



CITY OF WOOD DALE

PUBLIC NOTICE

IN ACCORDANCE WITH THE STATUTES OF THE STATE OF ILLINOIS AND THE ORDINANCES OF THE CITY OF WOOD DALE, NOTICE IS HEREBY GIVEN THAT THE CITY COUNCIL WILL CONTINUE ITS REGULAR STANDING COMMITTEE MEETINGS AT 7:30 P.M. ON THURSDAY, SEPTEMBER 28, 2023 IN THE COUNCIL CHAMBERS OF THE CITY HALL, 404 NORTH WOOD DALE ROAD, WOOD DALE, ILLINOIS, FOR THE PURPOSES SET FORTH IN THE FOLLOWING AGENDAS:

STANDING COMMITTEES OF THE CITY OF WOOD DALE, ILLINOIS SEPTEMBER 28, 2023

I. PUBLIC WORKS COMMITTEE

- A. Call to Order
- B. Roll Call
- C. Approval of Minutes of Meeting
 - i. September 14, 2023 Public Works Committee Minutes
- D. Report and Recommendation
 - i. Approval of a Professional Services Agreement between the City of Wood Dale and Baxter & Woodman for Central Avenue Phase III Engineering
 - ii. Approval of a Professional Services Agreement between the City of Wood Dale and Baxter & Woodman for Mittel Drive Phase I Engineering in an Amount Not to Exceed \$28,700
 - iii. Approval of a Professional Services Agreement between the City of Wood Dale and HR Green for Water Tower 1 Phase I Engineering in an Amount Not to Exceed \$45,975
- E. Items to be Considered at Future Meetings
 - i. FY 23-25 Road Program Engineering Amendment – October 12
- F. Adjournment

POSTED IN CITY HALL ON SEPTEMBER 22, 2023 AT 4:00 PM

LYNN CURIALE, CITY CLERK

BY: MAURA MONTALVO, DEPUTY CITY CLERK



PUBLIC WORKS
COMMITTEE MINUTES

Committee Date: September 14, 2023
Present: Alderman Art Woods, Alderman Curiale, Alderman Messina, Alderman Jakab, Alderman Ames, Alderman Artie Woods, Alderman Catalano
Absent: Alderman Susmarski
Also Present: Mayor Pulice, City Manager Mermuys, Director Lange, Director Springer, Director Wilson, Sgt. Evan Grant, City Clerk Curiale, Treasurer Porch
Meeting Convened at: 07:44

APPROVAL OF MINUTES:

Ald. Jakab made a motion, seconded by Ald. Messina, to approve the minutes of the August 10, 2023, meeting as presented. A voice vote was taken, with all members voting aye.

REPORT & RECOMMENDATION

- i. APPROVAL OF AN AGREEMENT BETWEEN THE CITY OF WOOD DALE AND SUPERIOR ROAD STRIPING, INC. FOR THE 2023 PAVEMENT MARKING PROGRAM IN AN AMOUNT NOT TO EXCEED \$26,305
- ii. APPROVAL OF A PROPOSAL FROM PERFORMANCE PIPELINING, INC. FOR THE ADDISON ROAD SANITARY SEWER CLEANING, TELEVISIONING AND LOCATING SERVICES IN AN AMOUNT NOT TO EXCEED \$33,160
- iii. ACCEPTANCE OF LETTER OF INTENT AND APPROVAL TO PROCEED WITH INVESTMENT GRADE AUDIT FROM VEREGY FOR THE ADVANCE METERING INFRASTRUCTURE AND LEAK DETECTION PROJECT

DISCUSSION:

There were no questions.

VOTE:

Ald. Jakab made a motion, seconded by Ald Ames, to Approve an agreement between the City of Wood Dale and Superior Road Striping, Inc. for the 2023 Pavement Marking Program in an Amount not to Exceed \$26,305. A roll call vote was taken, with the following results:

Ayes: Alderman Art Woods, Alderman Curiale, Alderman Messina, Alderman Jakab, Alderman Ames, Alderman Artie Woods, Alderman Catalano

Nays: None
Abstained: None
Motion: Carried

DISCUSSION:

The Mayor asked if he was reading that they are going to be checking if there is anything in the way of the pipeline? Director Lange, we have an idea of all the underground data that is in the GIS, but we don't have the elevation data, and this is part of the preparatory work for the Water Main Replacement Project. So, as we are planning and designing that we need to know if there will be any other utility conflicts with a locator system that sends a transmitter through the pipe that gathers not only lateral data, but also elevation data. After that we should know if there will be conflicts with utility locations. Alderman Jakab asked if when this data is gathered if it will be added to the GIS System? Director Lange stated that the information in fact will be added to the GIS data.

VOTE:

Ald. Catalano made a motion, seconded by Ald Ames, to Approve a Proposal from Performance Pipelining, Inc. for the Addison Road Sanitary Sewer Cleaning, Televising and Locating Services in an Amount Not to Exceed \$33,160. A roll call vote was taken, with the following results:

Ayes: Alderman Art Woods, Alderman Curiale, Alderman Messina, Alderman Jakab, Alderman Ames, Alderman Artie Woods, Alderman Catalano
Nays: None
Abstained: None
Motion: Carried

DISCUSSION:

Director Lange introduced the staff from Veregy; Erin Perry, Danielle Melone and John Lambert and they gave their presentation. Danielle began by thanking the Council for the opportunity to present some potential opportunities to upgrade some of your water technologies to be more efficient. What we intend to cover tonight we will walk through your current water systems, and to show some different options that the city has to upgrade the technologies to be more efficient, to cut down on some water loss, and to help detect water leaks. We will go through the process which the next step is the investment grade audit process, which you have before you the letter of intent to get approval for today to move to that step, and the performance contracting process to get through completion. We have prepared some preliminary financial analysis based on your actual data that we've been working with Alan and Brad on compiling over the last couple of months. We will also go

over different financial models to show you what the whole project will look like over the life of the expected project, which is 20 years.

Danielle gave a quick overview of our current water system. Wood Dale has approximately 5000 meters that Public Works reads on a monthly basis. What they currently do is drive trucks throughout the town to collect those reads, which takes about a day-and-a-half to retrieve that information. They then must take that data and download it to your billing software system, which is a non-automated process. The Utilities Crew replaces about 25 meters annually, and usually only when they malfunction, or they stop. There is currently no replacement program in place. There is also no existing management for residents and businesses to detect leaks, or how to manage their consumption data, which the technology exists now to allow your residents to be able to do that. The City of Wood Dale estimates their non-revenue water to be greater than 17 percent. The IDNR, (Illinois Department of Natural Resources), goal, or percentage, is that they expect municipalities to 8 percent and lower. So, the projects that we're talking about today directly affect 17 percent to get it closer to that 8 percent, or below. The City of Wood Dale spends around \$20,000 annually on third party lead detection studies to detect leaks, and the city currently is only estimating at this point and the next stage will get more detailed. Currently the city is losing approximately about \$127,000 to \$325,000 in annual revenues and what it is based on is your existing meter accuracy percentage to be performing between 90 and 95 percent accurate. We will touch on this again on the revenue side of the presentation.

Danielle then went over some reasons that you would want to go over to the new meters and automated system. The new system will reduce that non-revenue water percentage, it will reduce your operational needs so you will not have to have staff having to drive trucks around town to get readings, and it will go straight to your billing utility clerks. We will improve service to your residents by providing a portal that your resident can get on and track their usage and their consumption data. Alderman Messina had a question about if the system will work with our current system Tyler that we just spent a lot of money on? Will it integrate with our existing platform? Danielle states that the two systems can integrate. Mr. Wilson said that the system that you are looking at right now cannot integrate or work until we have the meter infrastructure. Erin Perry stated that you cannot link the two portals, but you can have links attached to jump to the other program. Alderman Messina stated just as long as it can be redirected. Erin stated, yes. Alderman Jakab inquired that Bensenville has a program called Aqua Hawk, and when usage gets to be close to what is his normal usage, they will get a text alerting them. Will this program have the capability of doing that? Mr. Wilson stated that there are several programs like that will be available to the residents. Alderman Woods inquired if this means that Tyler would go away? Mr. Wilson stated that Tyler is here to stay.

Danielle then moved onto the improved accuracy part of her presentation. The one part she talked about is the leak detection location. With the new permanent detection system, we are able to correlate leaks down to within three feet of where the leak is. So, the Utilities Crew will come in and they will look on the portal, and it will have a red dot on there and the sensor will locate the leak and deploy a staff member to the exact location. The detection will decrease water leaks and loss of revenue, there will be less expenses on repairs, and will help so you won't have to raise rates on the residents. Alderman Ames inquired if you have to replace 25 meters a year how much do they cost and how old are they at the time of replacement? Director Lange, the cost of the actual meters themselves varies depending on the size, and then you take staff time and overhead I don't have the exact costs on hand, but I can get them for you. As for the age of the meters they last anywhere from 10 to fifteen years. Alderman would this specifically be on city property? Director Lange said the distribution leak detection system would be on the actual city infrastructure of the water mains themselves. There is a leak detection component to the metering aspect of things where the meters can sense a continuous usage and notify the resident of the city that there is a potential leak inside of your home. Alderman Catalano asked how much is the estimated cost savings to the city? Danielle stated that it will be coming up in the presentation.

Danielle then gave an overview of how far technology has come in the field in recent years. The meters that are available on the market now have come a long way. They carry pressure and temperature readings along with instant leak and tamper detection. They have a 20-year life cycle, and accuracy also has a 20-year guarantee tied to it. They have built in meter alarms which are carried through and our communicated through the system to the utility department, so it's instantaneous. You don't have to wait until you get your next bill to know that something is wrong. Alderman Jakab wanted to know if there were a system that would let someone at the home know if there is a problem, or then does it let the city know and they contact the resident? It depends on the specific alarm, but the city will be alerted immediately regardless of what the alarm is, but depending on the alarm certain alarm go to the resident such as a water leak and that would be something that you would be alerted about. Mr. Wilson said that the alerts will be forwarded to an employee, but if they are not in for a week it could go undetected for a period of time. We are going to determine who is going to be responsible for monitoring those alerts. We will have to create the management of the system. Alderman Jakab was concerned about how much staff time it would take after implementation? Danielle it would be basically your billing staff and customer service. It would be great if they looked at it every day, and if that is not possible as long as they are looking at it every week for about 2 to 4 hours that should be good. Director Lange stated that it will decrease the amount of Public Works time involved in meter reading and we can

just pull the final meter reading off the computer system, and it will decrease staff time in reference to changing out meters.

Danielle then displayed and explained the benefits of the portal to the residents. You can view and pay your bills, will give you recommendations on how to conserve water, there is a section that has the leak notification and resolutions, and you can go in and set your alerts, and you can also get a bill explainer that will show you how your bill came to a certain amount. Alderman Jakab brought up concerns about seniors or residents that don't have computers, or do not know how to work on a computer, will they get a text or something like a ComEd notification receive an automated call? Mr. Wilson, your question about the seniors and not having computers, that is where the notification from the city comes in and we will be reaching out to them. The only caveat that I would mention is if we don't always have a good number or e-mail address, we would then have to send a letter to them and that could take several days.

Danielle went onto the next step of the process, the Investment Grade Audit. The April through August 2023 part is already past the site visits, collect and analyze the information, consumption, water revenues, billing, data processes, and presented our findings to Public Works. September and October 2023 we are currently presenting to the Committee and Council. We will be at the October 5th meeting and if awarded the LOI, we will proceed and start our sessions with Public Works Staff, different Vendors, and open competitive bidding for technologies, select a manufacturer, order materials, and develop mailings and public outreach. This would all be completed by the end of November 2023. For the period December through February of 2024, we will begin to pull and test meters using a 3rd party for testing for accuracy, extensive meter, survey testing, start data integrations, compile cash flows, and deliver an Intergovernmental Agreement.

Danielle had mentioned a vendor symposium there are several vendors that could be partnered with we will bring them in and have them do their presentation for you so you can compare on a technical level and financial level the features and benefits of all of them. Alderman Jakab asked how are you ultimately paid I don't see and not to exceed numbers? Danielle, we will get into that further into the presentation. She then presented an example of the vendors' equipment and technologies that we will be dealing with. The mayor inquired if you have a failure rate on all of these companies, because one could be the cheapest, but they fail at 50% or something. Danielle, we are not going to bring anyone to the table that is not vetted and qualified, because our contracts have a performance aspect included. The mayor stated he was only asking because he thinks his water meter is charging him too much. Levity.

Danielle, after you pick the vendors and get contracts we can then begin to go and pick 70 meters and do random samplings and pull test meters. While we are doing that, we will be watching the cash flows that at the end of the day will give you a financial picture of what it looks like. For purposes for today these are very preliminary based on actual data from the city. There are 3 things that will go into that determination the vendor symposium, we will have to get your billing software baseline data and figure out your consumption data to be able to project those revenue increases. We will also work with staff to figure out your operational savings, what do you already have in your budget that we could pull forward to go towards the cost of the project these will go into the cash flow models. Alderman Messina inquired that there will an initial capital investment up front and then there will be a recurring subscription model essentially where we would have a renewal every year would that be with that company or with yours? That would be with the vendor not us, and we just want to give you a full financial look at this model over the life of the equipment and we will get to the cash flow where it shows year over year and what you are going to pay to who. This model will also include the approved water rates and include financing of an assumed rate of 4.25% at a 20-year debt service.

Danielle then went over the cashflow summary. Looking at your first year estimated revenue increases in the first year are at 92% of the existing accuracy of your current meter population that is estimated to be about \$243,000, over 20 years you are looking at about 10 million. Your estimated operational savings, and I think it could be a low number, but over a year \$100,000, and over 20 years would be 2.6 million, so your total program benefits is \$343,00 in year one, and it's \$12,000,000 over the life of the equipment. The next aspect is the operational fees which would cover those hosting and maintenance, the measurement and verification of that portal is \$48,461 over 20 years you are looking at \$1.2 million and the estimated upfront project cost is \$5.25 million. We also included the financing at the %4.25 rate, which is going to add \$2.648 million tot eh cost, so you are looking at about \$7.8 million total, and then adding in those ongoing costs you are looking at a \$9 million dollar project over 20 years. In year 7, which will be a positive cash flow of \$24,063, by year 20 you will find a net benefit of \$3,710,569.

Alderman Jakab asked Director Wilson since this wasn't in our budget how are we going to pay for al of this if we move forward? Director Wilson, I guess this is as we're finding some portion of the 17% that we're effectively subsidizing right now that's what is going to help pay for this program, so if you look at the annual program benefit, so that is what we are expecting to pick up in the annual water increases, for the accountability of the meters, and the savings from the operations and maintenance. So, in the first year we're knocking out the budget for meters, and the budget for leak detections because that is going to be in the ground, we're looking at the overtime that we have today along with standby and callback

pay. If you compare that to the total program costs the first year is \$430,000 and if you look at the annual cash flow that would be effectively what the programs would net out to each year. So, the first year the cost of the program, based on the presumptions they currently have, would only cost the city \$85,000 because we are expecting to pick up \$340,000, we're going to spend \$430,000 so that's where that \$86,000 comes in. Even after the finance investment of our first-year cost by the time you get to the fifth year theoretically we are going to be generating more and increase revenue and savings that the program is costing. Mayor inquired of Director Wilson about the annual benefits program, in year one it shows \$343,000 profit and year 7 \$560,000 the question is we are going to be saving \$343,000 because we are not losing the 17%, and if that the case how do we jump up another \$200,000 plus in year 7? Director Wilson the annual revenue increase that's what we're projecting to collect on the meter accuracy. Danielle, this only takes into account the savings for the meters, it does not include automating your services or eliminating your leaks. Alderman Messina wanted to point out the money that the city would be saving, and the increased service that would benefit our residents. Also, he inquired if after we find out reality and the costs, can we then say we just can't justify this? Danielle says that currently we are only asking for a letter of intent to enter into the audit agreement at this time. We would figure out all the testing and get your actual percentages, and if you decide you don't want to do this, there is a break fee of \$50,000.

At this time Alderman Messina made a motion to move forward with the investment grade audit.

