHTS:
- Design-Build Project Delivery
- Water System Evaluation
- SCADA Enhancements
- Water Accountability Portal
- MCC Replacement
- Post-Construction Operational Consulting

CITY OF ELMHURST, IL
WATER SYSTEM EVALUATION

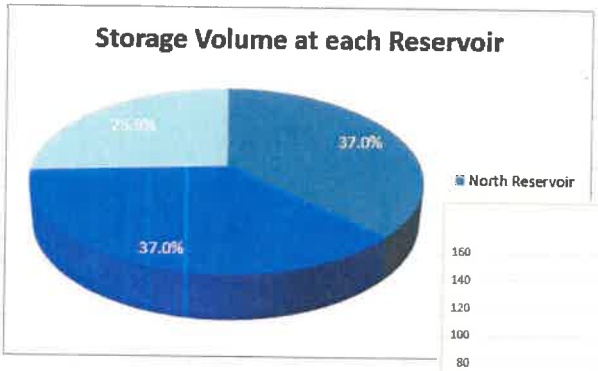
The City of Elmhurst receives its water from an upstream wholesaler (the DuPage County Water Commission), stores water in various reservoirs, and then utilizes booster pumps to provide water to residents, business, and institutions. Baxter & Woodman is conducting a comprehensive evaluation of the entire water system to develop and achieve a long term water system vision focusing on operational efficiency:

CONTACT
Paul Burris
Utility Operations Manager
630-530-3042

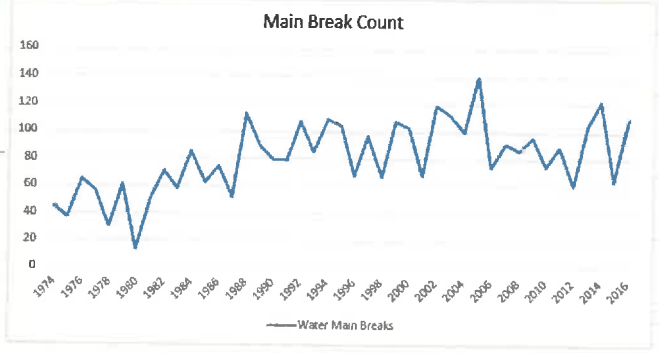
ROLE
Prime

STATUS
Ongoing

- Detailed evaluations of structural, electrical, and mechanical systems of water pumping facilities
- A holistic evaluation of the water pumping process control system, including an evaluation of motor control centers (MCCs), Variable Frequency Drives (VFDs), automation (SCADA), water system analytics, and related instruments and technologies.
- Water storage tank evaluations
- Water main leakage and water loss analysis
- Valves, metering, and instrumentation assessment
- Distribution system data and development of a new WaterGEMS hydraulic distribution model developed from the Village's Geographic Information System (GIS) database.
- Updates to the City's CMMS database for asset management



The study will provide recommendations for capital and operational efficiency improvements to decrease water loss and water main breaks and improve pumping and storage operations.



VILLAGE OF DEERFIELD, IL
WATER SYSTEM MASTER PLAN

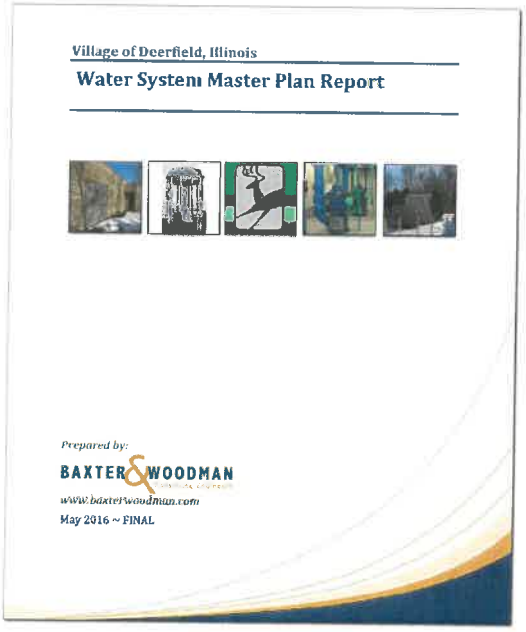
CONTACT
Robert Phillips, Asst. Village Engineer
847-719-7464

ROLE
Prime

STATUS
Completed, 2016

The Village hired Baxter & Woodman to conduct an analysis of the entire water system with the goal of developing an efficient, economical water system plan for operations, facilities, and the distribution system. The report outlined a systematic approach for making both short and long term capital and operational efficiency improvements to help with water loss and decrease the number of main breaks the Village experiences every year. As part of the analysis, the following items were reviewed:

- Past water use and future water demand projections.
- Existing system facilities operations.
- Distribution system data and development of a new WaterGEMS hydraulic distribution model developed from the Village's GIS database.
- Short and long term needs, including estimated project costs.



