



OFFICIAL NOTICE AND AGENDA

of a meeting of a City Board, Commission, Department, Committee, Agency, Corporation, Quasi-Municipal Corporation, or sub-unit thereof.

Joint Meeting: FINANCE COMMITTEE & WAUSAU WATER WORKS COMMISSION

Date/Time: **Tuesday, March 8, 2022 at 5:15 PM**

Location: **City Hall (407 Grant Street) - Council Chambers**

FIN Members: Lisa Rasmussen, Michael Martens, Dawn Herbst, Deb Ryan, Sarah Watson

WWW Members: Katie Rosenberg, Dawn Herbst, Jim Force, Joe Gehin, John Robinson

AGENDA ITEMS

- 1 Minutes of the previous meeting(s): (2/22/22)
- 2 Discussion and Possible Action regarding modifying the meal per diem rates and Professional Development Policy
- 3 Discussion and Possible Action authorizing the execution of Airport Ground Lease - Keith Mathews
- 4 Discussion and Possible Action authorizing the execution of Airport Ground Lease - MDB Ventures, LLC
- 5 Discussion and Possible Action regarding Budget Modification Sidewalk Construction Contract
- 6 Discussion and Possible Action regarding Budget Modification Recycling Fund transfer
- 7 Discussion and Possible Action regarding Budget Modification Leaf Baler Contract
- 8 Discussion and Possible Action regarding creating a Paid Internship Program
- 9 Discussion and Possible Action regarding Budget Modification Bottled Water
- 5:45 PM - Joint Session with Wausau Water Works Commission**
- 10 Discussion and possible action on options for potential rapid response solutions and long term strategies to address PFAS compounds in Wausau's drinking water and funding for same

Adjourn

Lisa Rasmussen, Chairperson

This meeting is being held in person and via teleconference. The lines of those public members monitoring the meeting by phone will be muted during the meeting. Members of the media and the public may attend in person or by calling **1-408-418-9388**.

The Access Code is: 2497 163 9903 Password: Wausau1

Members of the public who do not wish to appear in person may view the meeting live over the internet on the City of Wausau's YouTube Channel <http://www.tinyurl.com/WAAMedia>, live by cable TV, Channel 981, and a video is available in its entirety and can be accessed at <https://tinyurl.com/WausauCityCouncil>. Any person wishing to offer public comment who does not appear in person to do so, may e-mail mary.goede@ci.wausau.wi.us with "Finance Committee public comment" in the subject line prior to the meeting start. All public comment, either by email or in person, will be limited to items on the agenda at this time. The messages related to agenda items received prior to the start of the meeting will be provided to the Chair.

NOTICE: It is possible and likely that members of, and possibly a quorum of members of the Committee of the Whole or other committees of the Common Council of the City of Wausau may be in attendance at the above-mentioned meeting. No action will be taken by any such groups.

This Notice was posted at City Hall and faxed to the Daily Herald newsroom 3/04/22 at 2:15 PM

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 (ADA), the City of Wausau will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs or activities. If you need assistance or reasonable accommodations in participating in this meeting or event due to a disability as defined under the ADA, please call the ADA Coordinator at (715) 261-6590 or ADAServices@ci.wausau.wi.us to discuss your accessibility needs. We ask your request be provided a minimum of 72 hours before the scheduled event or meeting. If a request is made less than 72 hours before the event the City of Wausau will make a good faith effort to accommodate your request.

Other Distribution: Media, (Alderpersons: Peckham, Neal, Kilian, Wadinski, McElhaney, Larson), *Rosenberg, *Jacobson, *Groat, Department Heads

Department of Public Works
and Utilities



Eric Lindman, P.E.

Director of Public Works and Utilities

TO: Wausau Waterworks Commission

FROM: Eric Lindman, P.E.
Director of Public Works & Utilities

DATE: March 8, 2022

SUBJECT: Possible PFAS Action Plan Scenarios

PFAS Action Plan Scenarios

Staff recommends option #1 below as it is the lowest risk option and moves to address PFAS with the new water treatment facility for a potential interim solution and long term solution.