VOTE:

Ald. Catalano made a motion, seconded by Ald Ames, for the Acceptance of Letter of Intent and Approval to proceed with investment Grade Audit form Veregy for the Advance Metering Infrastructure and Leak Detection Project. A roll call vote was taken, with the following results:

Ayes:	Alderman Art Woods, Alderman Curiale, Alderman Messina, Alderman Jakab, Alderman Ames, Alderman Artie Woods, Alderman Catalano.
Nays:	None
Abstained:	None
Motion:	Carried

ITEMS TO BE CONSIDERED AT FUTURE MEETINGS:

- Tower 1 Phase 1 Engineering – September 28



-
- Central Avenue Phase III Engineering – September 28

ADJOURNMENT:

Ald. Jakab made a motion, seconded by Ald. Ames, to adjourn the meeting at 8:59 p.m. Upon a voice vote, the motion was carried unanimously.

Minutes taken by Julie Szabo



REQUEST FOR COMMITTEE ACTION

Referred to Committee: September 28, 2023
Subject: Central Ave Phase III Engineering
Staff Contact: Alan Lange, Public Works Director
Department: Public Works

TITLE: Approval of a Professional Services Agreement between the City of Wood Dale and Baxter & Woodman for Central Avenue Phase III Engineering

RECOMMENDATION:

Staff Recommends Approval of a Professional Services Agreement between the City of Wood Dale and Baxter & Woodman for Central Avenue Phase III Engineering.

BACKGROUND:

Baxter & Woodman has previously submitted an application for federal Surface Transportation Funding for the resurfacing of Central Avenue between Foster Avenue and S Thorndale Avenue on the City's behalf. The project was awarded funding for FFY 2024 (October 1, 2023-September 30 2024) and Baxter & Woodman has completed Phase I & II Engineering. As Phase III Engineering (construction oversight services) is eligible for funding reimbursement through the program, IDOT requires that local agencies follow the Qualifications Based Selection process where firms submit their qualifications without fee proposals. Six proposals were received and reviewed by the RFP Steering Committee. Firms were rated based on the following five categories:

1. Technical approach to the project and project understanding (25%)
2. Firms experience and key personnel on similar projects (25%)
3. Specialized expertise as it relates to the project (10%)
4. Staff capabilities (10%)
5. Past performance on projects of similar scope (30%)

The recommendation was made to award the project to Baxter & Woodman based in large part on their technical expertise with the project, and their past performance on other STP funded projects for the City including Foster Avenue resurfacing.

ANALYSIS:

Per the QBS process, proposals were submitted without fees. After approval of the firm selection by the Public Works Committee, staff will negotiate the fees with the selected firm and submit the draft agreement to IDOT for review and comment. The final draft will then be brought back to the Council for final approval. If the City is unable to agree with the selected firm on the scope and/or fee for the project, the City has the option to drop negotiations and continue the process with the next highest ranked consultant.

DOCUMENTS ATTACHED

- ✓ Baxter & Woodman Proposal
- ✓ Firm Rankings

September 1, 2023

Wendy Bednarz
Public Works Management Analyst
City of Wood Dale
790 N. Central Avenue
Wood Dale, IL 60191

Subject: City of Wood Dale - Phase III Engineering For Central Avenue Resurfacing

Dear Ms. Bednarz:

As part of the City of Wood Dale's diligent efforts in street maintenance, the City is seeking professional services from a qualified firm to provide construction engineering services for the street resurfacing of Central Avenue between Foster Avenue and South Thorndale Avenue. Baxter & Woodman's long history with the City, in addition to our extensive municipal engineering and pavement rehabilitation expertise, will produce cost-effective, longer lasting pavements. We will provide an experienced construction team that understands the expectations of the City and its residents. The City will benefit from our:

Experience That Delivers - In addition to completing the original design for this project, Baxter & Woodman completed the City's first formal street sufficiency study (SSS) in 2010, with the most recent in 2019, and we are currently working on the FY21 and FY22 road projects. Our in-depth knowledge of the City's transportation network will allow our team to hit the ground running.

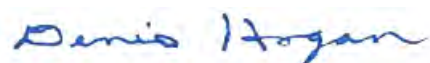
Robust Public Outreach - Our experienced team recognizes the value of open communication and understands the expectations of the City and its residents for roadway improvement projects. We will work with you to create an outreach strategy that builds public consensus, promotes the City's dedication to building a better community, and keeps your projects moving forward.

Federal Aid Experts - Our team has strong knowledge and familiarity the rules and regulations for a wide range of federal and local funding and grant opportunities. Project Manager Anand Sampath, PE and Resident Engineer Matt Gurke have a strong understanding of the STP documentation requirements and will deliver a successful project for the City.

We are excited to help the City continue implementing its pavement management plan by providing construction engineering services for the Central Avenue Resurfacing project. If you have any questions or need additional information during your review of our submittal, please contact Project Manager Anand Sampath, PE at (815) 444-4484 or email asampath@baxterwoodman.com. Baxter & Woodman acknowledges the receipt of Addendum 1.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS



Denis Hogan, PE
Client Manager



Anand Sampath, PE
Project Manager

Phase III Engineering for Central Avenue Resurfacing

About The Firm - 77 Years of Engineering Excellence

Founded in 1946, Baxter & Woodman, Inc. provides consulting engineering and technology services to more than 500 municipalities, state agencies, county governments, and sanitary districts throughout Illinois, Wisconsin, Florida, and Texas. Dedicated to promoting a sustainable future, our staff of more than 410 talented engineers, surveyors, technicians, and support personnel incorporate innovative techniques along with tried and true processes. With 15 regional offices providing our clients with local and responsive service, the strength of our team comes from the cohesive and cooperative work effort gained from having expertise in numerous disciplines.



Officers of Company

The firm is governed by a Board of Directors who are elected annually by the shareholders. The current board consists of John V. Ambrose, PE (President & CEO), Louis D. Haussmann, PE, PTOE, PTP (Executive Vice President & COO), Derek J. Wold, PE, BCEE (Executive Vice President), Rebecca Travis, PE, ENV SP (Executive Vice President), Sean E. O'Dell, PE (Executive Vice President), and Michael A. Kurzy, PE (Executive Vice President).

Annual Volume of Similar Work & Current Capacity

Baxter & Woodman is committed to serving our clients, and we carefully monitor the current and projected workload for each of our employees. At Baxter & Woodman, 20% of our annual work is construction related contracts. Based on both current and projected project workloads, our key and support staff will have adequate time and the necessary resources available to serve the City. We are confident that we will provide you with successful, efficient, and cost-effective engineering services.

Pending Litigation

As a large regional consulting engineering firm providing services in four states, Baxter & Woodman, in the course of our business, occasionally becomes involved as a party in claims, disputes, or litigation. However, we can affirm that there is no pending or threatened claim, dispute, or litigation which could reasonably be anticipated to have an adverse impact on our financial or professional ability to perform the services contemplated by this proposal.

Name & Location	Nature of Claim	Date	Resolution of Claim/How Resolved	Case; County; State	Insurance
Steven W. Becker, Thomas J. Becker, and Jeffrey C. Becker vs. Possibility Place Nursery, Inc., Connor B. Shaw, III; Tristan Shaw; Kelsay Shaw; Shaw Family Dec Trust; Saw Family Trust; County of Will; Will County Land Use Department; Tim Mack; Greg Ratajczak; Brian Radner; Nicole Roedl; Scott Killinger; Baxter & Woodman, Inc.; Donald Wauthier; and Berns, Clancy and Associates, P.C.	Land dispute between two property owners.	2022	Baxter & Woodman submitted motion to dismiss.	22 CV 3875; United States District Court, Northern District of Illinois	Paula Dixon; Holmes Murphy; 309-282-3901
Cheryl Brown vs. Village of LaGrange, LaGrange Elementary School District 102, Board of Education of LaGrange School District 102, Commonwealth Edison Company d/b/a COMED, an Illinois corporation, Triggs Construction, Inc., Lindahl Brothers, Inc., Baxter & Woodman, Inc.	Pedestrian tripped on sign post outside of right-of-way/on private property.	2022	Case in discovery.	2021 L 007195; Circuit Court, Cook County, IL	Paula Dixon; Holmes Murphy; 309-282-3901
Raymond Miller vs. Len Cox & Sons; Baxter & Woodman; PT Ferro Co	Bicyclist fell in construction zone.	2020	Motion to Dismiss denied. Depositions ongoing.	2018 L 3422, 12th Judicial Circuit Court, Will County, IL	Margie Donnell; Risk Strategies; 847-513-6616

Similar Projects

City of Wood Dale, IL

FY20-21 and FY21-22 Street Improvements

Baxter & Woodman provided design and construction engineering services for the City's FY20-21 and FY21-22 Street Improvements. The streets chosen were recommended in the Street Sufficiency Study completed by Baxter & Woodman for the City in 2019.

To stretch the City's budget dollars, Baxter & Woodman suggested the City seek Federal Aid funding for two of the streets scheduled for improvement, Central Avenue and Foster Avenue. In parallel with the STP funding application, we completed preliminary engineering for both projects to capture additional project scoring points. Because of the additional "project readiness" points, both streets were selected to receive a total of \$886,000 in STP Federal funding, which allowed the City to improve additional streets due to the cost savings.

Both street improvement programs consisted of curb and driveway repair, ADA ramp replacement, and pavement resurfacing or reconstruction.

SERVICES

- Phase I, II, III Engineering
- Local & Federal Funding
- Pavement Resurfacing/ Reconstruction
- ADA Ramp Replacement
- Secured STP Funding

COMPLETED

Street Improvement Program -
2020 and 2021
Foster Avenue - 2022
Central Avenue - 2024 (est.)

City of Wood Dale, IL

Mill Road Surface Transportation Program & Community Development Block Grant Improvements

Baxter & Woodman previously completed a water system study for Wood Dale, identifying the water main on Mill Road as requiring replacement and upsizing due to numerous breaks and to provide better pressure in the system on the west side of the City. To help fund the water main improvements, the City secured Community Development Block Grant (CDBG) funding, and Baxter & Woodman helped secure Federal Funding through the Surface Transportation Program (STP). Both funding sources (STP and CDBG) were combined to significantly defray the cost for the City of the much-needed roadway and infrastructure improvements.

During the design phase, pavement cores revealed unusually thick HMA pavement on Mill Road. This threatened to significantly increase the restoration cost of the water main since it needed to be located in the existing pavement. The road improvements included milling, patching, and resurfacing the road, as well as ADA sidewalk ramp improvements and curb and gutter and drainage repairs.

The project required reviews and approvals from IDOT, IEPA, and DuPage County. Because of the different funding sources and different types of work, the project was constructed under two separate contracts. The water main project was awarded at 15% under the engineer's estimate and completed in July 2016 under the awarded contract value. The road project was bid on the April State letting, and the low bid was 19% under the engineer's estimate.

SERVICES

- Phase I, II, and III
- STP & CDBG Funding
- Roadway Resurfacing & Water Main Replacement Design and Construction
- Coordination with DuPage County

COMPLETED

2016

Village of Orland Park, IL

Annual Road Resurfacing Program

Baxter & Woodman has provided construction observation services for the Village of Orland Park’s annual road resurfacing program since 2015. The Village utilizes local funds for the annual resurfacing programs, and the programs have ranged up to \$5.5M in construction cost. Construction is typically performed at an accelerated pace throughout multiple areas in town in order to complete the improvements in a single season.

The Village develops the road program plans and specifications in-house. Baxter & Woodman performs construction layout in accordance with the estimated pay item quantities and Village budget. Through the years, the Village has relied on Baxter & Woodman’s feedback to improve the quality of subsequent programs during the planning phase. The project involves diligent communication and coordination efforts between Baxter & Woodman, contractors, residents, business owners, and the Village.

The improvements include hot-mix asphalt surface removal, full-depth pavement removal, pavement patching, spot curb and gutter removal and replacement, sidewalk removal and replacement, preparation of aggregate base, hot-mix asphalt binder and surface course, pipe underdrain installation, reconstruction and adjustment of drainage structures, sidewalk slab raising, shotcrete curb and gutter repairs, and parkway restoration.

SERVICES

- Hot-Mix Asphalt Surface Removal
- Full-Depth Pavement Removal
- Pavement Patching
- Spot Curb & Gutter Removal/ Replacement
- Sidewalk Removal/ Replacement
- Pipe Underdrain Installation
- Parkway Restoration

COMPLETED
2015 - Ongoing

References

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

Nick Christie, PE
Assistant Director of Public Works
Village of Park Forest
350 Victory Drive
Park Forest, IL 60466
708-503-7702
nchristie@vopf.com

Scott Threewitt, PE
Director of Public Works
Village of Plainfield
244010 W. Lockport Street
Plainfield, IL 60544
815-230-2037
sthreewitt@goplainfield.com

Rick Colby, PE
Director of Public Works
Village of La Grange
320 East Avenue
La Grange, IL 60525
708-579-2328
rcolby@lagrangeil.gov

Services Provided In-House

We offer a full range of municipal services from project inception to construction close-out. Baxter & Woodman provides planning, design, construction and technology services for water, wastewater, stormwater and transportation facilities for municipalities, counties and state agencies and more. Environmental, geographic information systems (GIS), water and wastewater operations, and advanced technology needs complement the firm's civil engineering expertise. All necessary engineering services are provided in-house with the exception of construction materials testing and geotechnical engineering.

Construction Services

A sharp focus on environmental awareness, cost-effective solutions, agency expertise, and sensitivity to community issues means Baxter & Woodman's construction and transportation projects bring value to our clients! From Vision Zero designs, shared-use bike/pedestrian paths, and roundabout designs to multi-lane highway and tollway reconstruction projects, we provide versatility to help clients meet their project goals.

Services Provided:

- Bidding Assistance
- Cost Estimating
- Contract Documentation
- Budget Control
- Contract Administration
- Grant/Funding Documentation
- Construction Observation
- Field Staking/Layout
- Contractor Payment Requests
- Change Orders
- Shop Drawing Reviews
- Record Drawings
- Warranty Work
- Social Media/Public Outreach
- Drone Aerials/Progress Videos

Construction

- Contract Management
- Documentation
- Field Staking & Layout
- Contractor Payment Requests
- Shop Drawing Reviews
- Record Drawings
- Operation & Maintenance Manuals

Infrastructure

- Water Mains
- Sanitary Sewers
- Force Mains/Transmission Mains
- Storm Sewers

Transportation

- Roadway Construction/Reconstruction
- Intersections
- Bridges
- Bicycle/Pedestrian Paths
- Parking Lots
- Lighting
- Streetscape Features & Furniture
- Landscaping & Signage
- Planning & Design
- Drainage
- Traffic Engineering
- Structural Engineering

Traffic Engineering

- Traffic Data Collection/Analysis
- Traffic Modeling
- Traffic Impact Studies
- Complete Streets
- Urban Design/Road Diets
- Traffic Calming
- Parking Demand Studies
- Traffic Signal Warrant Analysis
- Stop Control Warrant Analysis
- Origin Destination Studies
- Intersection Design Studies (IDS)
- Accident Analysis
- Railroad Quiet Zone Studies
- Traffic Signal System Design
- Intelligent Transportation Systems

Planning

- Funding Notifications/Applications
- Transportation Master Planning
- Corridor Master Plans
- ADA Transition Plans
- Pavement Management Plans
- Capital Improvement Plans
- Phase I (NEPA Processing) Studies

Development

- QA/QC for compliance with local, county and state ordinances and regulatory requirements

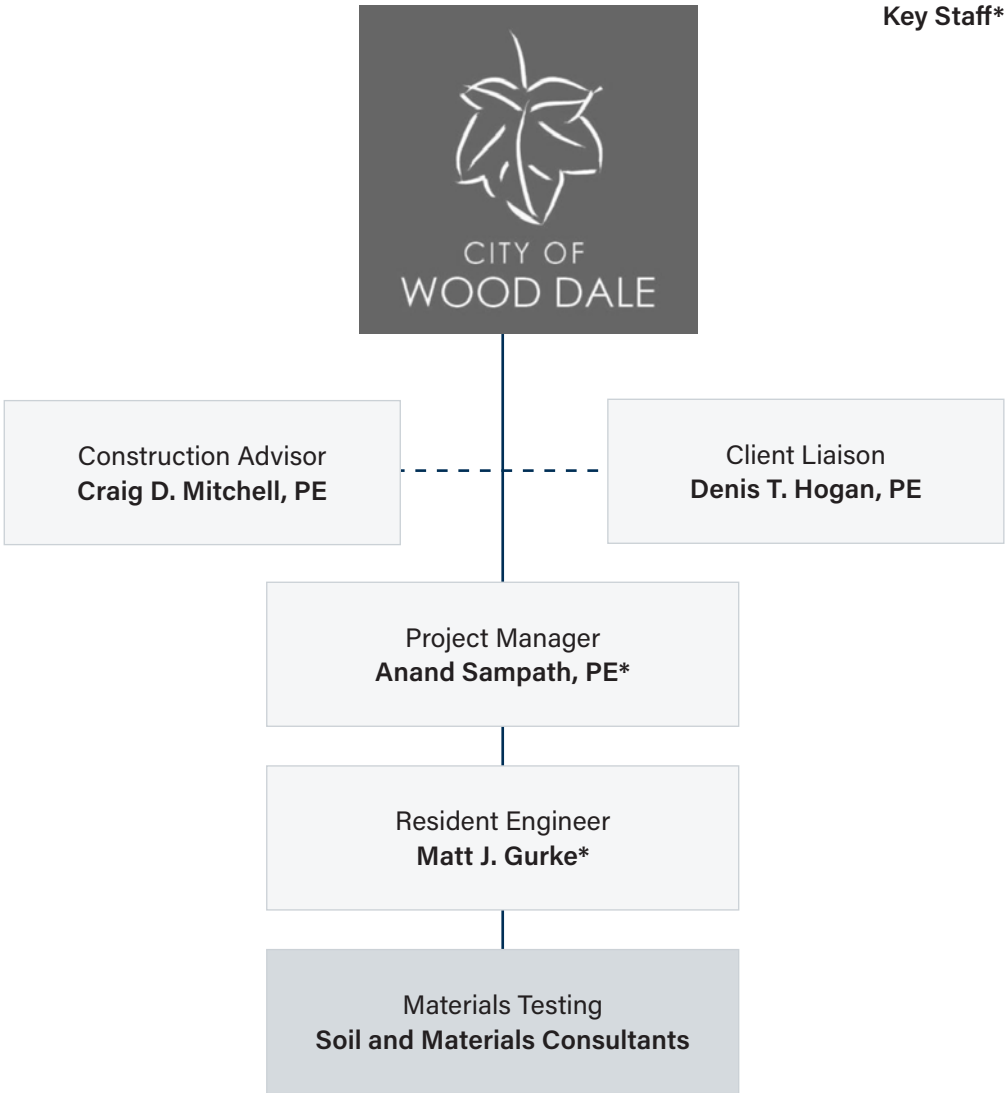
CONSTRUCTION TECHNOLOGY

Baxter & Woodman is modernizing construction technology to improve communication, data collection, record drawings, and project status reporting.