A new WaterGEMS hydraulic model of the Village's water distribution system, which correlates directly with the Village's GIS, was developed and utilized to assist with verification of system pressures, fire flow capabilities, and development of water main improvements along with review of alternative operational schemes. A proposed Water Main Capital Improvement Plan was developed to target water main improvements and help reduce non-revenue water loss.

CITY OF HARVEY, IL
(On behalf of Village of Homewood, IL)
WATER SYSTEM ASSESSMENT

CONTACT
John Schaefer
Public Works Director,
Village of Homewood
708-206-3470

ROLE
Prime

STATUS
Completed, 2016

The Village of Homewood receives potable water from the City of Chicago through the City of Harvey. In turn, water from Homewood is supplied to the Village of Flossmoor. As part of its contract agreement with the City of Harvey, the Village of Homewood is afforded the authority to conduct inspections of the facilities that provide drinking water to the Villages of Homewood and Flossmoor.

In late 2014, the Village of Homewood exercised its right to inspect Harvey's drinking water facilities and retained Baxter & Woodman, Inc. to complete an assessment of the major physical components of Harvey's drinking water system including the following items:

- ICCR Pumping Station (2.9 MGD)
- CJ O'Connor Pumping Station (28 MGD)
- Storage Tank Inspections
  - 600,000 Steel Ground Level Reservoir
  - 3.0 MG Reinforced Concrete Ground Level Reservoir
  - 5.0 MG Reinforced Concrete Ground Level Reservoir
  - 6.3 MG Reinforced Concrete Ground Level Reservoir
  - 1.0 MG Steel Elevated Tank

The completed assessment included comprehensive architectural, electrical, mechanical, and structural system review of two pumping stations and the four ground level reservoirs. Inspection of the elevated tank was omitted from the scope when since the tank had recently been painted.

In addition to general condition assessments, the comprehensive review included specialty testing and analyses of the electrical components, ground level reinforced reservoirs, and booster pumps as noted below:

- Booster pumping equipment inspections included pump testing and vibration analyses of the operating equipment at the CJ O'Connor Pumping Station.
- Electrical assessments included infrared thermography inspections of all electrical connections and appurtenances, along with generator load-bank testing.
- Reinforced concrete ground level reservoir inspectinos included a physical inspection of the exterior of the tanks, including foundations, walls, roof, overflows and vents; robotic ROV inspection of the interior below water surfaces; and a raft inspection of the above water sidewalls and ceiling.

Major Recommendations:

1. Review need for IC Pumping Station or make extensive repairs.
2. Improve operations for chlorine feed to maintain consistent entry to distribution system chlorine residuals.
1. Make repairs to the concrete ground level reservoirs at CJ O'Connor Pump Station.

MADISON WATER UTILITY, WI
BOOSTER PUMP STATION 115 UPGRADE

Madison Water Utility (MWU) hired Baxter & Woodman, Inc. to design and observe construction on an upgrade to their existing Booster Pumping Station (BPS) 115 and 3 MG reservoir to allow the facility to operate as a "two-zone" pumping station, with continued service to their existing low pressure zone. The proposed BPS 115 modifications (along with a separate watermain project by MWU) provides for increased system pressures nearby the existing pumping stations and provides for a second watermain connection to a new hospital and large commercial area on Madison's northeast side.

CONTACT
Kelly Miess
Utility Project Manager
608-261-9640

ROLE
Prime

STATUS
Completed, 2015

Major upgrades to BPS 115 included:

- Replacement of an existing 1,400 gpm low zone booster pump (installed in 1966) to a 2,100 gpm high zone booster pump.
- Addition of a fourth 2,100 gpm high zone booster pump for redundant fire flow to the new hospital and expanding commercial area.
- Addition of an exterior emergency backup generator for the facility with fencing.
- Replacement of the existing Motor Control Center and SCADA system originally (installed in 1966).
- An evaluation of extensive off-site and on-site watermains to provide desired and economical "two zone" pumping improvements.
- Miscellaneous site improvements.

