Request for Proposals
Town of Middletown, Maryland
Department of Public Works

Engineering Services
Brookridge Well House Drinking Water Treatment PFAS Removal

Invitation

The Town of Middletown Maryland requests proposals from professional engineering firms experienced in the design, implementation, and assessment of water treatment studies specific to the removal of per- and polyfluoroalkyl substances (PFAS) from drinking water, as described in greater detail below. Professional engineering firms will be evaluated based on demonstrated competence and qualifications for the type of engineering services needed. The result of this Request for Proposal (RFP) will be a contract for technical services as described below.
Any questions regarding this RFP may be emailed to bcarbaugh@ci.middletown.md.us . All questions shall be received by 3:00 pm on **January 9, 2025,** and their corresponding responses will be issued as an addendum to this RFP on the Town's website.
There will be a non-mandatory pre-proposal site walk on **January 7, 2025, at 10:00 am**, at the Brookridge Well House at 400 Knoll Side Place, Middletown, MD 21769. All proposers will have an opportunity to ask questions at this meeting.

Summary & Background

Middletown owns and operates a public water system serving approximately 5,300 people across 1697 service lines. The Brookridge Well House was constructed in 2010 and upgraded in 2012 with greensand filters for iron and manganese removal. The wellhouse has a permit capacity of 25,500 gallons average daily and 33,200 gallons maximum month. Drinking water is sourced from two groundwater wells (22 and 23) within the Catoctin Creek aquifer. The facility (MD0100018 FR1974G125(02)) uses calcium hypochlorite for disinfection and no other chemicals are added. Water is stored in a 30,0000 gallon ground storage tank and pumped into the western distribution system at 107 psi. Supplemental fire protection and supply is provided by the main water system via a PRV.

MDE began sampling the three Middletown WTP's in December of 2020. WTP 03 (Brookridge) is the only plant that currently exceeds the MCL.

The EPA PFAS Regulation requires that public water systems implement solutions to remove PFAS from the drinking water by 2029 (EPA, 2024).

Project Goal

Middletown seeks to implement the best treatment system to supplement the current treatment to achieve the MCLs indicated in the PFAS Regulation. Middletown has been awarded a Drinking Water State Revolving Fund Intended Use Plan (IUP) Funding. It is expected the project will receive 100% loan forgiveness. The programmatic requirements include competitive procurement, MDE SRF Insert, BABA, Davis-Bacon, DBE and review and approval of the contract by MDE prior to funding.

According to the most resent information MDE will not mandate a pilot study for PFAS projects that involve either GAC (Granulated Activated Carbon) or IX (ion Exchange). RSSCT (Rapid Small Scale

Column Testing) may help depending on the treatment option considered. The consulting engineer for the project should be prepared to make a recommendation on the pilot process. Pilot studies may be required on a case-by-case basis if the targeted PFAS compound has poor removal by the proposed technology.

The Town of Middletown reserves the right to reject any or all responses received as a result of this solicitation; to extend the submission due date for; to modify, amend, reissue or rewrite this document; and to procure any or all services by other means.

The Town of Middletown will not be liable for any costs incurred by the consulting firms' incidentals to the preparation of proposals or for developing and carrying out interview presentations, if needed.

Submission of a proposal indicates acceptance by the firm of the conditions contained in this Request for Proposals (RFP).

Scope of Services

The following Scope of Services describes the specific tasks to be performed by the Consultant. If the Consultant believes that the project can be enhanced in any way by the addition of other tasks or the deletion of any specified tasks, such information should be included in the proposal.

The Consultant shall define the approach and specific scope of work and methodology to complete the project goal. The proposal should include a detailed description of all project tasks, including those suggested below, and any proposed changes, additions or recommendations. Descriptions of each project task should include descriptions of the task itself, the methodology or analytical process, scheduling, personnel and costs.