Our technology includes a GIS-based system to document interactions and track resolution progress, spatial technology equipment for photo support and quantity/deficiency tabulation, customized field apps for record drawings and CADD/GIS updates, industry-standard GIS data models for compatibility with Asset Management Systems, and state-of-the-art equipment for accurate capture of as-built assets.

Proposed Project Team

The success of this project relies upon our ability to collaborate with your staff and address your project goals. An organizational chart of the key project team members and a summary of their relevant qualifications have been included for your review.



Materials Testing (Subconsultant)
Soil & Material Consultants, Inc.



Located in Arlington Heights, Soil and Materials Consultants, Inc. (SMC) has been providing consulting civil engineering services in the soil and construction material fields since 1981. Their experienced staff is composed of engineers, geologists, engineering technicians, supervisory personnel, and support services. Offering full service on-site construction materials testing with IDOT certified technicians and laboratory testing, SMC specializes in geotechnical engineering, soil borings, pavement coring, and quality assurance of soil and construction materials.

■ Anand Sampath, PE

Project Manager

Anand has 14 years of experience providing Construction Engineering Inspection and Construction Materials Testing on complex projects for large agencies. His experience encompasses the full spectrum of construction management, including planning and design, with a focus on roadway and bridge construction. Anand is proficient in conducting periodic project records reviews, ensuring the adherence to standards for final project acceptance. Over the course of his career, he has successfully contributed to projects with construction costs exceeding \$2 Billion.

Wisconsin Department of Transportation* - IH 94 - STH 142 Mainline, Interchange & Ramps

Assistant Office Engineer & Materials Lead for this \$47 million project. Developed a new process to perform estimates. Led a team of five and oversaw entire end to end finals process. Performed inspection duties for all ancillary items and verified compliance with ADA standards. Ensured the quality of materials by performing the required department testing.

Illinois Department of Transportation* - IL 47 - IL 64 to Seavey RD

Engineer for the smart overlay project that consists of pavement patching, combination curb and gutter removal and replacement, hot-mix asphalt surface removal, resurfacing with hot-mix asphalt surface course, thermoplastic pavement marking and collateral work necessary to complete the improvement. The length of the improvement is 7.9 miles.

■ Matt J. Gurke

Resident Engineer

Matt assists with construction observation duties. His tasks have included construction observation, documentation of contract quantities, updating field books, completing Inspector Daily Reports, and specialized documentation required by each project's funding source. His excellent communication and time management skills are an asset on every project he is assigned.

Lake County Division of Transportation, IL - Weiland Road Improvements

Construction observation services for \$25 million STP-funded roadway improvements to two segments of Weiland Road totaling 2.25 miles. Involved reconstructing Weiland Road from a two-lane asphalt pavement to a five-lane asphalt pavement with two lanes in each direction and a center turn lane through a majority of the project. Additional improvements include an 8-foot asphalt multi-use path, a 5-foot concrete sidewalk, bicycle-friendly shoulder configuration, detention pond, culvert replacement, street lighting, and noise abatement wall.

Park Forest, IL - Shabbona Drive Reconstruction

Resident Engineer for a road reconstruction project. Project consisted of removing all the curb along the roadway, removing and replacing sidewalks, complying with ADA regulations, driveway repairs, elevation checks, storm sewer improvements, and a new hot-mix asphalt roadway.



Anand Sampath, PE

14 Years of Experience
Joined Firm in 2023

EDUCATION

M.S., Civil Engineering,
University of Iowa, 2010

B.S., Civil Engineering, Anna
University, India, 2008

REGISTRATIONS

Licensed Professional Engineer:
Illinois, Wisconsin, Texas



Matt J. Gurke

3 Years of Experience
Joined Firm in 2021

EDUCATION

B.S., Civil Engineering, Iowa
State University, 2020

CERTIFICATIONS

CMMS

IDOT Documentation of Contract
Quantities (21-18678)

IDOT Mixture Aggregate
Technician Course

IDOT Hot Mix Asphalt Level I
Technician

Project Understanding & Approach

Baxter & Woodman has a strong understanding of the City's Central Avenue Resurfacing project, gained from experience providing design engineering services for the project. By selecting the same firm for construction engineering services, the City will benefit from our team's seamless coordination with the design team, familiar faces who will confirm your staff is up to date on the project's progress, and proper documentation from our experienced Resident Engineers. We also submit the reimbursement forms to IDOT to secure reimbursement from the federal funds for the City.

The City's Central Avenue project is essential to preserving safe access to the surrounding homes. Success will require an experienced construction services team to effectively communicate and coordinate with the City of Wood Dale, Illinois Department of Transportation (IDOT), and adjacent property owners and motorists during the construction phase to address potential challenges early, promote positive public relations, and keep the schedule on track.

Baxter & Woodman's approach for delivering a successful project focuses on addressing potential challenges early, promoting a positive public response, and completing your project on schedule and within budget. Extensive public outreach and face-to-face interaction with local businesses, residents, and the community regarding construction impacts and project status will be critical to managing expectations and keeping your project moving forward.



Project Area Along Central Avenue



Current Conditions of Central Avenue

Experienced Team

Our team is composed of engineers with a wealth of experience with federal regulatory agencies and regulations. **Project Manager Anand Sampath, PE** has completed dozens of successful projects for the Illinois Department of Transportation, Illinois Tollway, and Wisconsin Department of Transportation. His familiarity and hands-on experience will prove invaluable for this resurfacing project.

Resident Engineer Matt Gurke is IDOT certified in six different categories. He excels at communicating with municipal officials and adjacent property owners, and he maintains a highly visible presence on the project site during construction to answer questions or concerns in a polite, professional manner. Matt is also adept at construction inspection and works through issues in a logical sequence. He has honed his documentation skills on these projects and has been mentored by Baxter & Woodman's senior staff.

Our team has represented various surrounding communities on Federally Funded projects, and they are well-respected by IDOT for their skills in project documentation. The team's extensive experience allows them to anticipate potential issues before they develop into problems. This proactive approach has proven to minimize project delays.

Working Together for Project Success

The key to our approach is collaborating with you and the contractor as a team. Construction Project Manager Anand Sampath, PE and Resident Engineer Matt Gurke are well-known and well-respected throughout the local construction community. Their reputation and experience will help keep the project moving through challenges that may develop. Progress will continue by meeting often, communicating effectively, and listening to concerns and addressing them in a timely fashion.

Baxter & Woodman will be the “central clearinghouse” for the project - starting with the pre-construction meeting, continuing through progress meetings, and ending with the final punch list close-out. Projects of this size require detailed documentation and adherence to specifications. Collecting, interpreting, and utilizing this information are tasks which Baxter & Woodman excels.

Key Construction Services Tasks

Additional key construction service tasks include:

1. **Traffic Control Monitoring** - Effective monitoring and reporting of traffic control throughout construction staging.
2. **Coordination of Local Services** - Confirm mail and trash services are not disrupted during construction.
3. **Consideration for Turning Radius and Storage Length for Semis** - Evaluate turning radii and storage lengths at intersecting roads to accommodate the maneuverability of semi-trucks.
4. **Coordination Between Longitudinal Joint Sealant and Paving Contractors** - Confirm joint sealing and paving activities are conducted on the same day to confirm optimal bonding and uniform pavement appearance.
5. **Subgrade Evaluation and Remediation** - Baxter & Woodman offers CCDD services on our construction projects and can identify unsuitable material for proper removal and replacement, as needed.
6. **CMMS Documentation** - Use of IDOT’s Project Management software, CMMS, to maintain daily diary entries, generate weekly reports, track measured quantities, change orders, and prepare and process pay estimates. The Resident Engineer will maintain organized documents for successful project audits.
7. **Ongoing Communication** - Communication is key to project success. The City will receive regular updates from our construction staff with pertinent project details, including general comments, anticipated progress, and a breakdown of budget and schedule details.



Current Conditions of Central Avenue

PROJECT STATUS COMMUNICATION UPDATES

Baxter & Woodman uses a robust Project Status Communication Tool to provide our clients a detailed overview of the status of their project. Each update includes general comments, anticipated progress, and a breakdown of the budget and schedule details.

BUDGET DETAILS			
Milestone Name	Budgeted	Spent	% Budget Spent
Construction Engineering	\$47,XXX	\$47,XXX	100%
Change Orders	\$0	\$0	0%
Total	\$47,XXX	\$47,XXX	100%
Remaining to complete project	\$0,XXX	\$0,XXX	0%

SCHEDULE DETAILS			
Milestone Name	Initial Due Date	Actual Completion Date	Status
Water System Improvements - Kick-Off Meeting	2/13/2019	2/13/2019	Complete
Commencement Date - Design and Engineering	3/13/2019	3/13/2019	Complete
Project - Kick-Off Meeting	3/27/2019	3/27/2019	Complete
Wall No. 8 - Finalize Contract Documents	3/13/2019	3/13/2019	Complete

Scoring Rubric for Request for Qualifications (RFQ) for Phase III Engineering for Central Avenue Resurfacing

Raw Scores							
Criteria	Points	B&W Inc	Robinson	Thomas	Clark Dietz	ERA	Gewalt
Technical Approach	1-10	9	8	8	7	6	8
Firm Experience	1-10	10	9	8	7	8	8
Specialized Expertise	1-10	8	8	7	7	6	7
Staff Capabilities	1-10	10	10	9	7	7	7
Past Performance	1-10	9	8	7	6	7	6
Total	50	46	43	39	34	34	36

Weighted Scores							
Criteria	Weight	B&W Inc	Robinson	Thomas	Clark Dietz	ERA	Gewalt
Technical Approach	25%	22.5%	20%	20%	17.5%	15%	20%
Firm Experience	25%	25%	22.5%	20%	17.5%	20%	20%
Specialized Expertise	10%	8%	8%	7%	7%	6%	7%
Staff Capabilities	10%	10%	10%	9%	7%	7%	7%
Past Performance	30%	27%	24%	21%	18%	21%	18%
Total	100%	92.5%	84.5%	77%	67%	69%	72%

A scoring rubric of 1-10 was used for each category. Both raw scores and weighed scores have been included.

Submittals were received from Baxter and Woodman Inc, Clark Dietz Inc, Engineering Resource Associates, Gewalt Hamilton Associates Inc, Robinson Engineering, and Thomas Engineering Group. The top three submittals were Baxter and Woodman Inc., Robinson Engineering and Thompson Engineering Group.

The RFQ was sent to the City of Wood Dale's list of qualified engineers and posted on the City's website (www.wooddale.com) on July 31, 2023. Submittals were due on September 1, 2023.



REQUEST FOR COMMITTEE ACTION

Referred to Committee: September 28, 2023
Subject: Mittel Ave Phase I Engineering
Staff Contact: Alan Lange, Public Works Director
Department: Public Works

TITLE: Approval of a Professional Services Agreement between the City of Wood Dale and Baxter & Woodman for Mittel Drive Phase I Engineering in an Amount Not to Exceed \$28,700

RECOMMENDATION:

Staff Recommends Approval of a Professional Services Agreement between the City of Wood Dale and Baxter & Woodman for Mittel Drive Phase I Engineering in an Amount Not to Exceed \$28,700.

BACKGROUND:

As discussed during the Strategic Planning session, the City desires to obtain federal Surface Transportation Program funding for Mittel Drive. Mittel Drive is one of the few remaining STP-eligible segments within the City which has not been or is not planned to be resurfaced in the near future. The next call for projects is open October-December 2023. Baxter & Woodman has had success with STP applications in the past for the City, having secured funding for both Central Avenue and Foster Avenue. Having Phase I Engineering in progress will result in a higher score on the application.

ANALYSIS:

This project was unfunded in the CIP; however, it is anticipated that the current fiscal year's road program will come in under the awarded amount to offset some of the cost. There are also funds available in the Public Works Administration operating budget for engineering services.

DOCUMENTS ATTACHED

✓ Baxter & Woodman Proposal

September 14, 2023

Mr. Alan Lange
Director of Public Works
City of Wood Dale
404 N. Wood Dale Road
Wood Dale, IL 60191

Subject: City of Wood Dale – Mittel Drive

Dear Alan:

Baxter & Woodman, Inc. is pleased to have the opportunity to submit a proposal for the Phase I engineering and STP application of Mittel Drive from N Wood Dale Road to Devon Avenue.

Project Understanding

The 8,500 ft (1.6 mi) total project length includes street resurfacing, driveway repair, ADA ramp repairs, pavement markings, utility adjustments, and restoration.

Complete Phase I preliminary engineering services in accordance with Illinois Department of Transportation (IDOT) procedures for Federal Aid Projects. The services include coordination with IDOT and the DuPage Mayors and Managers Council (DMMC), completing Phase I documentation processing the project as a Local Agency Functional Overlay (LAFO) project, and preparation of STP applications for the DMMC.

Completing the Phase I preliminary engineer services will maximize the available “project readiness” points for an STP application, administered by the DMMC. Final Phase II engineering will not be completed as part of this scope of services but will rather be completed closer to the STP programmed year for the project, if it is selected for funding.

Scope of Services

1. Early Coordination and Data Collection
 - a. *Data Collection:* Obtain, review, and evaluate the following information provided by the City/IDOT for use in design:
 - i. Utility Atlases
 - ii. Aerial Photography
 - iii. Maintenance and flooding records
 - iv. Crash Data (5 year)
 - v. ROW, GIS, and property data
 - b. *Field Evaluation:* Perform a field evaluation of the condition of existing pavements, drainage structures, sidewalk ramps, and curb and gutter. Estimate quantities of pavement repair. Observe and photograph the project area and immediate surroundings.
 - c. *Agency Coordination:* Coordinate with IDOT and DMMC to identify and define requirements of a potential STP Project. Prepare and maintain the Project Program Information (PPI) form.