MADISON WATER UTILITY, WI
UNIT WELL 26 PUMP STATION IMPROVEMENTS

Baxter & Woodman designed and provided construction services for an exterior generator; replacing the Motor Control Center (MCC) and SCADA equipment, replacing doors, providing new paving, painting floors and providing other miscellaneous improvements.

Unique features of the project included provisions to provide nearly continuous high zone booster pumping capabilities throughout the project duration. This project was bid with a multitude of alternatives to make sure that this project came in under budget.

CONTACT
Kelly Miess
Utility Project Manager
608-261-9640

ROLE
Prime

STATUS
Completed, 2014

New generator addition location between reservoir and cell carrier compound.

MADISON WATER UTILITY, WI
UNIT WELL 20 BOOSTER PUMPS UPGRADE

Baxter & Woodman designed and provided construction services for upgrades to two booster pumps at Madison's Unit Well 20 facility. Major project components included replacing two 1,100 gpm booster pumps with new 2,100 gpm booster pumps, replacing and reconfiguring the suction and discharge piping, valves and meters; replacing an existing 300 Hp well pump motor with a new well pump motor of 350 Hp; replacing the Motor Control Center (MCC) and upgrading the control components.

CONTACT
Pete Holmgren
Utility Project Manager
608-261-5530

ROLE
Prime

STATUS
Completed, 2013

The project had the City pre-purchase the booster pumps and MCC equipment to expedite the project. Unique features of the project included provisions to provide nearly continuous high zone booster pumping capabilities throughout the project duration and to provide means to provide temporary pumping in the event that a failure occurred when the facility was operating with only one booster pump. Lack of space within the existing facility also required replacement of the MCC in pieces utilizing the existing exterior cabinets.

VILLAGE OF UNION GROVE, WI
WATER SYSTEM EVALUATION

Baxter & Woodman developed a WaterGEMS Water model in order to identify and prioritize future water system projects. The creation of a WaterGEMS water model utilized existing WaterCAD Water model data along with existing water system GIS data. The WaterGEMS model was used to help to establish a procedure to make the capital improvements and operational modifications required to provide the Village with an abundant source of high quality water for future growth.

CONTACT
Mark Osmundsen
Director of Public Works
262-878-1818

ROLE
Prime

STATUS
Completed, 2013

One of the key uses of the water model was to complete a Water System Performance Evaluation – evaluation of how the different entities of the supply system are performing and what changes must be implemented for future conditions to improve operational efficiencies. The model was also used to perform an Extended Period Simulations (EPS). The EPS are very useful for identifying potential water quality concerns. Expected water age was tracked throughout the system under varying demand levels and control set points for a period of 10 days. This water age information will provide useful data for the Village to evaluate the chemical needs and capital improvements necessary to reduce water quality concerns in the system.

VILLAGE OF WILLIAMS BAY, WI
WATER SYSTEM MASTER PLAN

Baxter & Woodman provided engineering services for the recalibration of the Village's computer water model, including conducting fire flow testing and making adjustments to the model. A report was prepared that determined the remaining water capacity from the current supply and treatment system. A concept plan was provided to show how to control chlorine residuals in the distribution system affected by ammonia in the source water. Alternate methods for disposal of solids from the treatment system were investigated. A concept plan for future expansion of the supply and treatment system was also provided.

CONTACT
Jerry Mehring
Director of Public Works
262-245-2700

ROLE
Prime

STATUS
Completed, 2013

VILLAGE OF GLENVIEW, IL
WATER SYSTEM STRATEGIC PLAN

The Village asked Baxter & Woodman to assist with the development of a systematic approach for making capital improvements and operational modifications intended to meet the Village's water supply needs and optimize operations. The Village's primary concerns included meeting or exceeding water quality standards; ensuring reliable supply and service to its residents, businesses and potential new bulk customers; maintaining adequate pressures and fire flows; and improving the system efficiency and cost effectiveness.