1. Prepare a pilot study for removing PFAS (Currently in process)

a. Description

The utility would work with the current Drinking Water Treatment Facility (DWTF) engineer design team to plan and implement a pilot study for the removal of PFAS. The engineering team would prepare multiple PFAS removal processes and run them in parallel at the existing treatment facility. One treatment process would be using the proposed resin media for the DWTF.

b. Actions to implement

- Utility is working with consultant engineers to prepare plans and determine best media options for PFAS removal testing
- Plans shared with DNR for approval
- Plans will be shared with contractors/consultants to provide costs for materials and set up of the cylinders and test media
- Utility orders the cylinders and sets them up in the existing treatment facility

c. Timeline for implementation

- Plans and costs are determined
- Scope of services are able to evolve as we move forward and gather test data
- Funding approval consideration on March 8, 2022

- Begin pilot testing March 2022
 - Continue communication plan with city council, partners and rate payers as to timeline, results and implementation of removal strategy options as necessary.
- d. Funding**
- Consideration for ARPA funding or utility operating
- e. Staff concerns**
- None

2. Possible purchasing and make available bottled water & filter pitchers

a. Description

The utility would procure pitcher filters and/or bottled water for residents that may have concerns about PFAS. The utility would make these available for pick up.

b. Actions to implement

- Establish volume of bottled water to purchase
- Establish number of pitchers/filters to purchase

c. Timeline for implementation

- Funding approval March 8, 2022
- Anticipated delivery timeline TBD

d. Funding

- Funding through City budget
- In order for the Public Service Commission (PSC) to authorize utility revenues for purchase, a water utility rate case reviewed by the full PSC would be required, taking a minimum of 6 months and likely 9 to 12 months,.
- Staff has also looked into providing credit on utility bill for residents who purchase their own filter, PSC indicated that a credit on utility bills would also require a water rate case study reviewed by PSC, taking a minimum of 6 months and more likely 9 to 12 months.

e. Staff concerns

- There is only certain bottled water that is tested as PFAS free.
- The level of PFAS removal from over the counter carbon filters is unknown. The life of the filters is also unknown as this is based on water chemistry. No testing has been done with these filters with Wausau Water.
- The City would be distributing a water-treatment product to customers for the sole purpose of providing water < 20 ppt, but losing all control of its use and, in turn, effectiveness. This may lead to liability.

3. Establish multiple reverse osmosis filling stations around the city

a. Description

The utility would procure multiple mobile water filtering stations. These are reverse osmosis units that may be placed at locations where water connection is available and the units may be housed indoors. Each mobile station would have water from the distribution system connected to it and it would provide a defined number of treated gallons of water per day. Residents could pull up to the station, fill water bottles or larger containers up to 5-gallons to take home.

b. Actions to implement

- Receive quotes from vendor for mobile units and for delivery and set up
- Establish strategic locations to ensure sites are accessible for the entire community
- Establish number of units to order based on determined locations
- Receive quotes for up to a 12-month maintenance contract

c. Timeline for implementation

- Receive quotes for number of units to purchase and set up and establish 12-month maintenance contract
- Receive approval from DNR on plan implementation and necessary requirements.
- Funding approval once approved by DNR
- Anticipated delivery timeline TBD
- Continue communication with city council, commission and rate payers

d. Funding

- Funding through City budget
- PSC construction authorization is anticipated to be required, which takes 135 to 225 days under PSC rules. Commission staff is not aware of any provisions in state statutes or code that allows an exemption from PSC authorization for the construction of temporary water treatments systems, or their components.

e. Staff concerns

- Ability to ensure water at these stations remains safe to drink.
- DNR would consider these non-transient water systems as they would serve more than 25 individuals and therefore be required to be on a regular testing schedule.
- We would need confirmation from the vendors in writing these produce PFAS free water.