2. Meetings - The following meetings are anticipated for this project:
 - a. City (1 total) (Pre-final)
 - b. IDOT (1) (Phase I Kickoff)
3. Geotechnical Report
 - a. *Pavement Cores and Soil Borings*: Utilize Soil and Material Consultants to take up to 17 pavement cores of the surface and base material for determining the composition of the existing pavement material within the project limits. Complete pH testing of the base material to include in Form LPC-662. Provide analysis and recommendations in a soils report in accordance with IDOT guidelines. Baxter & Woodman will provide a core location map prior to this work.
 - b. *Clean Construction or Demolition Debris (CCDD)*: CCDD testing and completion of Form LPC-663 is not included in this scope because it is anticipated that this project will generate small amounts of excavation haul off, which will be risk managed as non-special waste.
4. Project Development Report
 - a. *Phase I Documentation*: Prepare a Local Project Development Report for a State Approved Categorical Exclusion and submit the report to IDOT for review and approval. Preliminary, Pre-final, and Final submittals are anticipated. The report will generally include:
 - i. Typical Sections for Existing and Proposed
 - ii. Design Details
 - iii. Estimate of Cost
5. QA/QC – Perform in-house peer and milestone reviews by senior staff during project initiation, conceptual review, preliminary, pre-final, and final submittals. Provide ongoing reviews of permitting and utility coordination efforts.
6. STP Applications – Prepare and submit one STP application for Mittel Drive for review by the DMMC.
7. Manage Project – Plan, schedule, and control the activities that must be performed to complete the Project including budget, schedule, and scope. Coordinate with the City and project team to ensure the goals of the Project are achieved. Prepare and submit monthly invoices, and provide regular updates to the City.

The following items are not included within the scope of this Project, but can be provided as additional services to the contract:

- A. Permit Review Fees
- B. ROW Acquisition
- C. LPC-663 or PSI Soil Testing
- D. Final Plans, Specifications, Bidding Documents, Estimate of Cost

Deliverables: The following is a list of anticipated final deliverables to the City for this project:

- A. Electronic DGN, Geopak, Digital Photos, and GIS files used in project development including Plan, Field Notes, and Exhibits.

Electronic Record of Design files including agency correspondence, Estimates, Exhibits, and related electronic submittals (pdf or as appropriate). Baxter & Woodman utilize an electronic filing system in lieu of hard copies.

Project Fee

Our engineering fee for the above stated scope of services is based on our standard hourly billing rates for actual work time performed plus reimbursement of out-of-pocket expenses including travel, which in total will not exceed \$28,700.00. See below for a breakdown of the project fee.

<u>Task</u>	<u>Fee</u>
Early Coordination and Data Collection	\$5,740
Meetings	\$1,550
Geotechnical Investigation	\$3,890
Project Development Report	\$8,450
QA/QC	\$1,520
STP Application	\$4,920
Project Management	\$2,630
<hr/>	
Total	\$28,700

The attached Standard Terms and Conditions apply to this proposal. If you find this proposal acceptable, **please sign and return one copy for our files.**

We appreciate this opportunity to work with the City on this Project. Please feel free to call me if you have any questions.

Sincerely,

CITY OF WOOD DALE, ILLINOIS

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS

ACCEPTED BY: _____

TITLE: _____

DATE: _____

Jason J. Fluhr, PE
Vice President

JDM:jmc

Attachment

\\corp.baxwood.com\project\Azure\WDDL\2326103-Mittel Drive\Contracts\Work\2326103-Wood Dale-Mittel Drive.docx

STANDARD TERMS AND CONDITIONS

PLEASE READ THESE STANDARD TERMS AND CONDITIONS (“TERMS”) CAREFULLY BEFORE EXECUTING THE LETTER PROPOSAL PRESENTED BY BAXTER & WOODMAN, INC. (“BW”). BY EXECUTING THE LETTER PROPOSAL, OWNER AGREES TO BE BOUND BY THESE TERMS, THE PROVISIONS OF THE LETTER PROPOSAL, AND THE PROVISIONS OF ANY DOCUMENT REFERRING TO THESE TERMS OR THE LETTER PROPOSAL, ALL OF WHICH SHALL COLLECTIVELY CONSTITUTE THE “AGREEMENT”.

Owner’s Responsibility – Provide BW with all criteria and full information for the “Project”, which is generally otherwise identified in the Letter Proposal. BW will rely, without liability, on the accuracy and completeness of all information provided by the Owner (as defined in the Letter Proposal) including its consultants, contractors, specialty contractors, subcontractors, manufacturers, suppliers and publishers of technical standards (“Owner Affiliates”) without independently verifying that information. The Owner represents and warrants that all known hazardous materials on or beneath the site have been identified to BW. BW and their consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, unidentified or undisclosed hazardous materials unless this service is set forth in the Letter Proposal.

Schedule for Rendering Services - The agreed upon services shall be completed within a reasonable amount of time. If BW is hindered, delayed or prevented from performing the services as a result of any act or neglect of the Owner, any Owner Affiliate, or force majeure event, BW’s work shall be extended and the rates and amounts of BW’s compensation shall be equitably adjusted in a written instrument executed by all Parties.

Invoices and Payments - The fees to perform the proposed scope of services constitutes BW’s estimate to perform the agreed upon scope of services. Circumstances may dictate a change in scope, and if this occurs, an equitable adjustment in compensation and time shall be agreed upon by all Parties by written agreement. No service for which added compensation will be charged will be provided without first obtaining written authorization from the Owner. BW invoices shall be due and owing by Owner in accordance with the terms and provisions of the State of Illinois Local Government Prompt Payment Act (50 ILCS 505/1 et seq.).

Opinion of Probable Construction Costs - BW’s opinion of probable construction costs represents its reasonable judgment as a professional engineer. Owner acknowledges that BW has no control over construction costs or contractor’s methods of determining prices, or over competitive bidding, or market conditions. BW cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from BW’s opinion of probable construction costs.

Standards of Performance – (1) The standard of care for all services performed or furnished by BW will be the same care and skill ordinarily used by professionals practicing under similar circumstances, at the same time and in the same locality on similar projects. BW makes no warranties, express or implied, in connection with its services; (2) BW shall be responsible for the technical accuracy of its services and documents; (3) BW shall use reasonable care to comply with applicable laws, regulations, and Owner-mandated standards; (4) BW may employ such sub-consultants as BW deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objection by Owner; (5) BW shall not supervise, direct, control, or have authority over any contractors’ work, nor have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the site, nor for any failure of any contractor to comply with laws and regulations applicable to such contractor’s furnishing and performing of its work; (6) BW neither guarantees the performance of any contractor nor assumes responsibility for any contractor’s failure to furnish and perform the work in accordance with the contract documents; (7) BW is not acting as a municipal advisor as defined by the Dodd-Frank Act. BW shall not provide advice or have any responsibility for municipal financial products or securities; (8) BW is not responsible for the acts or omissions of any contractor, subcontractor, or supplier, or any of their agents or employees or any other person at the site or otherwise furnishing or performing any work; (9) Shop drawing and submittal review by BW shall apply only to the items in the submissions and only for the purpose of assessing if, upon installation or incorporation in the Project work, they are generally consistent with the contract documents. Owner agrees that the contractor is solely responsible for the submissions (regardless of the format in which provided, i.e. hard copy or electronic transmission) and for compliance with the construction documents. Owner further agrees that BW’s review and action in relation to these submissions shall not constitute the provision of means, methods, techniques, sequencing or procedures of construction or extend to safety programs or precautions. BW’s consideration of a component does not constitute acceptance of the assembled item; (10) BW’s site observation during construction shall be at the times agreed upon in the Project scope. Through standard, reasonable means, BW will become generally familiar with observable completed work. If BW observes completed work that is inconsistent with the construction documents, information shall be communicated to the contractor and Owner for them to address.

Insurance - BW will maintain insurance coverage with the following limits and Certificates of Insurance will be provided to the Owner upon written request:

Worker’s Compensation:	Statutory Limits	Excess Umbrella Liability:	\$10 million per claim and aggregate
General Liability:	\$1 million per claim	Professional Liability:	\$5 million per claim
	\$2 million aggregate		\$5 million aggregate
Automobile Liability:	\$1 million combined single limit		

In no event will BW’s collective aggregate liability under or in connection with this Agreement or its subject matter, based on any legal or equitable theory of liability, including breach of contract, tort (including negligence), strict liability and otherwise, exceed the contract sum to be paid to BW’s under this Agreement. Any claim against BW arising out of this Agreement may be asserted by the Owner, but only against the entity and not against BW’s directors, officers, shareholders or employees, none of whom shall bear any liability and may not be subject to any claim.

Indemnification and Mutual Waiver – (1) To the fullest extent permitted by law, BW shall indemnify and hold harmless the Owner and its officers and employees from claims, costs, losses, and damages (“Losses”) arising out of or relating to the Project, provided that such Losses are attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, but only to the extent caused by any grossly negligent act or omission of BW; (2) To the fullest extent permitted by law, Owner shall indemnify and hold harmless BW and its officers, directors, employees, agents and consultants from and against any and all Losses (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project provided that any such Losses are attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, but only to the extent arising out of or occurring in connection with the Owner’s, or Owner’s officers, directors, employees, consultants, agents, or others retained by or under contract to the Owner, negligent act or omission, willful misconduct, or breach of this Agreement; (3) To the fullest extent permitted by law, Owner and BW waive against each other, and the other’s employees, officers, directors, insurers, and consultants, any and all claims for or entitlement to special, incidental, indirect, enhanced, punitive, or consequential damages, in each case regardless of whether such party was advised of the possibility of such losses or damages or such losses or damages were otherwise foreseeable, and notwithstanding the failure of any agreed or other remedy of its essential purpose; (4) In the event Losses or expenses are caused by the joint or concurrent fault of the BW and Owner, they shall be borne by each party in proportion to its respective fault, as determined by a mediator or court of competent jurisdiction; (5) The Owner acknowledges that BW is a business corporation and not a professional service corporation, and further acknowledges that the corporate entity, as the party to this contract, expressly avoids contracting for individual responsibility of its officers, directors, or employees. The Owner and BW agree that any claim made by either party arising out of any act of the other party, or any officer, director, or employee of the other party in the execution or performance of the Agreement, shall be made solely against the other party and not individually or jointly against such officer, director, or employees.

Termination - Either party may terminate this Agreement upon ten (10) business days’ written notice to the other party in the event of failure by the other party to comply with the terms of the Agreement through no fault of the terminating party. A condition precedent to termination shall be conformance with the Dispute Resolution terms below. If this Agreement is terminated, Owner shall receive reproducible copies of drawings, developed applications and other completed documents upon written request. Owner shall be liable, and shall promptly pay BW, for all services and reimbursable expenses rendered through the effective date of suspension/termination of services.

Use of Documents – All BW documents (data, calculations, reports, Drawings, Specifications, Record Drawings and other deliverables, whether in printed form or electronic media format, provided by BW to Owner pursuant to this Agreement) are instruments of service and BW retains ownership and property interest therein (including copyright and right of reuse). Owner shall not rely on such documents unless in printed form, signed or sealed by BW or its consultant. Electronic format of BW’s design documents may differ from the printed version and BW bears no liability for errors, omissions or discrepancies. Reuse of BW’s design documents is prohibited and Owner shall defend and indemnify BW from all claims, damages, losses and expenses, including attorney’s fees, consultant/expert fees, and costs arising out of or resulting from said reuse. Project documents will be kept for time periods set forth in BW’s document retention policy after Project closeout.

Successors, Assigns, and Beneficiaries – Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or BW to any third party, including any lender, contractor, subcontractor, supplier, manufacturer, other individual, entity or public body, or to any surety for or employee of any of them. All duties and responsibilities undertaken pursuant to this Agreement are for the sole and exclusive benefit of the Owner and BW and not for the benefit (intended, unintended, direct or indirect) of any other entity or person.

Dispute Resolution - All disputes between the Parties shall first be negotiated between executives who have authority to settle the dispute for a period of thirty (30) days. If unresolved, disputes shall be then submitted to mediation as a condition precedent to litigation. The mediation session shall be held within forty-five (45) days of the retention of the mediator, and last for at least one (1) full mediation day, before any party has the option to withdraw from the process. If mediation is unsuccessful in resolving a Dispute, then the parties may seek to have the Dispute resolved by a court of competent jurisdiction.

Miscellaneous Provisions – (1) This Agreement is to be governed by the law of the state or jurisdiction in which the project is located; (2) all notices must be in writing and shall be deemed effectively served upon the other party when sent by certified mail, return receipt requested; (3) all express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion and/or termination for any reason; (4) any provision or part of the Agreement held to be void or unenforceable under any laws or regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Owner and BW, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that expresses the intention of the stricken provision; (5) a party’s non-enforcement of any provision shall not constitute a waiver of the provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement; (6) to the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of substantial completion, which is the point where the Project can be utilized for the purposes for which it was intended; (7) this Agreement, together with any other documents incorporated herein by reference, constitutes the sole and entire agreement of the parties with respect to the subject matter of this Agreement and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter; (8) no amendment to or modification of this Agreement is effective unless it is in writing and signed by each party.



REQUEST FOR COMMITTEE ACTION

Referred to Committee: September 28, 2023
Subject: Water Tower 1 Phase I Engineering
Staff Contact: Alan Lange, Public Works Director
Department: Public Works

TITLE: Approval of a Professional Services Agreement between the City of Wood Dale and HR Green for Water Tower 1 Phase I Engineering in an Amount Not to Exceed \$45,975

RECOMMENDATION:

Staff Recommends Approval of a Professional Services Agreement between the City of Wood Dale and HR Green for Water Tower 1 Phase I Engineering in an Amount Not to Exceed \$45,975.

BACKGROUND:

HR Green has recently completed a study of the City's water distribution system in order to assist with the development of a 10-year Capital Improvement Plan. This study identified deficiencies with the existing 100,000-gallon water tower located in the City's low-pressure zone near the North Wastewater Treatment Plant. The lack of elevated storage results in increased pump cycling and the potential for increased pressure fluctuations caused by water main breaks or fire usage. These situations place added wear and tear on the City's pumping equipment and water mains leading to water main breaks and lower system reliability.

Additionally, in order to meet demand, the low-pressure zone currently supplements water production by moving water from the higher-pressure zone through the Central Avenue pressure reduction valve. The study showed that these deficiencies would be exacerbated by continued development within the higher-pressure zone, more specifically, with the incorporation and development of additional industrial and commercial uses within the TIF district along IL-83.

In response, staff has issued a request for proposals for pre-qualified engineering firms to conceptualize a larger tower (750,000-gallon), determine if the existing site is adequate to support a larger tower, explore alternative site locations and develop

estimates of probable costs for the various alternatives. Three proposals were received and discussed by the RFP Steering Committee, and a recommendation was made to award the project to HR Green. The fees for the proposals are shown below and the full submittals can be viewed at the following link:

- HR Green - \$45,975
- Robinson Engineering - \$29,863
- Christopher Burke Engineering - \$50,520

<https://www.dropbox.com/sh/kshz76jtgrafelw/AABtZZRYBu5yZeh8T727CQyua?dl=0>

HR Green was recommended due to their familiarity with the water distribution system having recently completed the Water System Master Plan which included looking at alternate tower locations. Robinson Engineering, although having the lowest fee, did not include an allowance for additional authorized services as requested. There was also concern that their proposal excluded several elements which may be required as part of the base services including soil borings and updating the hydraulic model.

After acceptance of the recommended project by the Public Works Committee, staff will negotiate Phase II and Phase III Engineering fees.

ANALYSIS:

\$400,000 was budgeted for engineering services related to the reconstruction of the elevated tower in FY 2024. This budget includes the anticipated fees for Phase II Engineering (full design and bidding assistance) as well. It is expected that the Phase I report will be submitted for approval by the Public Works Committee in December 2023 with negotiations for Phase II following shortly thereafter.

DOCUMENTS ATTACHED

- ✓ HR Green Services Proposal
- ✓ HR Green Fees Proposal



Building Communities.
Improving Lives.