CONTACT
Jerry Burke
Public Works Director
847-904-4525

ROLE
Prime

STATUS
Completed, 2013

This strategic plan was built, in part, on previously completed studies and included the following:

- Estimates of existing residential population, non-residential population equivalents and water demands.
- Updated projected population estimates based on available developable land and anticipated changes in existing land uses.
- In-field fire hydrant flow testing.
- Water system computer modeling work.
- Use of the water model to identify problem areas in the distribution system during a variety of demand conditions.
- Proposed operational changes intended to eliminate unnecessary pumping.
- Preventative maintenance recommendations and proposed means to reduce unaccounted for water quantities.
- Proposed means to resolve the West Lake Reservoir humidity problems.
- Recommendations for capital improvements and operational strategies based on results of water system modeling and alternatives analysis for future conditions. Estimates of capital costs and prioritization of the improvements were included.

9. ADDITIONAL REFERENCES

We encourage you to contact the additional references listed below to obtain their assessment of our services and satisfaction with our work.

VILLAGE OF WATERFORD, WISCONSIN	Rick Huening Public Works Supervisor 801 Ela Ave. Waterford, WI 53185 262-534-3980, ext. 322	**Relevant Projects:** Village Engineering Services Capital Improvement Plan & Update Lift Station Replacement Study Water System Needs Assessment & Update Water Main Relay Study Well 5 Water Reservoir
VILLAGE OF SOMERS, WISCONSIN	Bill Morris Village Administrator 7511 12th St. Somers, WI 53171 262-859-2822	**Relevant Projects:** Village Engineering Services Various Water Main Improvements Pike River Lift Station Electrical Investigation Sheridan Road Lift Station Water & Sewer Rate Study Water Diversion Application
VILLAGE OF WINDSOR, WISCONSIN	Tina Butteris Director of Finance 4084 Mueller Road DeForest, WI 53532 608-846-3854	**Relevant Projects:** Village Engineering Services Elevated Tank Repainting Booster Pumping Station Well No. 1 Reservoir and Booster Pump Station Various Water Main Improvements
CITY OF MILTON, WISCONSIN	Howard Robinson Public Works Director 710 South Janesville St. Milton, WI 53563 608-868-6914	**Relevant Projects:** City Engineering Services Well No. 2 Well House Various Water Main Improvements High Zone Booster Pump Station Water Master Plan

CITY OF WEST ALLIS, WISCONSIN
WATER UTILITY FACILITIES EVALUATION

BAXTER & WOODMAN, INC.
2017 HOURLY BILLING RATES AND EXPENSE ITEMS
FOR PROFESSIONAL SERVICES

EMPLOYEE CLASSIFICATION	HOURLY BILLING RATES
Principal	$180
Senior Engineer III to IV	$150 to $170
Senior Engineer I to II	$130 to $140
Engineer III to IV	$105 to $115
Engineer I to II	$85 to $95
Engineering Technician III to V	$110 to $140
Engineering Technician I to II	$60 to $100
Senior Geologist	$135
CAD / GIS / Survey Technician III to IV	$105 to $140
CAD / GIS / Survey Technician I to II	$90 to $95
Clerical I to II	$70
Support Manager	$160

Hourly rates for inspection services do not include any overtime.
The Engineer may adjust the hourly billing rate and out-of-pocket expenses on or about January 1 of each subsequent year and will send the new schedule to the Owner.
Hourly Billing Rates include direct labor and indirect overhead expenses, readiness to serve, and profit, and are for 8 hours/day and 40 hours/week regularly scheduled work hours.
Personal-owned vehicle Mileage Charges will be reimbursed at the rate set by the U.S. Internal Revenue Service.
Company-owned/leased vehicle usage will be reimbursed at a rate of $65.00 per diem or $32.50 per half diem.
Traffic Counters $50/day.
Miovision Traffic System usage will be reimbursed at a rate of $600.00 per diem and $24.00 per hour processing.
Sub-consultant costs will be reimbursed at their invoice costs plus 5%

CITY OF WEST ALLIS
INSURANCE REQUIREMENTS FOR CONSULTANTS

A. INSURANCE REQUIRED.

Consultants shall purchase and maintain for the duration of the contract as required by the City or by Law, insurance indemnifying against claims, suits, personal injury, bodily injury to persons, or damage to property which arises from, or in connection with the performance of the work hereunder by the Consultant. Some contracts may require Completed Operations, Professional Liability or other insurance beyond the contract term.