- Implementation in winter will require temporary heating and freezing prevention, makes establishing these stations much more challenging.
- Staff is concerned with disposal of the RO waste stream from each of these units.
- RO also removes disinfection and these units may require a form of disinfection upstream of the storage tanks.

4. Set up and deploy a carbon/IX filtration system for all distributed water

a. Description

The utility would rent/lease a large activated carbon or anion exchange treatment system that would be brought on site to the existing water treatment facility. This treatment system would likely consist of multiple large pressure tank units and be connected to the finished water exiting the treatment facility to remove PFAS. The treated water would then be pumped to the distribution system. This would be a secondary treatment system that would treat all or a portion of water distributed daily, up to 5 million gallons a day.

b. Actions to implement

- Prepare lease/agreement with vendor that has capability to provide these units.
- Prepare engineering plans for the location of the units and how the units will be connected to the water system.
- Receive approval of the plan implementation by the DNR and PSC
- Receive quotes for connection of the units

c. Timeline for implementation

- Anticipated delivery timeline TBD
- Set up and connections TBD

d. Funding

- Funding through City budget
- PSC construction authorization is anticipated to be required, which takes 135 to 225 days under PSC rules. Commission staff is not aware of any provisions in state statutes or code that allows an exemption from PSC authorization for the construction of temporary water treatments systems, or their components.

e. Staff concerns

- Challenges and concerns related to disinfection, corrosion control and monitoring.
- Challenges with agency approvals and then set up.

Memorandum



Date: March 8, 2022

To: Eric Lindman

From: Andrew Dow, Mike Gerbitz, Susan Wojtkiewicz

Re: Rapid Response Strategies
Temporary Full-Scale Treatment at Existing DWTF

This memo provides information about a potential, full-scale rapid response strategy to reduce PFAS concentrations in Wausau's drinking water. The strategy would employ temporary, supplemental treatment equipment at the existing drinking water treatment facility (DWTF). The equipment would be sized to provide PFAS-removal of all water produced by the DWTF and distributed to customers [up to 6.8 million gallons per day]. The following information is supplied in this memo to support the City in making a decision about whether to pursue a temporary, full-scale strategy like the one outlined and illustrated here.

- **Implementation:** What would this temporary treatment solution look like?
- **Cost:** What would this solution be likely to cost?
- **Schedule:** How long would it take to implement this solution?

Implementation

Design Basis

The design basis for the temporary treatment system is summarized in Table 1. The temporary treatment system would consist of three pairs of ion exchange vessels. The vessels within each pair can be operated in series or parallel. Operating in series is more common in permanent installations as it better facilitates management of resin bed life and replacement. For a temporary installation constrained by existing pump capacities and hydraulic conditions, operating the vessels in parallel is a more feasible option because it consumes less pressure. Based on data available at this time, we believe that the existing high service pumps can pump through the temporary treatment system and into the distribution system if the ion exchange vessels are operated in parallel. If the City decides to pursue a full-scale, rapid response strategy, we recommend immediate field testing of the high service pumps to measure flow rates and power draws over a range of back-pressure conditions. It is important to collect this data given the limited records available for the existing 60-year-old pumps. The cost and implementation schedule will increase if high service pump modifications or additional booster pumps are required.

Table 1: Design Basis

Parameter	Units	Constant	Expected Average Flow Condition	Maximum Flow Condition
Flow Rate	mgd		4.5	6.8
Flow Rate	gpm		3,125	4,722
Number of Vessel Pairs		3		
Total Number of Vessels		6		
Operating Mode	Parallel/Series	Parallel		
Flow per Vessel Pair	gpm		1,042	1,574
Vessel Diameter	ft	12		
IX Resin Volume per Vessel	cu ft	300		
Empty Bed Contact Time	min		4.3	2.9
Hydraulic Loading Rate	gpm/ft ²		4.6	7.0
Pressure Loss per Vessel	psig		3.5	6.0

Scope of Construction

Conceptual drawings depicting a temporary, full-scale ion exchange system are attached. The proposed scope of construction reflected in the attached drawings and in the opinion of probable initial cost is delineated below.