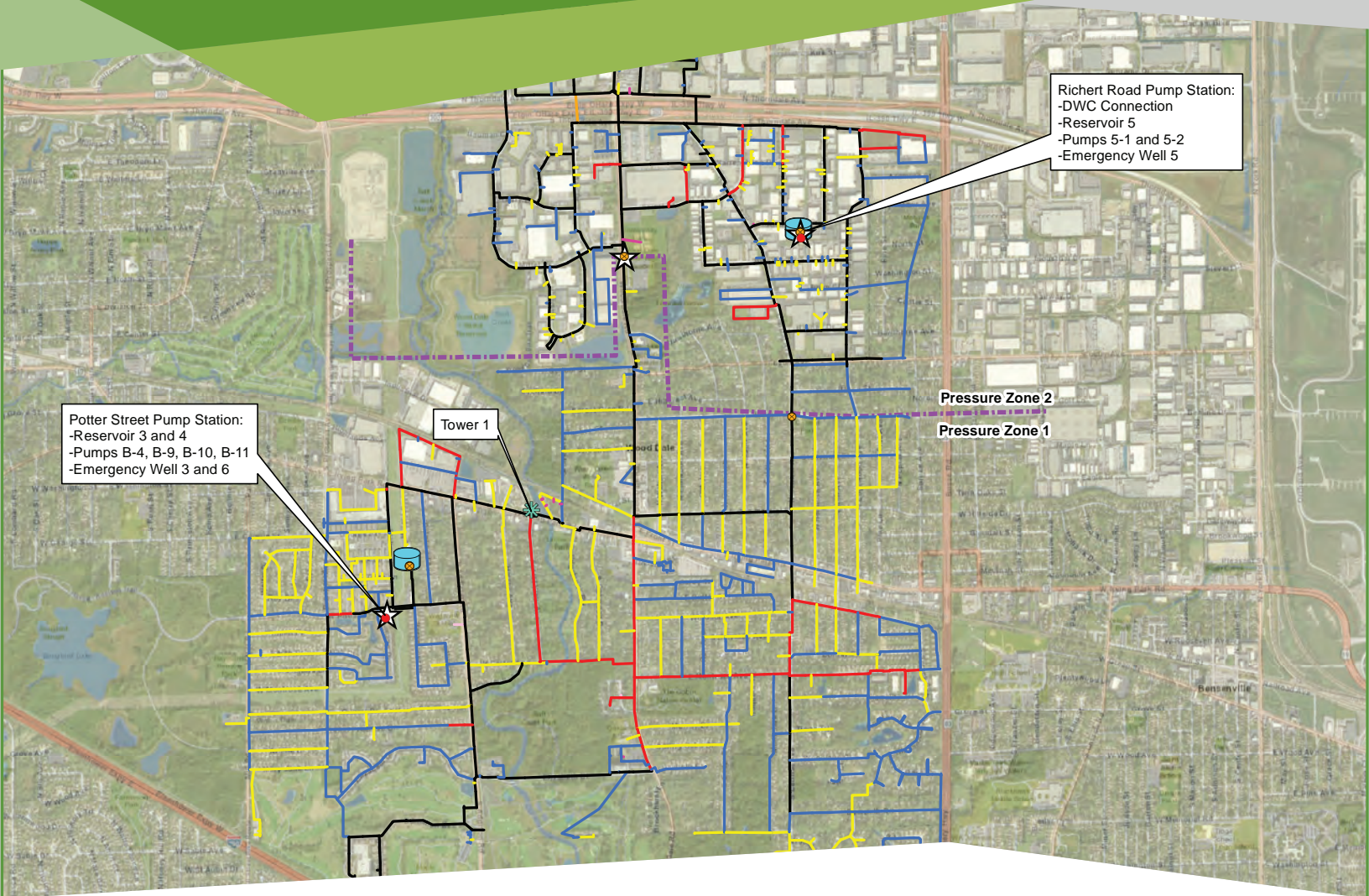
Reconstruction of Elevated Water Storage Tank (Tower 1)

PROPOSAL FOR

Phase I Engineering Services – Proposal

COPY

SEPTEMBER 1, 2023



Ravi Jayaraman, PE

1391 Corporate Drive | Suite 203
McHenry, IL 60050

Direct 815.759.8312

rjayaraman@hrgreen.com



▶ 1391 Corporate Drive | Suite 203
McHenry, IL 60050
Main 815.385.1778 + **Fax** 713.965.0044
▶ HRGREEN.COM

September 1, 2023

Attn: Wendy Bednarz, Public Works Management Analyst
City of Wood Dale, Public Works
790 N. Central Avenue
Wood Dale, IL 60191

Re: Professional Engineering Services for Reconstruction of Elevated Water Storage Tank (Tower 1) – Phase 1 – Proposal

Dear Ms. Bednarz,

On behalf of the HR Green Team, we are pleased to present this proposal to provide Professional Engineering Services for Phase 1 Engineering Services for Reconstruction of Elevated Water Storage Tank (Tower 1). HR Green has previously assisted the City with completing the Water Distribution System Master Plan (Master Plan). This project was identified as a needed project in the Master Plan. Our role on this project has allowed us to gain a better understanding of the City's current and future water distribution system needs. This proposal describes our qualifications, past experience, and the team of HR Green professionals that we believe are best qualified to provide the services needed to complete this project. We understand the importance of these projects and their significance to the long-term viability of the City's water system. We also recognize the need to complete this work on time, within budget, and in a seamless and well-coordinated fashion.

Since our founding in 1913, HR Green has enjoyed a reputation for technical innovation, community leadership, and accountability to the needs of its Clients. Our team is poised and ready to assist the City with this important infrastructure project. We believe HR Green is well suited to complete this type of project for the City for the following reasons:

- ▶ **Value** – We understand that operating a water distribution system is a serious responsibility. Life cycle costs not only include construction costs, but operation and maintenance (O&M) and long-term replacement costs as well. These are large investments not to be taken lightly. That's why choosing an engineering firm that has the experience and qualifications to develop a design that incorporates operational efficiencies and capital cost life cycle planning while meeting regulatory requirements is an important strategy. Sound judgment and good engineering is critical to the success of all projects. We consider both the capital and O&M costs of design, materials and equipment as we seek the best fit for each unique situation. We work closely with operation and maintenance staff, listening to their concerns on each aspect of the project, so our engineers can craft the best overall design for the facility. We have no allegiance with any equipment vendors or manufacturers, so our Clients benefit from our unbiased value recommendations.
- ▶ **Experience/Technical Expertise** – HR Green has completed projects of similar scope and size, particularly in developed neighborhoods with emphasis on reducing impacts to residents, sensitivity to public relations, and building consensus with the stakeholders. Key issues such as access, traffic control, safety, tree and landscaping impacts, utility conflicts, construction schedule, etc. will need to be addressed and managed. Our similar project experience is provided in the Additional Information section of this Proposal.
- ▶ **Resources** – HR Green has the resources to get the work done on-time and on-budget. With over 600 staff in 18 offices, our bench of seasoned professionals has the capacity to address all aspects of the project. The team we propose for the project is steeped in similar project experience, with Project Manager Ravi Jayaraman and many



▶ 1391 Corporate Drive | Suite 203
McHenry, IL 60050
Main 815.385.1778 + Fax 713.965.0044
▶ HRGREEN.COM

key team members being local and ready to address project needs as they arise. Whether it is presenting a complex issue at City Board meetings or meeting with residents and staff to help solve problems, our staff will be your trusted engineering resource.

▶ **Relationship with Wood Dale** – HR Green has a long established and valued relationship with the City. We are very familiar with the City's staff, processes, procedures, and requirements. Our relationship with Wood Dale is fundamentally built on looking out for the City's best interests at all times and securing funding from various sources, regardless of the size and scope of the project. We have been involved in a wide range of City projects and we do not take that for granted. We believe we are, and act as an extension of, City staff to deliver quality projects to your residents. In essence, we act and perform as though we are part of the fabric of Wood Dale.

Per the RFP, HR Green acknowledges receipt of Addendum 1 on August 25, 2023. We believe our proposal demonstrates HR Green's specialized experience, technical competence, record of performance, and existing relationship with the City to deliver the project results that you desire. We value our relationship with the City of Wood Dale and welcome the opportunity to be part of another successful project. If you require any additional information or have any questions, please do not hesitate to contact me at 815.759.8312 or rjayaraman@hrgreen.com.

Sincerely,

HR GREEN, INC.

A handwritten signature in black ink that reads 'Ravi Jayaraman'.

Ravi Jayaraman, PE

Regional Manager – Water

Table of Contents

Cover Letter..... Precedes This Page

Work Overview 1

Work Plan 2

Terms and Conditions 5

Implementation Schedule 5

Additional Information and Comments 6

 Firm Overview 7

 Project Team and Resumes..... 9

 Relevant Project Experience 14

MISSION ▶ Building Communities. Improving Lives.

VISION ▶ Solutions that inspire our employees, exceed our clients' expectations, and create a lasting legacy in our communities.

VALUES ▶ Leadership, Performance, Operational Excellence, Collaboration, Community



LEADERSHIP

▶ We grow and adapt to a changing and complex world.

We exert positive influence within our industries and help our clients face the future with confidence.

We encourage, equip, challenge, and cultivate our employees to be leaders in our company and their communities.



PERFORMANCE

▶ We approach each day with an owner's perspective.

We strive for constant improvement, and we never forget our basic responsibility to deliver the right, sensible results for each other and our clients.



OPERATIONAL EXCELLENCE

▶ We operate a profitable and sustainable organization.

We are highly aligned to our goals and values, while allowing individuals and groups the autonomy to achieve their potential.

We seek to understand each situation's context rather than controlling it, enabling innovation and entrepreneurial solutions.

We embrace flexibility and the responsibility that accompanies this freedom, while being accountable to our goals and each other.



COLLABORATION

▶ We build partnerships.

We are transparent and genuine in our words and actions.

We listen attentively and communicate openly, truthfully, and clearly.

Our teamwork exemplifies the qualities of honesty, responsiveness, integrity, and understanding.

We embrace diversity of people and ideas as we work toward a common goal and serve as a trusted advisor.



COMMUNITY

▶ We make a difference in our offices and our communities.

We provide a place for our people to grow, prosper, and enjoy their profession while building lasting relationships leading to mutual success.

We utilize our personal and professional talents to be good stewards of our community resources.

We give back to our communities through volunteer and charitable actions.



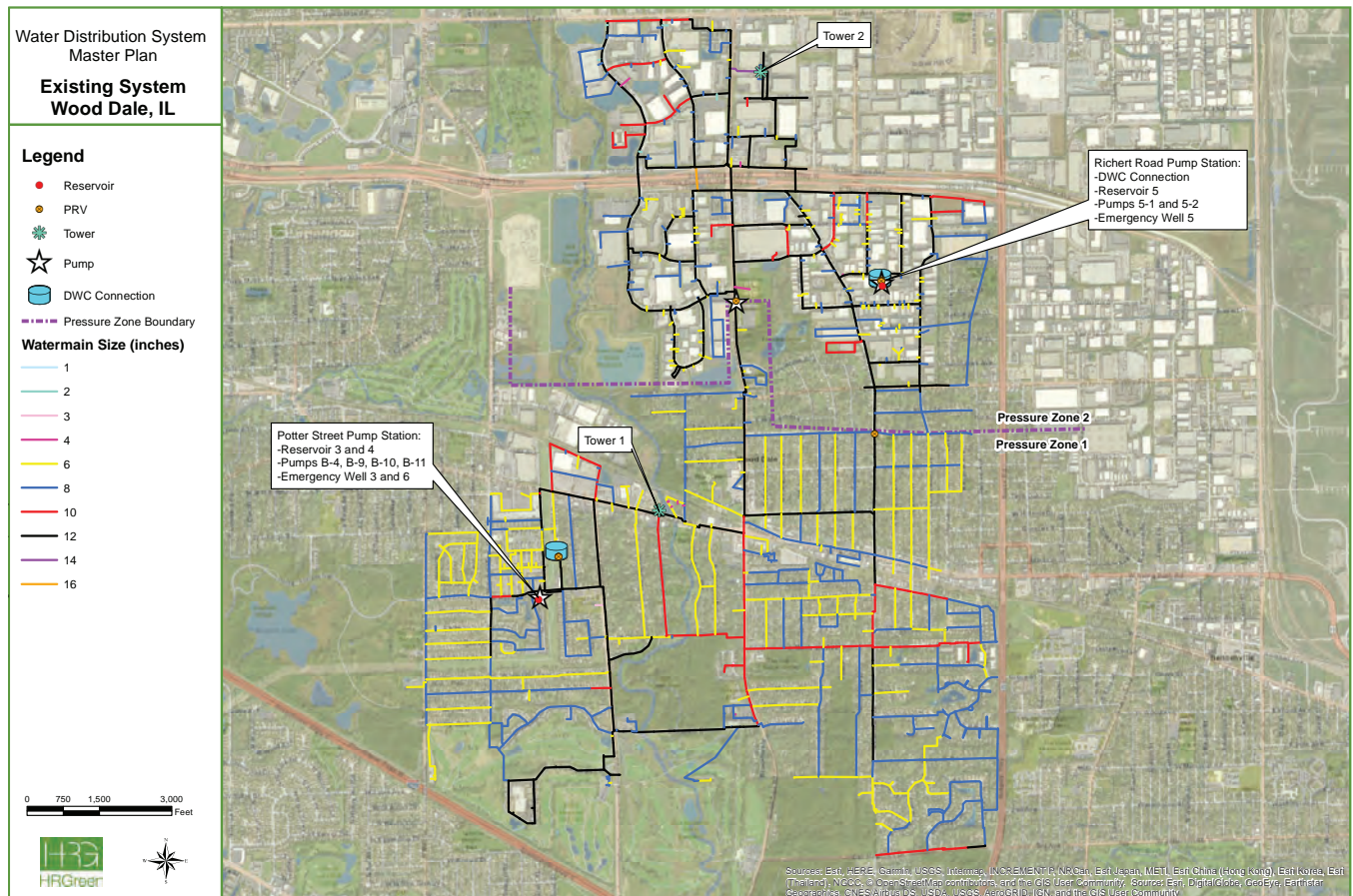
Work Overview

HR Green recently assisted the City of Wood Dale (City) with a study of the City's water distribution system. The water distribution system operates within two pressure zones: Low Pressure Zone (Pressure Zone 1) which includes a 100,000 gallons elevated storage tank and two ground storage tanks (1.0 million gallons and 500,000 gallons), and High Pressure Zone (Pressure Zone 2) which includes a 500,000 gallons elevated storage tank and one ground storage tank (1.25 million gallons). Water from the ground storage tanks is pumped into the system from high service pumps. The distribution system also includes two Pressure Reducing Valve (PRV) stations. The distribution study demonstrated that the existing system infrastructure is adequate for the existing system demands. However, the lack of elevated storage in Pressure Zone 1 causes the pumps to turn on and off often due to the quick fill and draw cycle of the existing storage tank. The quick fill and draw cycle results in pressure fluctuation throughout Pressure Zone 1. HR Green understands these deficiencies are expected to worsen with continued development

within the City. The study identified that a 750,000 gallons storage tank in Pressure Zone 1 would allow for a longer fill and draw cycle which would prevent the pumps from turning on and off as often and provide more stable pressure throughout the pressure zone. The City's preference is to reconstruct the elevated tank in the same location as the current tank; however, the City is also requesting up to three alternate sites be investigated. For the alternate sites, the City is requesting a brief analysis of the property including a property description, land use restrictions, and any other relevant environmental assessments.

HR Green understands the scope of the proposed project to cover Phase I Engineering to identify a feasible project site including several alternates, estimates of probable cost, identification of any underlying requirements and potential challenges, and submit applications for various funding sources for the proposed elevated storage tank.

EXISTING WATER SYSTEM



Work Plan

PART 1 – BASE SERVICES

▶ Task 1 – Project Administration

The HR Green Project Manager will provide project administration services to manage the scope, schedule and budget and maintain project correspondence files. Scope will include preparation of a work breakdown structure and work plan, updating the work plan, and preparing monthly invoices. Invoices will state work completed in the month prior as well as work anticipated to be completed in the following month.

The HR Green Project Manager will provide the City with a weekly email update discussing the work completed in a given week and the work planned for the following week.

▶ Task 2 – City Kick-off Meeting

HR Green will schedule and host one (1) project kick-off meeting with the City after Notice to Proceed. The meeting location to be chosen by the City. Attendees from HR Green will be the Project Manager and Lead Engineer. HR Green will prepare for the meetings, including preparing a meeting agenda, sign-in sheet, exhibits, and distributing meeting minutes to all attendees following the meeting.

▶ Task 3 – Preliminary Information Gathering

Task 3.1 – Data Request and Coordination

The following information will be requested and obtained from the City:

- ▶ Any previous survey data.
- ▶ GIS shape files including but not limited to aerials, topography, utility atlases, and parcel data.
- ▶ Copies of plans and/or as-builts of prior improvements within the project limits.
- ▶ Available easements and easement agreements, title commitments for current tank locations, and alternate sites.
- ▶ The proposed 750,000 gallons elevated storage tank (EST) is expected to be about 64'-6" in diameter with a base cone diameter of 34'-0". The design of the existing 100,000 gallon EST foundation is unknown. Assuming the foundation is of pile foundation, HR Green expects the existing tank site may not be large enough to build the proposed larger size tank. The existing tank site from a cursory review seems to not have sufficient space for construction operations

required to construct the larger diameter tank. It is therefore assumed that a new site would need to be identified for the proposed tank. As required in Addendum 1, HR Green has assumed a Phase 1 Environmental Site Assessment would be needed and have included the required efforts in the scope of services.