Consultant acknowledges that the insurance coverage and policy limits set forth in this Insurance Requirement section constitute the minimum amount of coverage required. Any insurance policy or other proceeds broader than or in excess of the specified limits and coverage required in this section, which are applicable to a given loss, shall be available to the City. The Insurance Requirements under this Contract shall be greater of (1) the minimum coverage and limits specified in the Contract or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named. It is agreed that these Insurance Requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required here. No representation is made that the minimum Insurance Requirements of this Contract are sufficient to cover the obligations of the Consultant under the Contract.

Any deductibles or self-insured retentions shall be identified to the City; those which exceed $10,000 must be declared to and approved by the City. City may require a review of the latest audited financial statements of the Consultant. At the option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, employees, agents and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defenses expenses.

All required insurance under this Contract is to be placed with insurers with a Best's rating of no less than A-VII. Said carriers to be admitted status with the State of Wisconsin, unless otherwise approved in advance by the City. City reserves the right to approve non-admitted carriers with a Best's rating of no less than AX.

Work shall not be commenced under the Contract until all insurance required under this paragraph has been obtained and evidence thereof in the form of certificates, with original endorsements effecting coverage, are filed with and approved by the City. The City reserves the right to require complete, certified copies of all required insurance policies at any such time. Copies of policies shall be provided by Consultant within 10 days of such request.

The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms approved by the City. For Worker's Compensation-related risks, only forms approved by the Insurance Commissioner are to be used.

Consultant shall include all subconsultants as insured's under its policies or shall furnish separate certificates and endorsements for each subconsultant. Consultant agrees to require in any subconsultant and other agreements to perform any operations under this Contract, or provide products or services in connection with this Contract (parties to such subcontracts and/or agreements collectively shall be referred to as "subconsultants"), that all Subconsultants comply with all of the provisions of this Contract, including the indemnity and insurance provisions to the extent they apply to the scope of the Subconsultant's operations and/or performance under this Contract. Subconsultants hired by Consultant agree to be bound to Consultant and City in the same manner and to the same extent as Consultant is bond to City under this Contract. No subconsultant shall be permitted to commence work until all required coverage has been obtained and certificates and endorsements thereof are filed with the City. A copy of the Indemnity and Insurance Requirements shall be furnished to the Subconsultants by Consultant upon request.

If any part of a loss is not covered because of the application of a deductible or retention, said loss shall be borne by the general Consultant and not the City. Failure to maintain the required insurance may result in termination of this Contract at the option of the City.

It is Consultant's responsibility to ensure its compliance with the Insurance Requirements of the Contract. Any actual or alleged failure on the part of the City to obtain proof of insurance required under the Contract shall not in any way be construed to be a waiver of any right or remedy of the City, in this or any regard.

B. GENERAL ENDORSEMENTS.

The protection afforded by the required insurance policies under this Contract shall include, but shall not be limited to, the following:

1. Occurrence Based Policies. All required Liability insurance under this Contract shall be written on an "occurrence" form, except separately approved Professional Liability Policies.

2. Representation of Coverage Adequacy. By requiring insurance for this Contract, City does not represent or warrant that coverage and limits will be adequate to protect the Consultant, subconsultant, their agents or any project engineer.

3. Cross-Liability Coverage. If the Consultant's liability policies do not contain the standard ISO separation of insured's provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

4. Cancellation. The insurer shall endeavor to give the Director of Public Works/City Engineer at least ten (10) days prior written notice of any suspension or cancellation of the policy, or any reduction in coverage or in limits. In addition, the Consultant shall immediately notify the Director of Public Works/City Engineer whenever it receives notice from the insurer that the policy has been cancelled or suspended or there has been a reduction in coverage or limits. Cancellation or suspension of the policy or reduction in coverage or limits shall

constitute a material breach and is grounds for immediate termination of the Contract. Upon notice to the Consultant by the City upon the City's learning of said breach, the Consultant shall immediately cease all Work on the Project.

5. Additional Insured's. The City, its officers (elected and appointed), employees, agents and volunteers must be named as additional insured's as their interests may appear on the Consultant's General Liability insurance policy. Additional insured status shall be endorsed onto the insurance policy by the appropriate ISO Endorsement Form approved by the City and executed by duly authorized agents of said carrier.

6. Primary Insurance. Consultant's insurance shall provide primary insurance to the City, to the exclusion of any other insurance or self-insurance programs the City may carry. Any insurance or self-insurance maintained by the City shall be excess of the Consultant's insurance and shall not contribute to it.