- Concrete equipment pad located in front of the existing DWTF adjacent to the pumping room
- 8-ft tall chain-link security fence along the two exposed sides of the equipment pad
- Six, 12-foot diameter ion exchange vessels
- Array of 5-micron, pre-treatment cartridge or bag filters to protect the ion exchange resin from fine solids that could carry over from the existing treatment process
- New pipe and fittings fabricated from carbon steel or stainless steel depending on material availability
- Relocated sodium hypochlorite and aqua ammonia injection points for chloramine disinfectant residual feed downstream of ion exchange
- Static mixer downstream of the relocated in-line disinfectant feed

Performance

The temporary treatment system depicted in this memo would be capable of removing PFOA and PFOS to a combined concentration below the standard of 20 parts per trillion (ppt) recommended by the Wisconsin Department of Health Services (DHS). The expected performance is based on a particular supplier's evaluation of the water characteristics relative to data on performance of the resin when treating other water supplies. As an expedited, full-scale rapid response strategy, this solution would likely be implemented without prior testing with Wausau's water. While the probability of success is considered extremely high, suppliers are unlikely to provide a performance guarantee without testing.

Cost

An opinion of probable initial cost, and the quoted monthly rental fee, are summarized in Table 2. Additional cost information of relevance is provided in Table 3. We worked the ion exchange equipment supplier and with several contractors to develop these cost opinions.

Table 2: Cost Opinion Summary

Item	Cost (Potential Low) ¹	Cost (Potential High) ²
Equipment, Installation, Mobilization and Demobilization	\$1,600,000	\$1,900,000
Contingency (Treatment Equipment – 5%, Other – 15%)	\$160,000	\$200,000
Engineering (10%)	\$180,000	\$210,000
Total Initial Cost Opinion³	\$1,940,000	\$2,310,000
Monthly Cost (Equipment Rental)	\$41,000	\$41,000

¹Assuming designation as an emergency contract without public funding requirements

²Assuming applicability of funding (wage rates and reporting) requirements associated with state revolving loan program or similar program

³Add \$450,000 if including a building to enclose the temporary treatment equipment.

Table 3: Additional Cost Information

Item	Cost
Equipment Buy-Out Option ¹	\$825,000
Rental Credit toward Equipment Buy-Out	25% of Total Rental Fees Paid
Resin Re-bed Cost (Entire System) ²	\$750,000
Approximate Resin Disposal Cost (Entire System) ³	\$60,000

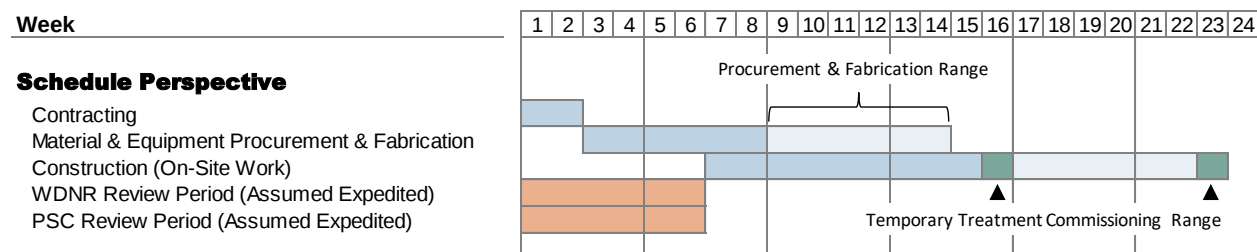
¹Vessels only (does not include new/replacement resin)

²Removal of the ion exchange resin and replacement with new resin would likely be required if relocating the vessels for continued use at the new DWTF.

³Assuming landfill disposal contracted through the resin supplier.

Schedule

We worked closely with several contractors to confirm a realistic schedule range if this project were constructed as an “emergency” project. Scenarios that bracket this range are shown below.