- » City to provide HR Green full access to the property included in the Phase I ESA; a copy of the chain of title and deed history; contact information to coordinate site visit; and will complete a User Questionnaire and Owner Interview, if the City owns the property. All site visits will be completed in the same mobilization.
- » If findings identify recognized environmental conditions (RECs) and the City plans to complete additional assessment via a Limited Site Investigation or Phase II ESA, an amendment will be provided to the City.

- ▶ Topographic Survey, Right-of-Way and Boundary Survey, geotechnical services and CCDD certifications, environmental – wetlands, U.S. Fish and Wildlife Section 7 survey, and Illinois Department of Natural Resources Eco-CAT consultations are not included in the proposed scope of services.

▶ Task 4 – Study and Report Phase

Utilizing information gathered from the preliminary information gathering phase, HR Green will prepare a report that includes conceptual design criteria, schematic layouts, and exhibits. The scope of services under this Task will follow the requirements included in the Request for Proposal.

In order to pick the best solution for the City, factors that would be taken into consideration include:

- ▶ The elevation of a storage tank and its operational level determines the water pressure in the community. New systems are typically required to provide a minimum pressure of 20 PSI (pounds per square inch) at ground level at all points in the distribution system under all flow conditions. Typically, normal working pressure in a distribution system will be approximately 60 to 80 PSI and not less than 35 PSI. The water level in the tower must be high enough to supply that level of pressure to all customers in the zone served by the tower.

► Available land for new water storage tanks and the location go hand in hand to also determine the required height of the tank. Water towers are typically located on high ground and tall enough to provide the necessary pressure. By choosing a higher elevation site, the height of the tower can be reduced, thus reducing the cost of construction. However, many factors can complicate location selection. For instance, overhead or underground utility cables may need to be relocated. Utility relocations are time-consuming and need advance planning and coordination with the utilities and regulatory agencies. In locating an elevated tank, the following criteria are recommended for consideration:

- » Maintain pressure in the distribution system – The tank’s operational elevation is usually 140-feet to 185-feet (ground to overflow) above the service area to maintain a pressure of 60-80 PSI. Higher ground elevations are preferred so that water towers can be less than 140-feet to 185-feet tall.
- » Location within a pressure zone – To maximize the benefits from hydraulic water pressure to a pressure zone, the tank should be located in the central portion or the far side of the zone, this allows the tank to supplement demands during peak usage and result in higher service pressures. However, consideration should also be given to the turnover of the tank in order to limit long residence times and the associated operational issues. A tower on the edge of a system may sit stagnant for long periods of time, resulting in low chlorine residuals, thermal stratification, and ice formation. Siting a storage tank requires a balanced approach to maximizing pressures while optimizing water quality and operations.
- » Distance from existing water transmission main – Storage tanks require large flows to both fill the tank and drain to meet peak usage. Tank sites farther from high-capacity water transmission mains may require an investment in a connecting main at additional cost.
- » Site area, availability, and accessibility – Adequate site area will be required to provide clearance for construction and future maintenance of the tank. The site needs to be available to purchase, preferably undeveloped, to overcome resistance from other property owners. The site shall provide adequate

access for construction and maintenance equipment. The costs associated with acquiring the parcel must be considered.

- » Foundation design – Storage tanks and the associated water volume result in a large amount of weight that needs to be supported. Standpipes and elevated storage tanks also need to be designed to resist overturning due to wind loadings. The requirements for Foundation Design make choosing the location of a new water tower important, and sometimes difficult. Engineers must complete detailed geotechnical investigations to understand the underlying soil properties at potential sites. This is an important step to prepare the foundation design for the water tank to resist settlement and overturning. Since the locations for the siting the tower are unknown, HR Green will collect information from the City on any historical geotechnical information that it may have in files. HR Green's scope of service for the study project does not include geotechnical investigations.
- » Water age – Water quality is impacted by keeping water in the system fresh. This means turning over the water in the tower and reducing stagnant conditions. Increased water age can lead to deteriorating water quality such as the increased formation of disinfection-by-products (DBPs), nitrification, and loss of disinfection residual. Taste and odor problems can also result from excessive water age. Therefore, the location for the water tower must be selected with an understanding of how water moves through a water distribution system. Poor site location can have a seriously detrimental effect on distribution system water quality.

The requirements of the governmental agencies – Illinois Environmental Protection Agency (IEPA), Illinois Department of Transportation (IDOT), Federal Aviation Administration (FAA) – will be identified and included in the study report. Consultation with IDOT will be required if any roadways managed by the agency are impacted in the construction of the proposed elevated tank or for the water main connection or extensions. Since the City is adjacent to the O’Hare International Airport, the construction sequencing of proposed elevated tank may need to be coordinated with FAA. In addition, the location of the proposed tank may also need to be coordinated with the FAA. The FAA has regulations impacting siting

of the elevated storage tank. The Code of Federal Regulations (CFR) – 14 CFR 77.19 – is one of the primary ones to reference. In the subject CFR, specifically need to pay attention to sections 77.19 (a), (b), and maybe (e) The report would also include a cost-benefit analysis of locating the tank at the existing site versus potential alternate locations, and possible funding sources based on proposed improvements.

A review meeting will be held to review the preliminary study report. The outcome of the review meeting would be to review the study recommendations, so the report can be finalized and submitted to the City. The final study report would guide the City with the preferred tank location and proceed with detailed preliminary and final engineering plans. HR Green will prepare for the meetings, including preparing a meeting agenda, sign-in sheet, exhibits and distributing meeting minutes to all attendees following the meeting.

HR Green has the capability to run Sun Shadow simulations on a particular tank height and location. In addition, we have the capabilities to put together renderings that would allow the City to have a better idea of how a tank would look and impact the neighbors. An example of a rendering prepared for another project is shown below as an example. Finally we can also produce a Revit model of the tank and portray it on a Google Earth image. The Revit model would provide the City various

versions of a design to help with picking out some of the tank dimensions. An example of a Revit model prepared for another project is also shown here as an example. HR Green can provide the above services as an additional service if the City so desires.

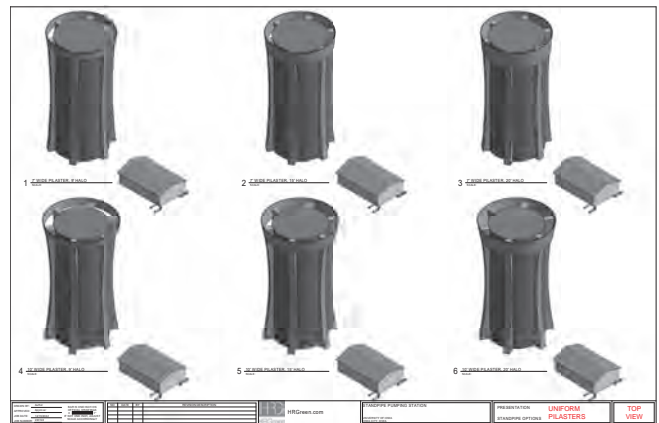
PART 2 – ADDITIONAL SERVICES

Additional Services Requiring City’s Written Authorization:

1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project.
2. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, changes in size, complexity, City’s schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date or are due to any other causes beyond Engineer’s control.
3. Services resulting from City’s request to evaluate additional Study and Report Phase alternative solutions.



► Rendering Example



► Revit Model Example

Terms and Conditions

HR Green has previously worked with the City on several studies, designs, and construction administration services contracts. Those projects utilized a variety of contract forms with Wood Dale, including the DOT agreement for the recent Elizabeth Drive Bridge over Salt Creek (Addison Road to Forest Preserve Drive) project. We have also used HR Green's professional services agreement for three (3) recent projects including the Veterans Park Landscaping, Tall Oaks Detention Basin Retrofit, and Elizabeth Drive MUP. We propose to use the same form of agreement we have on these most recent projects as they have already been reviewed and approved by both parties. If it is not possible to use the same form of agreement, we would like to discuss the hold harmless and responsibility and default clauses referenced in the RFP in further detail and would be prepared to quickly finalize an agreement with the City, once selected.

Implementation Schedule

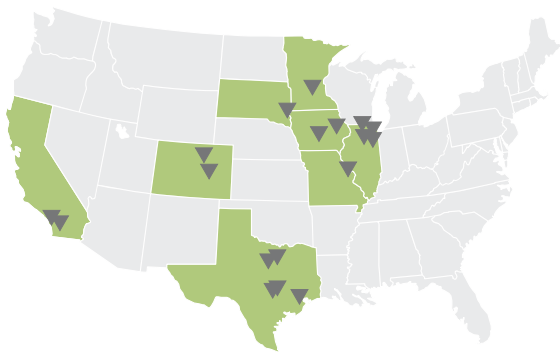
HR Green has the staff availability and previous experience to meet the City's desired schedule; however, there may be issues out of HR Green's control that could impact the overall project schedule such as regulatory agencies and utility coordination. Our team is poised to begin work upon Notice-to- Proceed.

Proposed Implementation Schedule	
Task Item	Completion Date
Notice to Proceed	October 18, 2023
Kick-off Meeting	Week of October 23, 2023
Preliminary Information Gathering	November 10, 2023
Study and Report Phase	December 15, 2023

Additional Information and Comments

HR Green, Inc. is proud to be one of the nation's longest operating engineering firms. Established in 1913, HR Green is employee owned corporation and has over 600 employees. We collaborate across geographies and markets to provide the engineering, technical, and management solutions that connect and shape communities and are driven by the commitment of our Clients.

For more than a century, HR Green has been dedicated to providing the services that our clients need to achieve success.



18 OFFICES IN 8 STATES

HR Green offices are located throughout the United States in California, Colorado, Iowa, Illinois, Minnesota, Missouri, South Dakota, and Texas.



**OVER 600
EMPLOYEES**

**ENR
TOP 500
Design Firms**

► HR Green has continued to climb the rankings on Engineering News Record's (ENR) annual lists of top design and construction firms in the nation, coming in at **168**.

COMPREHENSIVE SERVICES



WATER

From feasibility studies through construction phase services, we help clients achieve reliable, cost-effective, and innovative solutions for potable and process water, wastewater, and water resources management.



ENVIRONMENTAL

Whether your needs include the remediation of brownfields sites to allow for redevelopment in your community, environmental compliance for infrastructure and facilities, or NEPA services for transportation infrastructure, we can provide your solutions.



TRANSPORTATION

Whether your infrastructure needs include design, construction, funding identification, innovative geometry, environmentally sensitive areas, sustainable and attractive structures, or difficult traffic challenges, we can provide the solutions you need.



**CONSTRUCTION
ENGINEERING**

Our construction professionals are experienced with projects for municipal, county, and state clients that include bridges, roads and highways; storm and sanitary sewers; water distribution systems; water treatment facilities; wells, and storage facilities; pumps and lift stations; and wastewater facilities.



**FIBER +
BROADBAND**

Unlock your infrastructure's hidden value, build a roadmap to success, bridge the digital divide, attract a Gigabit Economy, foster resilience, and help prepare your community or service area for the future.



GEOSPATIAL

Land surveying, GIS mapping, data collection, or field observations are often the crucial first step to any project. HR Green's geospatial professionals have a keen eye for detail and keep your project goals front of mind while adapting as required by site conditions.



**GOVERNMENTAL
SERVICES**

Our Gov Services professionals provide staff augmentation and multi-faceted consulting services to local governments. We provide Engineering, Public Works, Planning, and Building Departments with staff to meet the variable workloads without the normal long-term costs.



**LAND
DEVELOPMENT**

We combine technical expertise, a passion for service, and business savvy to make projects highly successful. Our professionals provide land planning, engineering, and landscape architectural services in a single, integrated team to help streamline the design process.



PLANNING

Our planning services allow clients to imagine their future. Both new and established communities must set a strategy for growth and development. Our planning professionals recognize regulatory and economic parameters while utilizing implementation tools that lead to success and practical application.





Potable Water Services

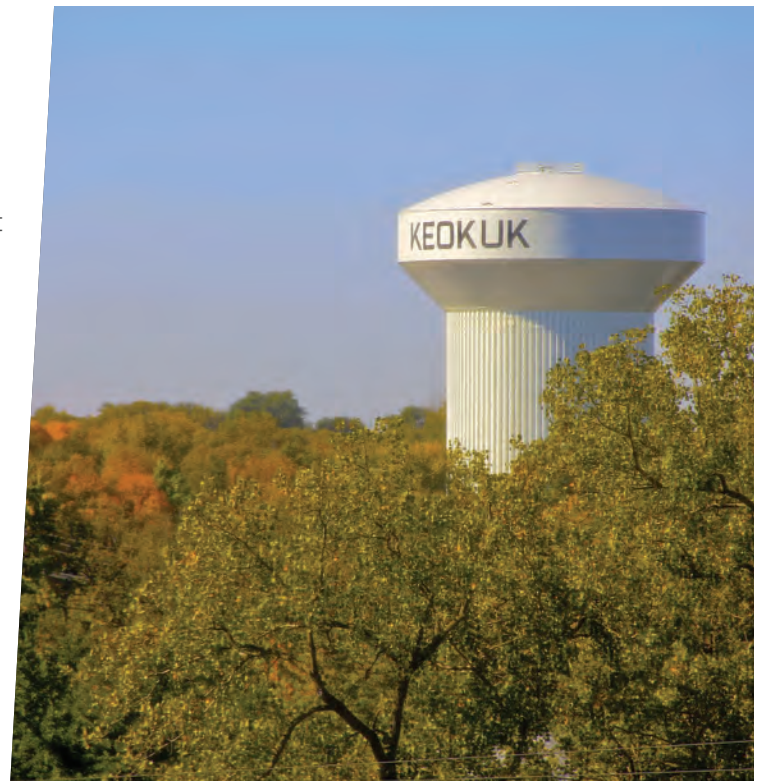
High-quality potable and process water at an affordable price is a critical component to your success. Look to HR Green for a unique fusion of engineering and business acumen, helping public and private utilities and wet process industries develop sustainable, cost-effective solutions.

HR Green provides comprehensive water services to move public and private projects from conceptual planning through design, financing, permitting, construction, start-up, and operation.

Our engineers make accountable decisions in the planning and design of source water facilities, treatment plants, storage, pumping, and distribution systems.

When it comes to maintaining the viable operation of source, treatment, and distribution systems, we work with you to get your facility running and help streamline the process.

We collaborate with our clients from project inception to successful completion, always seeking value driven solutions to your project needs.





POTABLE SERVICES

► Funding Assistance

We can develop a funding strategy for capital projects and help apply for the options that best fit each individual project. We have helped our clients successfully gather millions in outside funding.

► Pilot + Treatment Studies

Demonstrating process performance on a smaller scale before projecting and developing full-scale plants can help drive successful projects. We can develop pilot protocols and establish and operate pilots of all shapes and sizes for your project needs.

► Master Planning

Good outcomes begin with a solid plan. Starting with master planning and feasibility studies, we can help identify the best sources of groundwater or surface water. We understand the total cost of improvements to a water system is not to be taken lightly, including construction and operation and maintenance (O&M). We can identify, evaluate, and prioritize the needs of each community aimed at long-term sustainability and operations.

► Wells + Well Fields

Siting, modeling, permitting, designing, and constructing individual wells, collector wells, and well fields to deliver the capacity needed for the community.

► Storage + Reservoirs

Understanding storage capacities and peak water demand periods are critical to a community's successful supply of water to residents and local industries. Proper storage tank sizing, siting, and configuration is critical to meet storage needs without compromising water quality.

► Treatment Plants + Process Improvements

We can help you address needs such as upgrading or modernization of existing facilities or a completely new facility design. Our process experience includes conventional surface water treatment, pressure and gravity filtration, biological filtration, lime softening, Reverse Osmosis (RO) and Electrodialysis Reversal (EDR) membrane treatment, advanced oxidative processes such as ozone and Ultra-violet (UV) light, chlorine gas and liquid sodium hypochlorite disinfection systems, corrosion control and fluoridation. Per- and polyfluoroalkyl substances (PFAS) sampling and testing efforts have led communities to reevaluate their source water quality and treatment. We can help to identify replacement source alternatives and design effective treatment systems.

► Pumping Systems

We design new booster pumping stations and high service pumping stations as well as improvements to existing pumping systems with an eye on redundancy, efficiency, and system hydraulics.