7. Waiver of Subrogation. Consultant waives all rights against the City, its officers, employees, agents and volunteers for recovery of damages to the extent these damages are covered by the insurance the Consultant is required to carry pursuant to this Contract.

8. Reporting. Failure to comply with any insurance policy reporting provisions shall not affect coverage provided to the City.

9. Cross Liability. The required insurance coverages shall apply separately to each insured against whom claim is made or suit brought, except with respect to the limits of the insurer's liability.

10. Indemnification. The policies shall contain an acknowledgement by the underwriters that, to the fullest extent permitted by law, the Consultant shall indemnify and save harmless the City against any and all claims resulting from the wrongful or negligent acts or omissions of the Consultant or other parties acting on its behalf under the Contract; and that the hold harmless assumption on

the part of the Consultant shall include all reasonable costs necessary to defend a lawsuit including actual reasonable attorney fees. The obligation to indemnify and defend the City as set forth herein shall survive the termination or completion of this Contract for the full period of time allowed by law. The parties agree that if any part of this indemnification provision is found to conflict with applicable laws, such part shall be unenforceable only insofar as it conflicts with said laws, and that this indemnification shall be judicially interpreted and rewritten to provide the broadest possible indemnification legally allowed and shall be legally binding upon Consultant.

C. MINIMUM LIMITS AND OTHER PROVISIONS.

1. WORKER'S COMPENSATION INSURANCE.

Workers Compensation Insurance:

Wisconsin statutory limits for all employees of the bidder to whom the award is made.

All subconsultants and materialmen shall furnish to the Consultant and the City certificates of similar insurance for all of their respective employees, unless such employees are covered by the protection afforded by the Consultant.

2. GENERAL LIABILITY INSURANCE.

a. Coverage. Coverages must include, but are not limited to the following: "Occurrence" Coverage Form must be as broad as Insurance Service Form (ISO) (form CG 00 01) and include the following:

- Premises and Operations
- Products and Completed Operations, applicable for at least three years following acceptance of the work
- Personal Injury with Employment Exclusion deleted
- Unlicensed Mobile Equipment
- Explosion, Collapse and Underground Hazard Coverages

- Blanket Contractual (Independent Consultant's Protective)
- Contractual Liability coverage at least as broad as coverage provided by the ISO CG 00 01 policy form must be included and shall not limit by any modification or endorsement, coverage for liabilities assumed by Consultant under this Contract.
- Broad Form Property Damage
- Contingent Coverage for Subconsultants
- Care, Custody and Control Coverages for City Owned or Purchased Materials at the Work Site

b. Minimum Limits of Liability:

Per Occurrence Limit:	$1,000,000
Policy Aggregate Limit:	$2,000,000
Personal Injury Limit:	$1,000,000
Fire Damage Limit:	$50,000
Medical Expense Limit:	$5,000

3. BUSINESS AUTOMOBILE LIABILITY INSURANCE.

a. Coverage. Coverage must be as broad as ISO CA 00 01 - Occurrence Form Code No. 1, "any auto" and include the following:
Comprehensive Coverage for all Owned, Non-Owned or Hired Motor Vehicles driven by the employees of the Consultant or Subconsultants, including vehicles and equipment owned by the City if used exclusively for the project.

Uninsured or Underinsured Motorists Liability Coverage at full policy limits.

Transportation by insured vehicles of pollutants or toxic wastes (as determined by the EPA) shall require a minimum of the Pollution Liability Endorsement (CA9948) and/or the Motor Carrier Act Endorsement (MCA90) to address damages and clean-up costs.

b. Minimum Limits of Liability:

Per Occurrence/Accident for Bodily Injury and Property Damage: $1,000,000

4. PROFESSIONAL LIABILITY/ERRORS & OMMISSIONS COVERAGE.

a. Coverage. Standard form; coverage provided on a claims – made basis with at least three years extended reporting period; to include all liability assumed by Consultant for the project. The minimum three year extension shall be for at least three years after all operations and/or performance under this Contract are complete, and additional claims-made coverage requirements apply as described below:
For any coverage that is provided on a claims-made form (which type of form is permitted only where specified above):

1. The retroactive date must be shown and must be before the date of the Contract, and before the beginning of any operations and/or performance related to this Contract;

2. Insurance must be maintained and Certificates of Insurance must be provided to the City for at three years after termination or completion of the Contract or completion of the contract work;

3. If coverage is cancelled or not-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the Contract, Consultant must purchase an extended reporting period for a minimum of three years after termination of this Contract or completion of contract work.

b. Minimum Limits of Liability: Minimum $1 Million (project specific).