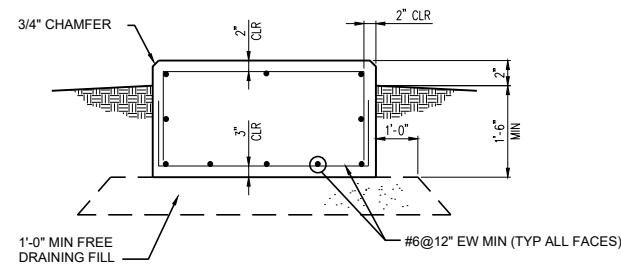
Fabrication of pipe and fittings (and procurement of the raw material) is the most significant factor in schedule requirements and schedule uncertainty. A conventional public bidding process would add 4-6 more weeks to the schedule.

Wisconsin law requires that municipalities bid public construction projects. However, bid law statutes also provide an exemption for public emergencies. Public construction contracts for the “repair and reconstruction of public facilities” may be done without bidding “when damage or threatened damage thereto creates an emergency, as determined by resolution of the board of public works or board of

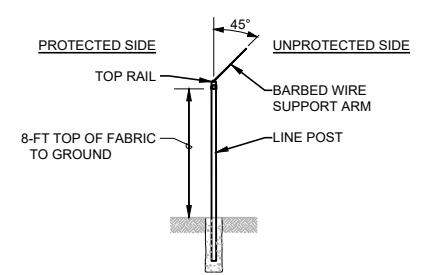
public utility commissioners, in which the public health or welfare of the city is endangered” (Wis. Stat. § 62.15(1b)).

The proposed work will require approval by Wisconsin Department of Natural Resources (DNR) and Wisconsin Public Service Commission (PSC). DNR and PSC reviews will run concurrently. Wis. Adm. Code Chapter NR 108 allows DNR up to 90 days to approve plans for improvements to a public water system. Drinking water treatment systems in excess of \$432,000 required PSC construction authorization (Wis. Admin. Code § PSC 184.03). PSC has up to 45 days to review a construction authorization application for completeness and then up to 90 days to act on the application if the authorization does not require a hearing by the full commission (Wis. Stat. § 196.49(5r)). PSC has up to 180 days to act on the application if a Commission hearing is required (Wis. Stat. § 196.49(5r)).

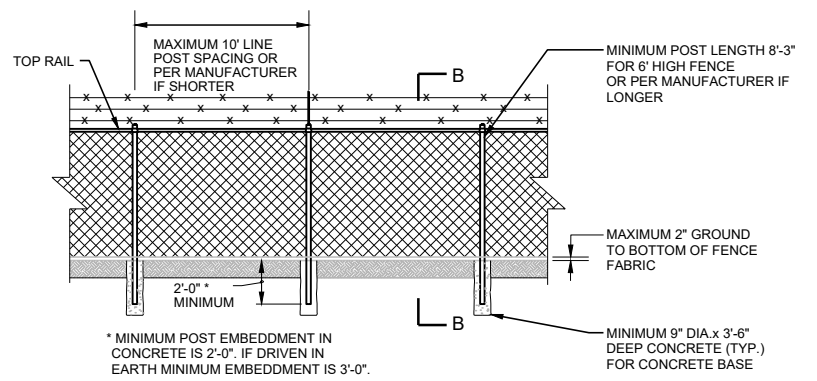
Due to the long timeframes allotted by statute for both DNR and PSC reviews, political advocacy will be key to expediting these reviews in a timeframe relevant for implementation at the existing DWTF.