► Distribution Systems + Hydraulic Modeling

We have fully integrated GIS mapping, hydraulic modeling, and design capabilities to help map, identify, prioritize, design, and construct hydraulic improvements where they are needed most. We can also work to help identify and replace Lead and Copper Service lines as part of prioritized water main replacement projects.

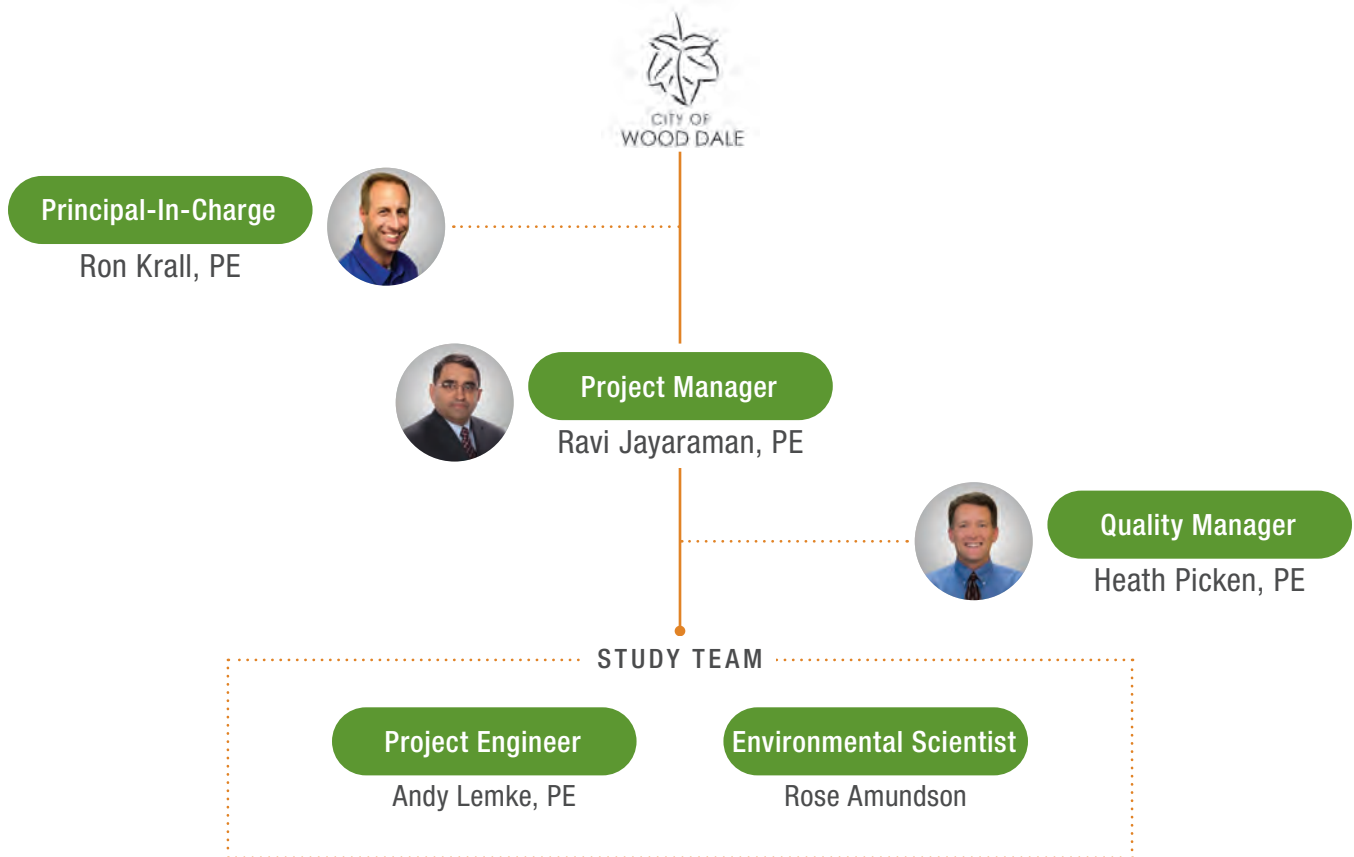
► Construction Phase Services

We focus on delivering construction observation, inspection, and support services, with an emphasis on personalized service to bring the greatest value to our clients.

PROJECT TEAM AND RESUMES

The HR Green team understands your request and how critical it is that engineering and technical staff with applicable capabilities and experience be dedicated to this project from beginning to end. HR Green has a full complement of support staff in engineering and technical disciplines that will be required for the timely execution of this project. The depth of resources of our full-service, multi-disciplined team allow us to provide all necessary services. In addition to the staff presented in this section, we have back-up resources in each of the project roles, if needed. All proposed staff is local and has worked with the City previously.

HR Green's strength as a mid-sized engineering firm lies in the experience, bench strength, and technical solutions of a National Firm, while maintaining our roots to stay focused and responsive to the needs of our Clients with a focus on using our local personnel and understanding our clients and their respective needs. Please find the proposed project team organizational chart and resumes of our key project staff below.





Ravi Jayaraman, PE

Project Manager

Ravi brings over 31 years of project management experience from a variety of public and private sector utility infrastructure projects. He has extensive experience working with contractors to successfully complete projects and elected officials and other community stakeholders affected by infrastructure construction projects. Ravi has the skills to develop and maintain client relationships while directing project budgets and maintaining costs. He led the branch office of a consulting engineering firm and mentored junior staff, developed workload projections and identified opportunities for staff to collaborate with other regional offices.

EXPERIENCE

33 Years

EDUCATION

MS, Civil Engineering,
University of Oklahoma

MS, Biological Sciences,
Birla Institute of Tech and
Services

BS, Civil Engineering,
Birla Institute of Tech and
Services

REGISTRATION / LICENSE

Professional Engineer, IL
062-052984

SELECTED PROJECT EXPERIENCE

▷ Waycinden Elevated Water Storage Tank, Illinois American Water Company – Project Manager

The updating of the existing water system entailed the installation of a new 600,000 gallon spheroidtype elevated tank, potable water piping modifications, implementation of SCADA updates, SCADA radio antenna relocation, coordination with Illinois EPA, Federal Aviation Administration (FAA), and Cook County permitting, demolition of the existing standpipe, removal of piping/pumps/electrical within the existing booster pump building, minor site grading adjustments, and the addition of an asphalt drive.

Ravi was also responsible for project management during the construction phase services for the construction of the Waycinden Elevated Storage Tank project.

His project management responsibilities include taking the project construction to completion, address request for clarifications from the Contract, issue change directives, and shop drawing review. In addition assisted the Client with preparing and submitting construction permit application to Cook County for conversion of the existing pump house as site to a storage space.

▷ Water Storage Tower, City of Wentzville, MO – Project Engineer

Water supply for the City of Wentzville has been limited for many years to external sources. This project encompasses the development of an augment to the water supply system for the city, including a deep well, a wellhouse/treatment building, a 2 million gallon water storage tower, and connection to the city water distribution system.

Ravi assisted in the coordination of design and bidding efforts for the elevated water storage and well house.

▷ Risk & Resilience Assessment and Emergency Response Plans Updates, Central Lake County, IL Joint Action Water Agency – Project Manager

▷ ERP Risk and Resilience Assessment, Lincolnshire, IL – Project Manager

OTHER FIRM EXPERIENCE

▷ Elevated Tank Improvements, Newport Chemical Depot Reuse Authority, Newport, IN – Project Manager

Project Manager for the rehabilitation of a 100,000 gallon elevated tank at the Vermillion Rise Mega Park in rural Indiana. The project included structural repairs, tank access upgrades, and coating system improvements. Responsibilities included performing a condition assessment of the elevated tank, oversight of subcontractors, and developing bid documents for construction improvements.



Ron Krall, PE

Principal-In-Charge

Ron's transportation background spans 32 years of design and managerial experience on a variety of Phase I transportation. Ron spent 14 years with IDOT and his first 24 years he was heavily involved with IDOT and larger projects, including Prairie Parkway and the Elgin O'Hare – West Bypass project. His extensive work experience in all aspects of Phase I engineering includes authoring/review of Phase I project/design reports, plan design/review, and coordination (local, agency, public, and stakeholder).

The last eight years, Ron's focus has turned more to Municipal and County projects and clients. He has established working relationships and focused on work for various NE Illinois municipalities and counties. His county experience includes Cook, DuPage, Kane, and Lake. Wood Dale has been a main focus of Ron's, and he is the Client Service Manager for the City. Ron's municipal work includes a variety of road, drainage, water systems, multi-use trail, bridges, Clock Tower/Streetscape, and aesthetic/landscaping improvement projects.

EXPERIENCE

32 Years

EDUCATION

BS, Civil Engineering,
North Carolina State
University

REGISTRATION / LICENSE

Professional Engineer, IL
062-051213

SELECTED PROJECT EXPERIENCE

- ▶ **Illinois Route 19 and Wood Dale Road, City of Wood Dale, IL – Project Manager**
- ▶ **Wood Dale Clock Tower - Phase II Design Extras, City of Wood Dale, IL – Client Service Manager, QC/QA Reviewer**
- ▶ **Eastern Gateway Beautification - Potter Street, City of Wood Dale, IL – Client Service Manager, QC/QA Reviewer**



Heath Picken, PE

Quality Manager

Heath leads a group of specialists at HR Green, whose work focuses primarily on water source development, treatment and distribution. Heath's experience spans facility planning and assessment, hydraulic modeling, design and bidding, to construction phase services. He has experience in membrane and gravity filtration, lime softening and reverse osmosis. Heath has been involved with existing plant renovations at facilities ranging from small community systems to large systems producing more than 200 million gallons (mg) per day.

SELECTED PROJECT EXPERIENCE

- ▶ **Water System Master Plan & Improvements, City of Wentzville, MO – Technical Advisor**
- ▶ **Elevated Storage Tower and Water Main, Keokuk Municipal Water Works – Technical Advisor**
- ▶ **Elevated Water Storage Tank & Transmission Main, City of Ankeny, IA – Project Manager**
- ▶ **Water Storage and Pressure Upgrade, City of Tiffin, IA – Project Manager**
- ▶ **Water Tower Design, City of Wilton, IA – Technical Advisor**
- ▶ **Elevated Water Storage Tank and Water Main Improvements, City of Anamosa, IA – Project Manager**
- ▶ **New 500,000-Gallon Water Tower, City of Rock Valley, IA – Technical Advisor**

EXPERIENCE

25 Years

EDUCATION

MS, Civil & Environmental
Engineering, University of
Iowa

BS, Civil Engineering,
University of Iowa

BA, Physics, Augustana
College

REGISTRATION / LICENSE

Professional Engineer, IA
16320





Andy Lemke, PE

Project Engineer

Andy has experience in analysis and design of water distribution systems, water treatment, wastewater collection system, and wastewater treatment. Andy has been involved in planning documents, permitting, obtaining SRF loans, design and construction. Examples of potable water experience include well pump review/design, pressure filter design, water model analysis, watermain design, elevated/ground storage tank design, risk and resilience assessment, water system infrastructure assessment, and project permitting with necessary agencies. Andy has worked on multiple water system modeling projects. He regularly coordinates with the client to gather important information to create or update the hydraulic model. Once the model has been updated, he performs analysis on the water distribution system. The analysis includes examining current and future water demands, fire flows, and water age. The analysis leads to recommendations for improvements including preparing estimated cost for improvements. He then develops a final water model report using the information obtained through the modeling process.

EXPERIENCE

10 Years

EDUCATION

MS, Civil Engineering,
South Dakota State
University

BS, Civil Engineering,
South Dakota State
University

REGISTRATION / LICENSE

Professional Engineer, IL
062-068207

SELECTED PROJECT EXPERIENCE

▷ **Water Distribution System Master Plan, City of Wood Dale, IL – Project Engineer**

HR Green provided professional engineering services for the City of Wood Dale to update their water distribution system model. The City's goals included analyzing the deficiencies within their distribution system with regards to water pressure, available fire flow, and water age. The Project included providing recommendations for the distribution system to be able to handle future development and create a 10-year Capital Improvement Plan (CIP) for the water system.

Andy was responsible for coordination with the City to obtain necessary information to update the water model, updating the water model, analyzing the model pressure, fire flow, and water age, and preparing the final report. He led the effort to provide recommendations, opinion of probable costs for recommendations, and worked with the City to create the 10-year CIP for the water system.

▷ **WTP Operational Evaluation, City of Waukegan, IL – Project Engineer**

HR Green was retained by the City of Waukegan to conduct an operational evaluation of the Water Plant and the water distribution system. The scope of services included an evaluation of the current operations of the water treatment plant and determining if the water treated at the Waukegan Water Treatment Plant (WTP) meets the US Environmental Protection Agency's (EPA) primary drinking water standards. In addition, HR Green conducted an inspection of each water treatment plant unit processes as well as the three remote booster stations, noting the current condition, operability, and noting any maintenance, reliability or service concerns. The HR Green team developed a response to all 14 examples/accusations in the anonymous letter and complete a high level condition assessment of the existing water treatment plant and water distribution system for the ability to meet the primary drinking water standards.

▷ **Risk and Resilience Assessment and Emergency Response Plan, Village of Cary, IL – Project Manager**

▷ **Water Model Update, Village Of Mundelein, IL – Staff Engineer**

▷ **2013 Water Model Update, Village Of Oswego, IL – Staff Engineer**



Rose Amundson, CGP

Environmental Scientist

Rose is a Staff Scientist with two years of experience working as an environmental consultant. Rose's experience includes Phase I and II Environmental Site Assessments, sample plan development, remediation investigations, and contamination transport modeling. Her skills include historical research, field data collection, report development, GIS mapping, and Risk Based Corrective Action evaluation using Iowa DNR Tier 1 and 2 software. Rose is a Certified Groundwater Profession (#2103) and hold a BS in environmental science and a Master's Degree in Hydrology.

EXPERIENCE

23 Years

EDUCATION

MS, Hydrology, University of Arizona

BS, Environmental Science, Iowa State University

BA, Political Science, Iowa State University

REGISTRATION / LICENSE

Certified Groundwater Professional, IA 2103

SELECTED PROJECT EXPERIENCE

▶ **IEPA Brownfield Assessment Grant Implementation, Village Of Antioch, IL - Staff Scientist**

The Village of Antioch is a community of just over 14,000 residents located within the Chicago metropolitan area in northeastern Illinois. Along its main corridor of Illinois Route 83 (IL 83), many businesses either closed or moved resulting in the environmental and economic decline of the community's urban core and central business district.

The Village was awarded an EPA Brownfield Assessment Grant to assess underutilized properties potentially impacted by Hazardous Substances and encourage the reuse and redevelopment of subject properties. HR Green assisted the Village with meeting the requirements of the EPA Assessment Grant. A key part of this project involved the redevelopment of underused land, blighted properties, and former industrial areas. The Village and HR Green collaborated to create a highly interactive brownfields project website that utilized a Geographic Information System platform to display information. The tool made the project more transparent for the general public by allowing the community to geo-reference all project data.

Rose provided client support and technical assistance with US EPA Brownfield Grant implementation.

▶ **Municipal Airport Land Acquisition, City of Lamoni, IA – Staff Scientist**

HR Green provided Land Acquisition Assistance (LAA) to the City of Lamoni, Iowa based on the Municipal Airport's approved Airport Layout Plan (ALP). Included in the Scope of Services were the following: conducting a Phase I ESA to meet the ASTM E 1527-05 standard, survey of the areas designated for fee title acquisition, easement or fee title plats for recording, appraisal, review appraisal, required maps and exhibits for submittal to FAA, and management of the associated sub-consultants. Rose completed a Phase I Environmental Site Assessment report.

▶ **3425 Bardstown Rd. Survey & Phase 1, Louisville, KY – Staff Scientist**

This project consists of an ALTA/ACSM Land Title Survey and a Phase 1 Environmental Site Assessments (ESA) for the property located at 3425 Bardstown Road, Louisville, KY. Rose provided QA/QC for the Phase I Environmental Site Assessment report.