The scope of services consists of site investigation, preliminary treatment system designs, final treatment system and building design, state and local permitting, preparation of final bid specifications and construction plans, bidding assistance, and team meetings.
The scope of services for the PFAS treatment facility design shall at a minimum include:

1. Meetings
    a. Kickoff meeting
    b. DPW Staff (assume bi-weekly remote for the design duration)
    c. Town of Middletown Burgess and Commissioners (one meeting)
    d. Engage with Maryland Water and Infrastructure Financing Administration and Water Supply Program
2. Site Investigation Preliminary Design
    a. Review of plant as builts for underground utilities
    b. RSSCT as needed, installation and sampling with Town staff.
    c. Prepare a technical memorandum detailing the performance of the RSSCT

3. Process Layout
    a. Granular activated carbon (GAC) filter vessel(s) sized appropriately for PFAS removal rates and well permitted capacity.
    b. Process piping retrofit from existing pump head through existing Mn/Fe filters and filter/addition and return to existing piping (chemical injection and outlet to Tank).
    c. Piping layout shall include:

i. Easy access for media load-in and load-out
ii. Filter bypass
iii. Filter-to-waste piping to existing Sanitary Sewer.
iv. Investigation of allowance for additional future well (assume 20 gpm) into the treatment system.

4. Site Plans
    a. Placement of building addition around existing facility, underground relocations, SWM as required by Frederick County.
5. Building layout shall include:
    a. Sufficient space for accessing and working around GAC filter.
    b. Sufficient space for the potential addition of ion-exchange vessel(s) capable of removing PFAS at the permitted well capacity.
    c. Optimize use of existing building to minimize footprint of addition.
    d. Shall meet requirements of all applicable building codes.
6. Plan Review, Certification and Approval
    a. All plans shall be reviewed and certified by MD licensed Professional Engineers qualified in associated practice areas.
    b. Plans shall be submitted to and approved by the MDE Engineering and Capital Projects Program

Proposal Format and Requirements

Sealed Proposals, plainly marked with "RFP - PFAS Treatment Facility Design for the Brookridge Wells" on the outside of the mailing envelope addressed to the Town of Middletown, 31 West main St., Middletown, Maryland 21769 will be accepted until **2:00 pm** on **January 16, 2025**. Proposals shall include a separate sealed envelope with three (3) hard copies and one (1) electronic copy (in .pdf format on USB thumb drive) are required. Technical proposals in one envelope and price proposals in a separate envelope. Submissions will not be accepted via fax or email. Submissions received at the above address after this time will not be considered.

Format

Interested firms must provide a proposal package, which should include the following:

1. Cover Letter – A brief cover letter (not to exceed two [2] pages), indicating the person able to sign on the company's behalf.

2. Company Overview – The Company Overview shall include the following, at a minimum:
    A. Location of corporate headquarters.
    B. Location of office where the work will be performed.
    C. Number of years in business for corporate and branch offices.
    D. Types of engineering services provided by the company.

3. Work plan and Approach – Discuss your firm's understanding of the Scope of Services to be performed, method for management of overall project costs, schedule, quality assurance/quality control, and other issues critical to the execution of the project

4. Project Team – Firms shall include a Project Team and Organization Chart listing all individuals assigned to various projects including the project manager. Firms shall have a minimum of two Professional Engineers on staff, licensed in Maryland, and experienced in drinking or wastewater treatment projects of similar size, scope and complexity of the

project described herein. Firms must also name any proposed sub-consultants, their intended scope of services, qualifications, and the firm's teaming experience with the sub-consultant(s). See DBE participation goal. Resumes shall be included for each project team member and shall be limited to two pages maximum per individual. Firms should also provide a list of other available local staff members who could be assigned to the projects. In the event that a substitution of a team member is required, the substitution will be submitted to The Town for approval.

5. Relevant Project Experience – Firms should list three (3) similar water design projects for which they have provided engineering services in the last ten (10) years. The following information shall be included for each project:
   A. Project location, type and year completed if applicable.
   B. Owner contact with address and phone number.
   C. Brief scope of the project and engineering services provided.
   D. Construction cost.

6. Fee – Firms should provide a complete summary of the estimated number of consulting hours, schedule of hourly rates for each classification, and total not-to-exceed cost inclusive of ancillary costs, including travel for the Scope of Services to be performed.

Schedule

Schedule Required by the Funding

- **June 1, 2025:** Submittal of final biddable design documents to MDE.
- **August 1, 2025:** Bid opening for construction project.
- **September 1, 2025 (or within 30 days of bid opening):** Submittal of procurement package with recommendation to award
- **December 1, 2025:** Start of construction, as indicated on a Notice to Proceed document

Any exception to the schedule (June 1, 2025 Final Design Document submittal) must be noted in the proposal.