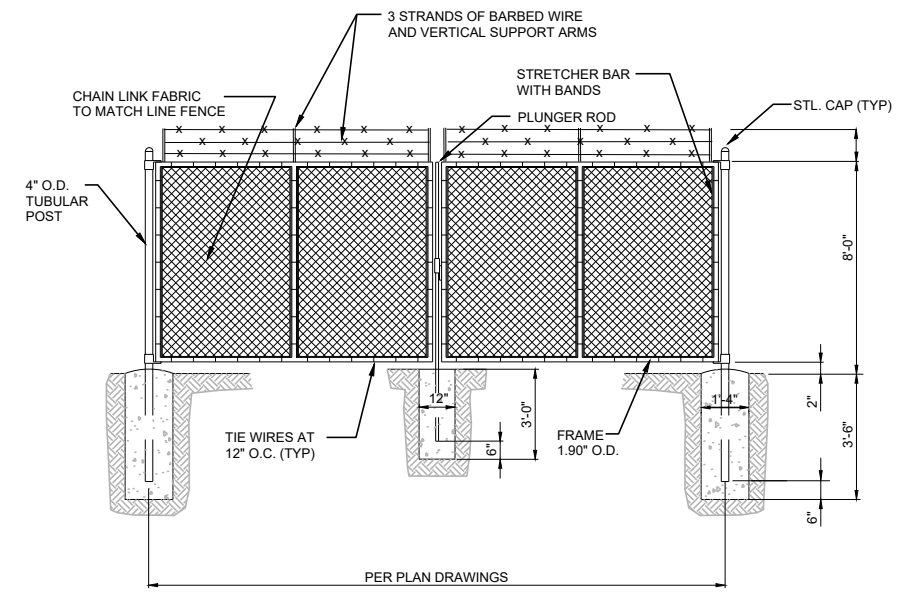
EQUIPMENT PAD DETAIL
NTS



SECTION "B"