▶ **Illiana Corridor Tiers 1 & 2 EIS, Will and Kankakee County, IL – Staff Scientist**

▶ **Hazleton Properties, Guaranty Bank & Trust – Staff Scientist**

▶ **Council Bluffs - Former Public Works Facility LSI, City of Council Bluffs, IA – Staff Scientist**

RELEVANT PROJECT EXPERIENCE

HR Green Water Tower Project Experience		
New Construction		Investigation and/or Rehabilitation
Anamosa, IA	Louis Rich West Liberty, IA	Adair, IA
Ankeny, IA	Mendota Heights, MN	Amana Refrigeration Amanda, IA
Adair, IA	Mount Ayer, IA	Amana Society Amana, IA
Antioch, IL	Nevada, IA	Apple Valley, MN
Askov, MN	New Vienna, IA	Blaine, MN
Becker, MN	Orient, IA	Chariton, IA
Brooklyn Park, MN	Osceola, IA	Centerville, IA
Cascade, IA	Oswego, IL	Conway, IA
Cedar Rapids, IA	Palo, IA	Corning, IA
Champlin, MN	Prairie Grove, IL	Creston, IA
Clarinda, IA	Richmond, IL	Denison, IA
Coon Rapids, MN	Rock Island, IL	Iowa City, IA
Creston, IA	Rock Valley, IA	Fort Madison, IA
Delano, MN	Roland, IA	Lenox, IA
Denison, IA	Savage, MN	Mendota Heights, MN
Durant, IA	Sharpsburg, IA	Norway, IA
Elk River, MN	Shiloh Washington County, IA	Osceola, IA
Fonda, IA	Somonauk, IL	Owatonna, MN
Fontanelle, IA	Southern Iowa Rural Water Association Multiple Towers	Pella, IA
Grand River, IA	Spirit Lake, IA	Postville, IA
Greenfield, IA	Spring Grove, IL	Redfield, IA
Hampton, IA	St. Michael, MN	Roseville, MN
Harrisburg, SD	Stanton, IA	Prairie View Care Facility W. Union, IA
Harvard, IL	State Center, IA	Sioux Falls, SD
Huron, SD	Tiffin, IA	Stanton, IA
Illinois American Water, IL	Toledo, IA	Treynor, IA
Johnsburg, IL	Weldon Van Wert, IA	University of Iowa Iowa City, IA
Joint Powers Water Board St. Michael, MN	Walker, IA	Wilton, IA
Keokuk, IA	Wilton, IA	White Bear Lake, MN





Waycinden Elevated Water Storage Tank

Illinois American Water Company

HR Green was contracted to review the current water system configuration and design a new elevated storage tank and accessories. HR Green assisted with obtaining and reviewing bids for the proposed project and procurement of the required FAA, IEPA, and Cook County permits. HR Green was also contracted for construction administration and observation.

The project involved the addition of a new 600,000 gallon spheroid-type elevated tank, potable water piping modifications, SCADA system updates, new asphalt drive, demolition of the existing tank, and demolition of the piping and pumps within the existing booster pump building.

The water system improvements provided ILAWC with a new water tower to serve as a cost effective replacement to the existing deteriorating standpipe. In addition, the improvements increased the overall efficiency of the system and increased the storage capacity by 90,000 gallons.



REFERENCE

Eric LaReau
Senior Design Engineer
P: 630.739.8837
E: eric.lareau@amwater.com

PROJECT HIGHLIGHTS

- Conceptual, Preliminary, and Final Design
- Permitting
- Construction administration, coordination and observation
- Storage tank design
- Potable water piping modifications
- SCADA system updates
- Water tank demolition
- Increased capacity

SIMILAR PROJECT TEAM

- Ravi Jayaraman



Water System Master Plan & Improvements

City of Wentzville, Missouri

The City of Wentzville retained HR Green to perform a water system study and build a hydraulic model of their system. The plan included a complete review and evaluation of the water supply and treatment system for areas of concern, functionality, useful remaining life, water loss and the necessity for improvements. HR Green updated the existing distribution system and created a water model utilizing the WaterGEMS software package. Information from the City's well sites and pump information was added to the model and calibrated with known pressures in the system. The hydraulic model was used to evaluate system performance during current average day and maximum day demand conditions as well as a projected future growth average day and maximum day demand condition. Steady state and extended period simulations were utilized.

Upon completion of the model, HR Green utilized the model to identify problems and deficiencies in the water system. HR Green then developed a 10-year implementation plan to address the deficiencies in the system. The final report entailed discussion of the existing facility flow, system pressures, other operational issues, alternatives for improvements, costs for all alternatives, and recommendations based on sound engineering judgment. This plan also included an evaluation of the potential treatment options available to reduce the levels of fluoride that are in the raw water supply.

Following completion of the master planning, Wentzville retained HR Green to proceed with the design and construction improvements to address short-term needs with the City's storage and supply facilities to allow for maintenance on the City's existing storage facilities. As part of the design, HR Green revised the implementation plan for long-term improvements to address service pressures. The water system improvements included construction of a new 2-million gallon spheroid elevated water storage tank and booster pumps to allow full utilization of the storage tank to peak shave high demand periods while minimizing additional distribution system improvements. The project also included a new Well No. 6 drilled over 1,600 feet deep into the Roubidoux-Gasconade aquifer with a capacity of 1,100 gpm to provide additional water supply to supplement the City's purchase capacity from Public Water Supply District No. 2 (PWSD #2). A wellhouse building was constructed to house the well and associated chemical feeds for treatment.

REFERENCE

Devon Dezort
Project Manager
P: 636.639.2054
E: devon.dezort@wentzvillemo.org

PROJECT HIGHLIGHTS

- Water Distribution System modeling and master planning
- Deep bedrock aquifer well evaluation, design and construction
- Evaluation and planning for service from and mixing of surface and ground water sources

SIMILAR PROJECT TEAM

- Ravi Jayaraman
- Heath Picken





4.0 MG Elevated Water Storage Tower & Water Main

City of Keokuk, Iowa

Keokuk Municipal Water Works currently operates a Water Treatment Plant (WTP) with an average daily demand of 12 to 14 MGD. The source for the water is the Mississippi River. A large percentage of water consumption comes from industrial users. In particular, the largest industrial user uses over half the capacity of the WTP during high demand periods. The current finished water storage system includes a 3-million gallon clearwell located at the WTP and two (2) water towers having a capacity of 1-million gallons each. In high demand periods, the Water Works staff observes the water towers draining quickly and high velocities in the City’s aging water mains. This contributed to water main breaks and discolored water due to resuspension of pipeline sediments during high demand periods.

Additional storage near the highest water users in town provide relief to the rest of the water system and reduce reliance of the water plant staff that historically had little time to react to the constantly changing industrial demands. A new 4 MG water tower was recommended. The new water tower is located in close proximity to the industrial zone and provides additional supply from the storage tank to offset peak water demands and help reduce flow velocities in the troublesome areas of the water distribution system.

The final elevation of the new water tower matches the elevation of the existing storage tanks, and the additional capacity provides additional effective storage on the water system which alleviated previous short-cycling of the elevated storage in order to maintain storage volumes to buffer demands. By spreading the towers further apart and reducing line velocities, less pressure loss is observed on the outlying areas of the distribution network. The project also involved the addition of a 24-inch water main and an additional high service pump to provide redundancy in the distribution system. Prior to this project, if the primary water main had to be taken out of service, the City could be without water in less than 2 hours due to insufficient finished water storage and restrictions in the capacity of the distribution system piping network.

The 4.0 MG water tower is the second largest elevated storage tank in the United States. The project received a \$2 million grant from the U.S. Economic Development Administration in addition to a \$1.5 million forgivable loan from the American Recovery and Reinvestment Act. HR Green provided an engineering report, water main design, water tower design, water main and water tower construction administration (review of pay requests, change orders, Buy American compliance), and construction observation for both the water main and the water tower.

REFERENCE

David Bogner
General Manager
P: 319.524.5285
E: dbogner@keowater.org

PROJECT HIGHLIGHTS

- 4 MG elevated storage tank
- Water main design
- Water tower design
- Construction administration/ observation
- Design storm sewer for tower

SIMILAR PROJECT TEAM

- Heath Picken





Elevated Water Storage Tank & Transmission Main

Ankeny, Iowa

The City of Ankeny is one of the most rapidly growing areas in Iowa. Ankeny's population swelled from 21,479 to 36,161 between 1994 and 2005 – a 68% leap in only 11 years. In order to better serve its growing population, the City needed to expand its water distribution and storage system.

HR Green assisted the City of Ankeny with design and construction observation for a new 2.5 million gallon elevated water storage tank on the City's south side. Also included in the project was a water transmission main, consisting of 12-inch and 16-inch diameter pipes. The transmission main was installed along SW State Street, a major transportation corridor burgeoning with residential and commercial growth. In order to minimize disruption to local businesses in a key commercial area, several hundred feet of the transmission main were installed by means of directional boring. Other borings were conducted to cross a state highway and a railroad.

One of the project's key challenges involved unforeseen obstacles underground. Large articles of concrete debris were discovered during trench excavation. However, by close cooperation with the contractor, additional costs were minimized.

Another key challenge was keeping the project within the City's budget constraints. In order to meet budget objectives, HR Green designed the project to include multiple bid packages to maximize contractor interest and minimize contractor markup on specialized work. In addition, as a cost-savings measure, HR Green included C900 PVC pipe among the specified materials, along with the ductile iron pipe which was customarily used by the City. This option resulted in a substantial cost savings for the City of Ankeny.

REFERENCE

Don Clark, PE
Director of Municipal
Utilities
P: 515.963.3529
E: dclark@ankenyiowa.gov

PROJECT HIGHLIGHTS

- 2.5 MG Elevated Storage Tank
- Water Transmission Main Design
- Deep Tower Foundation
- Environmental
- Wetlands disturbance mitigation

SIMILAR PROJECT TEAM

- Heath Picken



HRGreen®

TRANSPORTATION
+
WATER
+
GOVERNMENTAL SERVICES
+
LAND DEVELOPMENT
+
ENVIRONMENTAL
+
CONSTRUCTION

▷ HRGREEN.COM



Building Communities.
Improving Lives.

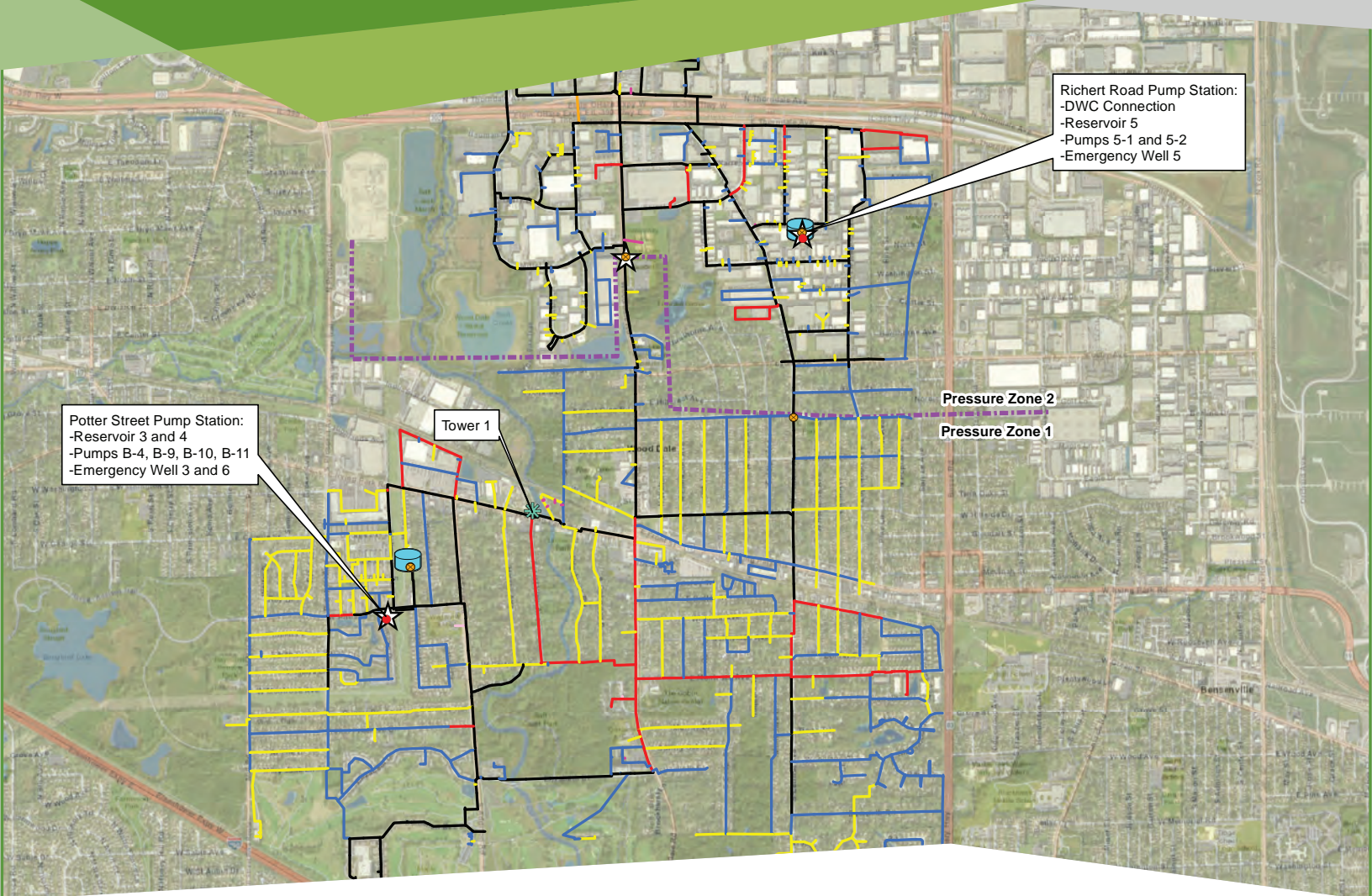
Reconstruction of Elevated Water Storage Tank (Tower 1)

PROPOSAL FOR

Phase I Engineering Services – Fees

COPY

SEPTEMBER 1, 2023



Ravi Jayaraman, PE

1391 Corporate Drive | Suite 203
McHenry, IL 60050

Direct 815.759.8312

rjayaraman@hrgreen.com



▶ 1391 Corporate Drive | Suite 203
McHenry, IL 60050
Main 815.385.1778 + Fax 713.965.0044
▶ HRGREEN.COM

September 1, 2023

Attn: Wendy Bednarz, Public Works Management Analyst
City of Wood Dale, Public Works
790 N. Central Avenue
Wood Dale, IL 60191

Re: Professional Engineering Services for Reconstruction of Elevated Water Storage Tank (Tower 1) – Phase 1 – Fees

Dear Ms. Bednarz,

Attached, herein with this letter, please find our cost proposal for the above referenced project. Per the RFP, HR Green acknowledges receipt of Addendum 1 on August 25, 2023.

We appreciate the opportunity to submit this proposal for your consideration. If you require any additional information or have any questions, please do not hesitate to contact me at 815.759.8312 or rjayaraman@hrgreen.com.

Sincerely,

HR GREEN, INC.

A handwritten signature in black ink that reads 'Ravi Jayaraman'.

Ravi Jayaraman, PE
Regional Manager – Water

EXHIBIT A BASE PROPOSAL

Preliminary Information Gathering: \$ 13,300 Dollars

Study and Report Phase: \$ 20,555 Dollars

Allowance for Authorized Services: \$ 12,120 Dollars
(Assume 16 hours of senior level and 60 hours of junior level staff. Hours only utilized at City direction.)

Total Base Proposal: \$ 45,975 Dollars



HR GREEN
Billing Rate Schedule
Effective January 1, 2023

Professional Services	Billing Rate Range
Principal	\$215- \$350
Senior Professional	\$210- \$320
Professional	\$150- \$220
Junior Professional	\$100- \$150
Senior Technician	\$135- \$175
Technician	\$80- \$140
Senior Field Personnel	\$155- \$225
Field Personnel	\$90- \$170
Junior Field Personnel	\$95- \$145
Administrative Coordinator	\$75-\$125
Administrative	\$75- \$110
Corporate Admin	\$95- \$150
Operators/Interns	\$70- \$125

Reimbursable Expenses

1. All materials and supplies used in the performance of work on this project will be billed at cost plus 10%.
2. Auto mileage will be charged per the standard mileage reimbursement rate established by the Internal Revenue Service. Survey and construction vehicle mileage will be charged on the basis of \$0.85 per mile or \$65.00 per day.
3. Charges for sub-consultants will be billed at their invoice cost plus 15%.
4. A rate of \$6.00 will be charged per HR Green labor hour for a technology and communication fee.
5. All other direct expenses will be invoiced at cost plus 10%.





HRGreen®

TRANSPORTATION
+
WATER
+
GOVERNMENTAL SERVICES
+
LAND DEVELOPMENT
+
ENVIRONMENTAL
+
CONSTRUCTION

▷ HRGREEN.COM