EVALUATION CRITERIA

Each proposal will be evaluated initially according to the following criteria:

a. Responsiveness to submission requirements. Maximum of 15 points

b. Qualifications of firm and project team members. Particular attention will be given to the experience and demonstrated ability of the project manager and lead project engineer to successfully conduct similar projects. Maximum of 30 points

c. Project understanding, approach, and methodology to perform scope of work in a timely manner. Maximum of 30 points

d. Previous related projects. Maximum of 25 points

SELECTION AND CONTRACT DOCUMENT

The Town, at its discretion, may select a firm outright or select a finalist(s) for in-person and/or virtual interviews. Upon identification of the three most qualified/highest ranking firms, the price proposals for those firms only will be opened. The Price Proposal may result in re-ranking and affect final selection.

When the contract is executed by both parties, the Consultant will be instructed to commence providing the work outlined in the contract. All information, data, documents, photos, computer records, and other materials of any kind acquired or developed by the consultant pursuant to this project shall be the property of the Town of Middletown. If the Town is unable to reach agreement with the highest-ranking firm, the Town will enter into negotiations with the next highest-ranking firm.

Separate Attachments

The following attachments are part of the RFP:

1. SRF State Insert BABA DW&WW – Nov 23
2. Guidance for AE Agreements (7-11-11)
3. 07.04 Preliminary Environmental Screening Checklist
4. Project Consistency Report Questions A and B

Appendix A: Insurance Requirements

The following insurance policies are required to be held by

1. Workers' Compensation
   Workers' compensation insurance as required by state statute, and employers' liability insurance covering all Grantee or Subcontractor employees acting within the course and scope of their employment.

2. General Liability
   Commercial general liability insurance covering premises operations, fire damage, independent contractors, products and completed operations, blanket contractual liability, personal injury, and advertising liability with minimum limits as follows:
   a. $1,000,000 each occurrence;
   b. $1,000,000 general aggregate;
   c. $1,000,000 products and completed operations aggregate; and
   d. $50,000 any one fire.

3. Automobile Liability
   Automobile liability insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of $1,000,000 each accident combined single limit.

4. Cyber/Network Security and Privacy Liability
   Liability insurance covering civil, regulatory, and statutory damages, contractual damages, data breach management exposure, and any loss of income or extra expense as a result of actual or alleged breach, violation, or infringement of right to privacy, consumer data protection law, confidentiality or other legal protection for personal information with minimum limits as follows:
   a. $1,000,000 each occurrence; and
   b. $2,000,000 general aggregate.

5. Professional Liability Insurance
   Professional liability insurance covering any damages caused by an error, omission or any negligent act with minimum limits as follows:
   a. $1,000,000 each occurrence; and
   b. $1,000,000 general aggregate.

6. Additional Insured
   The Town of Middletown shall be named as additional insured on all commercial general liability policies (leases and construction contracts require additional insured coverage for completed operations) required of Grantee and Subcontractors.

Attachment 1 PFAS Monitoring Data

Source: Well 22
(Drinking Water)(Grab)

Collected: 4/19/2023 12:18:00PM

Data Analyzed by: Summit Environmental Technologies, Inc.:

Lab ID	Parameter	Result	Units	MRL	MDL	Prepared	Analyzed	Analyst	Qual	Method
FXC0679-01	11ClPF3OUdS	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	9CL-PF3ONS	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	ADONA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	HFPO-DA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	N-EtFOSAA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	N-MeFOSAA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFBS	4.35	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH		EPA 537.1
FXC0679-01	PFDA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFDoA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFHpA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	J	EPA 537.1
FXC0679-01	PFHxA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	J	EPA 537.1
FXC0679-01	PFHxS	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	J	EPA 537.1
FXC0679-01	PFNA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFOA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFOS	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	J	EPA 537.1
FXC0679-01	PFTeDA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFTrDA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1
FXC0679-01	PFUnA	<3.58	ng/L	3.58	3.58	05/03/23 10:00	05/20/23 02:11	AEH	U	EPA 537.1