5. UMBRELLA LIABILITY.

Five million dollars ($5,000,000) following form excess of the primary General Liability, Automobile Liability and Employers Liability Coverages. If excess or umbrella policies are used to meet the Insurance Requirements of this section, they shall provide coverage at least as broad as specified for the underlying coverages, and the full limits of the umbrella or excess coverage shall be available to the City. Such policy or policies shall include as insured's those covered under the underlying policies, including additional insured's, with a severability of interests provision applicable to the additional insured's. Such policy or policies shall contain, or be endorsed to contain, a provision that such coverage shall also apply on a primary and non-contributory basis to the City before the City's own primary liability policy or self-insurance shall be called upon to protect it as a named insured. Coverage shall apply on a "pay on behalf" basis.

IV. CONTRACT BONDS

After opening of bids, but before signing of contract, the bidder to whom award is made shall have executed, through a surety company authorized to do business in the state of Wisconsin and acceptable as surety to City, bonds in the form included in the contract documents for the faithful performance of the contract and payment for all work and labor performed and materials furnished to complete the work. The bonds shall be for the full amount of the contract and shall be adjusted to incorporate all extras, credits and change orders through final payment.

Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his Power of Attorney indicating the monetary limit of such power.

Bidder shall pay the cost of the bonds.

V. INTERPRETATIONS AND ADDENDA

All questions about the meaning or intent of the contract documents are to be directed to the Director of Public Works/City Engineer. Interpretations or clarifications considered necessary by the Director of Public Works/City Engineer in response to such questions will be issued by addenda mailed or delivered to all parties recorded by the Director of Public Works/City Engineer as having received proposal forms. Questions received less than ten (10) days prior to the date for opening of bids may not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Addenda may also be issued to modify the contract documents, as deemed advisable by the Board of Public Works or the Director of Public Works/City Engineer.

NON -DISCRIMINATION STATEMENT

The City of West Allis does not discriminate against individuals on the basis of race, color, religion, age, marital or veteran's status, sex, national origin, disability, or any other legally protected status in the admission or access to, or treatment or employment in, its services, programs or activities.

LIMITED ENGLISH PROFICIENCY STATEMENT

It is the policy of the City of West Allis to provide language access services to populations of persons with Limited English Proficiency (LEP) who are eligible to be served or likely to be directly affected by our programs. Such services will be focused on providing meaningful access to our programs, services and/or benefits.

CITY OF WEST ALLIS
WORK ORDER

TO: **BAXTER & WOODMAN, INC.**

DATE: **September __, 2017**

PROJECT: **Engineering Consulting Services to provide a comprehensive evaluation and report on the condition of the City's reservoir and booster pump station located at 1725 S. 96th Street and the pump station at 1981 S. 84th Street**

SUBJECT: Engineering Consultant Services

In accordance with Resolution No. 2017-0234 and the Agreement for Professional Services dated as of September __, 2017 (the "Agreement"), you are directed to proceed with work on the Project as outlined below:

Work: See attached Scope of Services dated August 25, 2017.

Estimate: $ 37,500.00

Schedule: Work to commence immediately. To be completed as part of the Basic Services under the Agreement.

This Work Order, including any attachments, is incorporated into the Agreement. All work defined in this Work Order and payment therefor shall be performed in accordance with the terms and conditions of the Agreement, unless otherwise modified herein. Any modification(s) of this Work Order is subject to approval and acceptance pursuant to the Agreement.

Issued:

CITY OF WEST ALLIS

By: _____
Michael Lewis, P.E.

Title: Director of Public Works/City Engineer

Date: 10/3/2017

Received and Approved:

BAXTER & WOODMAN, INC.

By _____
Louis D. Haussmann, PE

Title: Executive Vice President/COO

Date: September 13, 2017

ATTACHMENTS:
Scope of Services

Approved as to form this
2 day of ~~August~~ Oct., 2017.

_____
City Attorney

COMPTROLLER'S CERTIFICATE
Countersigned this 3rd day of ~~August~~ September, 2017 and I certify that the necessary funds have been provided to pay the liability that may be incurred by the City of West Allis under this Contract.

_____
Peggy Steeno, Director of Finance/Comptroller