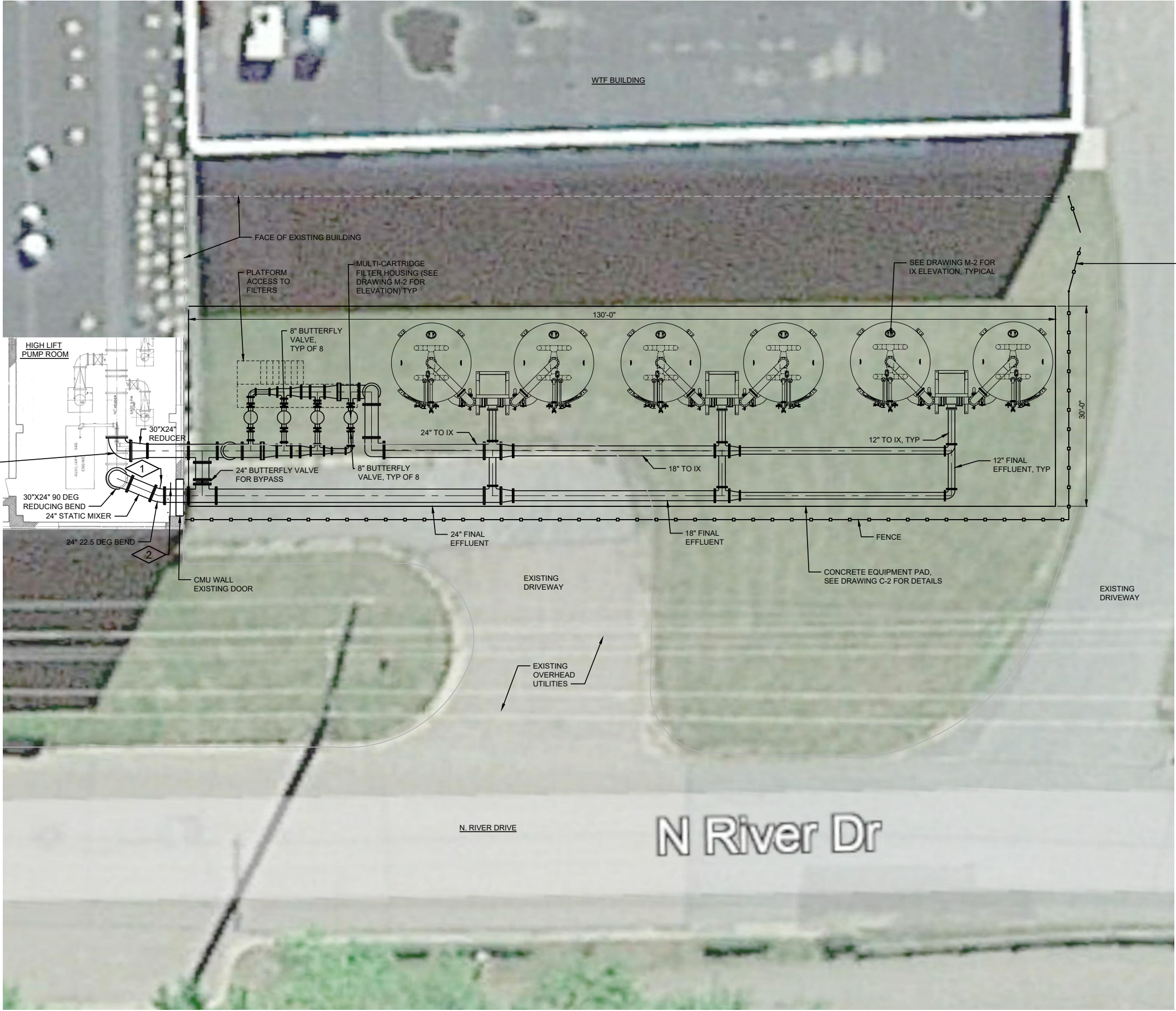


**CHAIN LINK FENCING
WITH BARBED WIRE DETAIL C705**
NTS

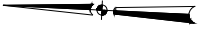


**DOUBLE SWING
GATE WITH BARBED WIRE C708**
NTS

Revision Number	Revision Description	Drawn By	Checked By	Date



- PLAN NOTES:**
1. AQUA AMMONIA
 2. SODIUM HYPOCHLORITE



14-FT WIDE
DOUBLE
SWING GATE,
SEE DETAIL
DRAWING C-2

EXISTING
DRIVEWAY

CONCRETE EQUIPMENT PAD,
SEE DRAWING C-2 FOR DETAILS

EXISTING
OVERHEAD
UTILITIES

EXISTING
DRIVEWAY

24" FINAL
EFFLUENT

18" FINAL
EFFLUENT

FENCE

N. RIVER DRIVE

N River Dr

GRADE PLAN



CITY OF WAUSAU
EXISTING TREATMENT FACILITY
PFAS TREATMENT
WAUSAU, WISCONSIN

PFAS TREATMENT LAYOUT



Sheet No.

3

Drawing No.

M-1

Revision Description

Revision Number

Designed By

Drawn By

Checked By

Approved By

Filename

Project No.