Source: Well 23
(Drinking Water)(Grab)

Collected: 4/19/2023 12:24:00PM

Data Analyzed by: Summit Environmental Technologies, Inc.:

Lab ID	Parameter	Result	Units	MRL	MDL	Prepared	Analyzed	Analyst	Qual	Method
FXC0680-01	11ClPF3OUdS	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	9CL-PF3ONS	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	ADONA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	HFPO-DA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	N-EtFOSAA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	N-MeFOSAA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	PFBS	5.08	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH		EPA 537.1
FXC0680-01	PFDA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	PFDoA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	PFHpA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	J	EPA 537.1
FXC0680-01	PFHxA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	J	EPA 537.1
FXC0680-01	PFHxS	3.91	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH		EPA 537.1
FXC0680-01	PFNA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	PFOA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	J	EPA 537.1
FXC0680-01	PFOS	6.22	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH		EPA 537.1
FXC0680-01	PFTeDA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	PFTrDA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1
FXC0680-01	PFUnA	<3.64	ng/L	3.64	3.64	05/03/23 10:00	05/20/23 01:33	AEH	U	EPA 537.1

Attachment 2 Source Water Quality

Source: 2 - Brookridge WTP
(Water)(Grab)

Collected: 05/09/24 10:32

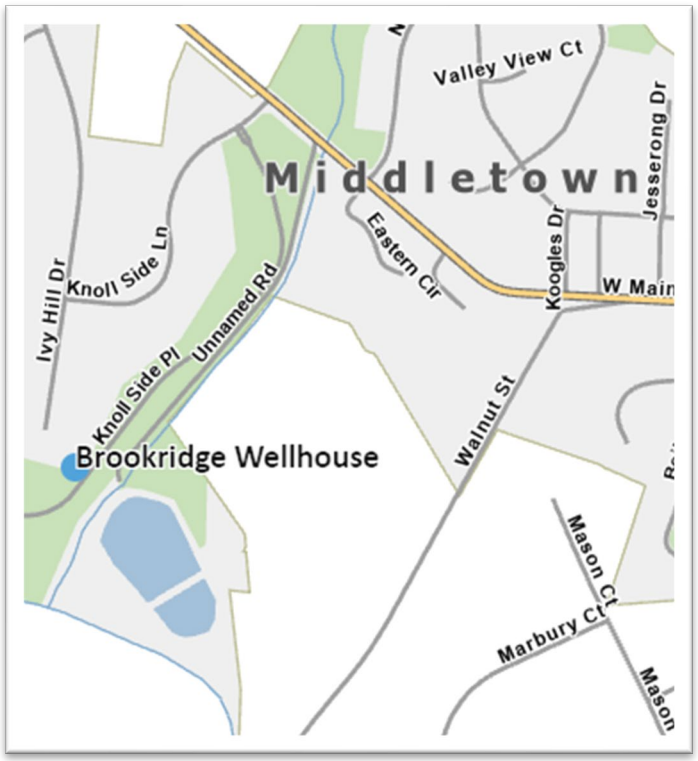
Data Analyzed by: Maryland Spectral Services:

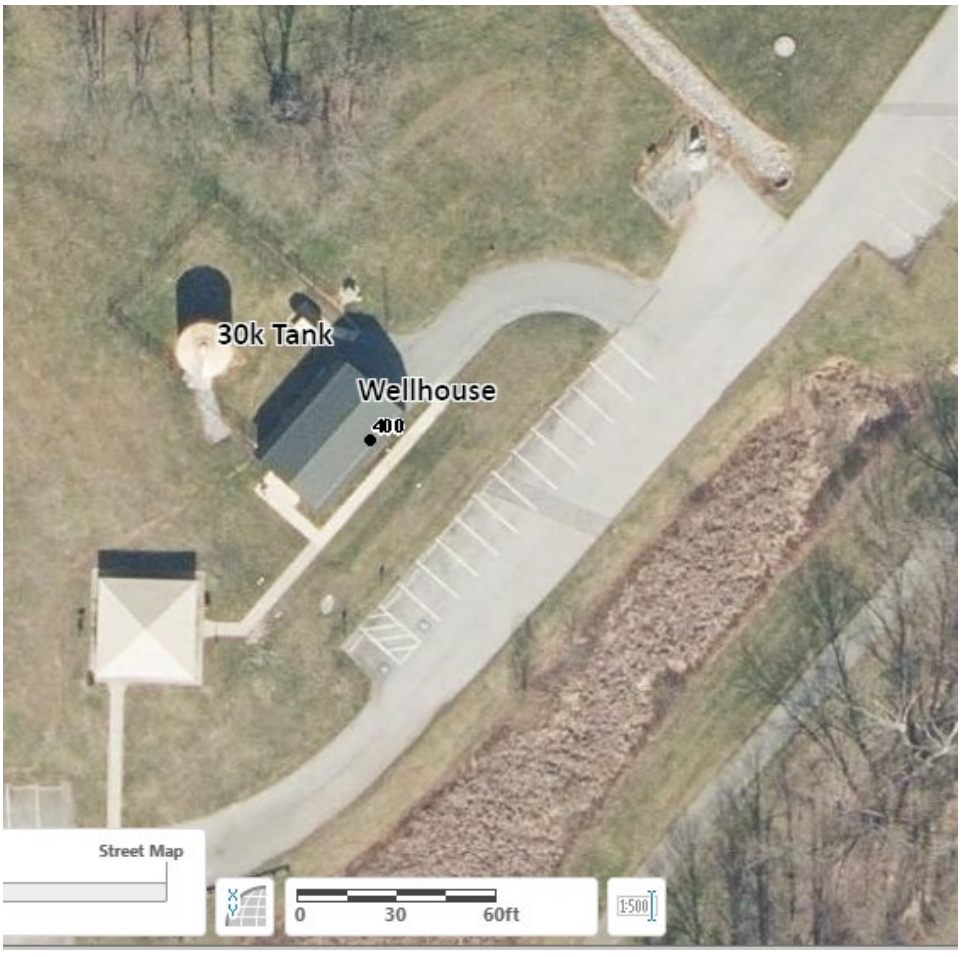
Lab ID	Parameter	Result	Units	MRL	MDL	DF	Prepared	Analyzed	Analyst	Qual	Method
FYE0387-02	Iron	<0.100	mg/L	0.100	0.100	1	05/14/24 08:41	05/16/24 12:54	AWH		EPA 200.8
FYE0387-02	Manganese	<0.00100	mg/L	0.00100	0.00100	1	05/14/24 08:41	05/16/24 12:54	AWH		EPA 200.8

Data Analyzed by:: Fredericktowne Labs:

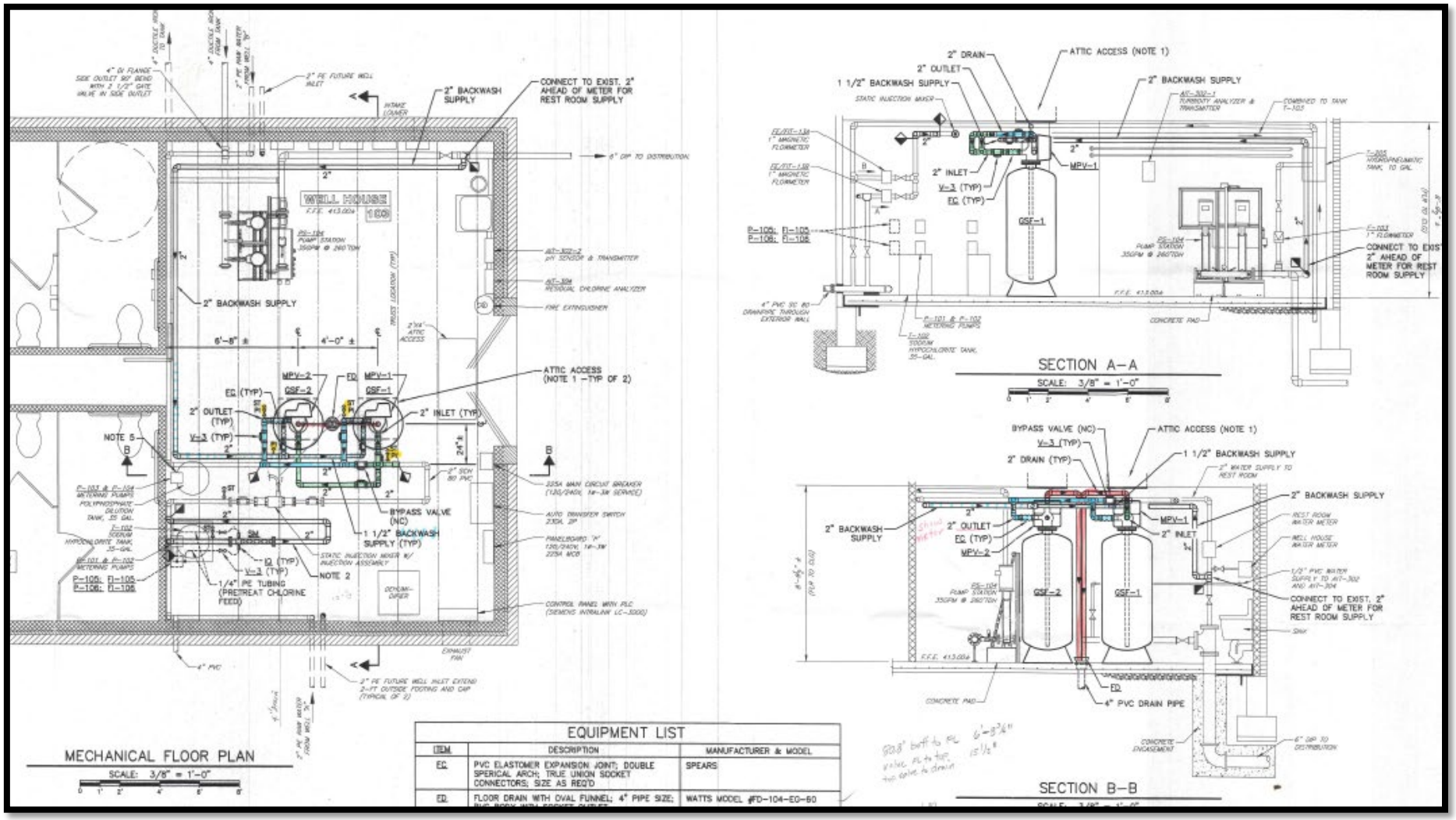
Lab ID	Parameter	Result	Units	MRL	MDL	DF	Prepared	Analyzed	Analyst	Qual	Method
FYE0387-02	Alkalinity - Total	132	mg/L	10.0	10.0	1	05/09/24 11:36	05/09/24 11:54	KMW		SM2320-B
FYE0387-02	Bacteria - Total Coliform	<1.0	MPN/100 mL	1.0	1.0	1	05/09/24 11:24	05/10/24 11:32	JD		9223B
FYE0387-02	Bacteria - E coli	<1.0	MPN/100 mL	1.0	1.0	1	05/09/24 11:24	05/10/24 11:32	JD		9223B
FYE0387-02	Hardness	90.0	mg/L	10.0	10.0	1	05/13/24 16:43	05/13/24 16:43	SR		SM2340-C
FYE0387-02	Chloride	72.9	mg/L	2.00	0.28	1	05/09/24 18:14	05/09/24 18:14	MW		300.0
FYE0387-02	Fluoride	<0.20	mg/L	0.20	0.03	1	05/09/24 18:14	05/09/24 18:14	MW		300.0
FYE0387-02	Sulfate	16.7	mg/L	5.00	0.69	1	05/09/24 18:14	05/09/24 18:14	MW		300.0
FYE0387-02	Solids - Total Dissolved	267	mg/L	1.00	1.00	1	05/13/24 12:34	05/13/24 12:44	KMW		2510 B
FYE0387-02	Solids - Total Suspended	<1.0	mg/L	1.0	1.0	1	05/10/24 09:16	05/10/24 15:16	JD		2540D
FYE0387-02	Turbidity	<0.10	NTUs	0.10	0.10	1	05/09/24 11:08	05/09/24 11:08	NM		180.1

Location Map - 400 Knollside Place, Middletown Maryland 21769





Existing Brookridge Fe/Mn Filter Layout



Existing Underground