Project Date

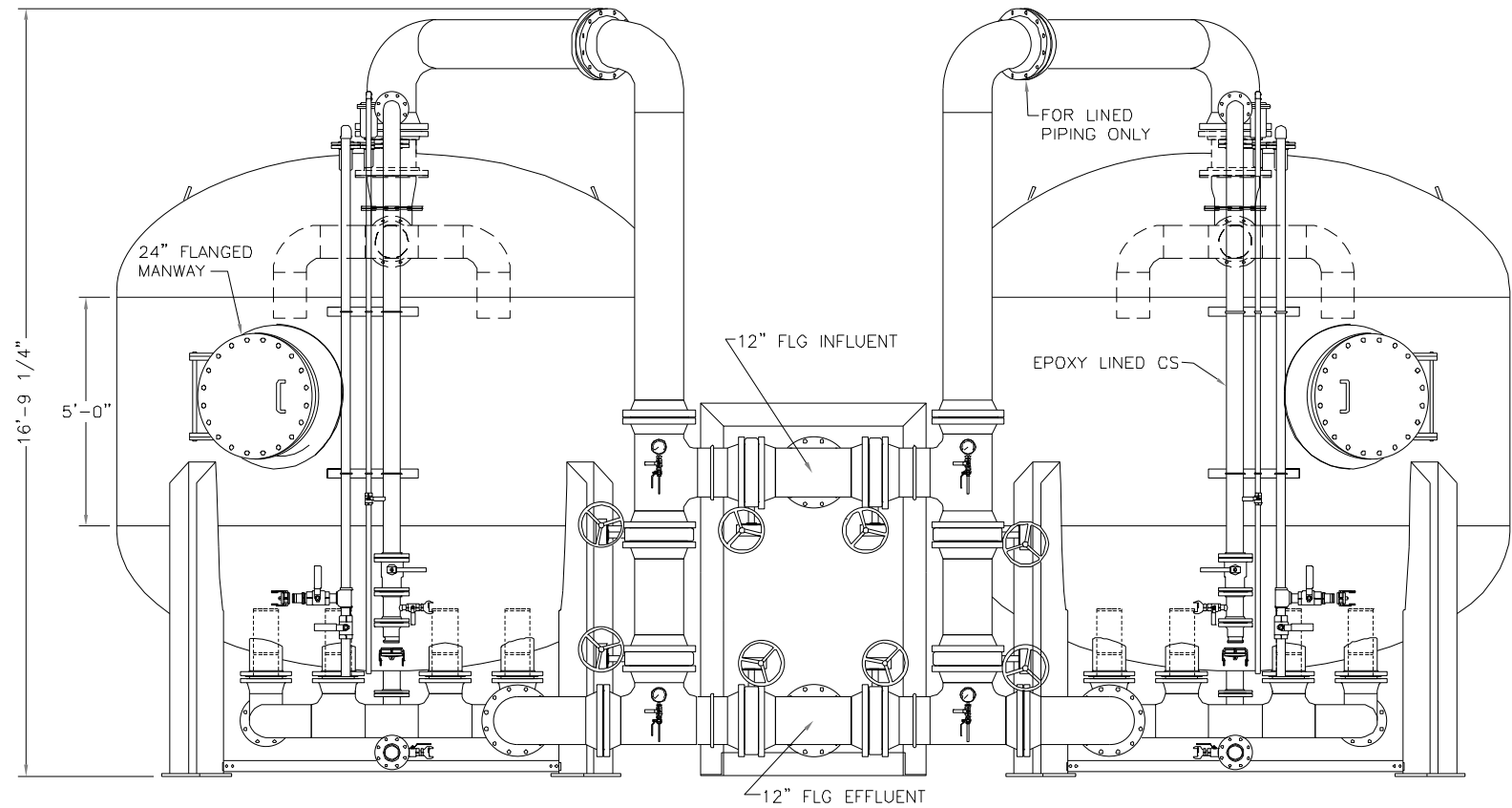
MAR. 2022

Date

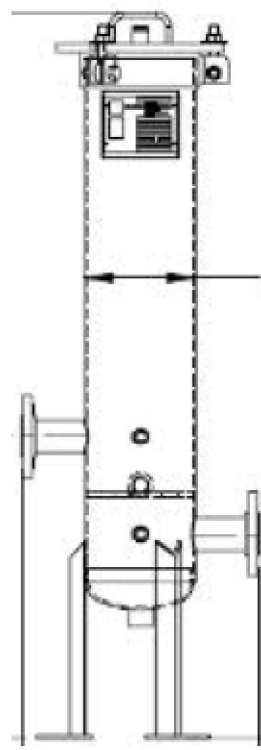
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DRAFT
03-08-2022
NOT FOR CONSTRUCTION



IX ELEVATION
NTS



**MULTI-CARTRIDGE
FILTER HOUSING ELEVATION**
NTS

CITY OF WAUSAU EXISTING TREATMENT FACILITY PFAS TREATMENT WAUSAU, WISCONSIN	PFAS TREATMENT DETAILS	Revision Number	Revision Description	Drawn By	Checked By	Date
DRAFT 03-08-2022 NOT FOR CONSTRUCTION		Designed By				
		Drawn By				
		Checked By				
		Approved By				
		Filename				
		Project No.				
		Project Date	MAR. 2022			
DONOHUE		Sheet No.	4			
		Drawing No.	M-2			