



October 14, 2020

Sarah Raposa  
Town Planner  
Town of Medfield MA  
459 Main Street  
Medfield, MA 02052

**RE: Town of Medfield Board Of Appeals on Zoning  
Application for Hearing for Construction of The  
Medfield Wells 3 & 4 Water Treatment Plant**

Dear Ms. Raposa,

Environmental Partners (EP), on behalf of the Town of Medfield Department of Public Works (Town), has enclosed herein an application for a board of appeals on zoning hearing for the proposed Medfield Wells 3 and 4 Water Treatment Plant (WTP). EP respectfully requests a special permit to construct a municipal use facility in a Residential Estate (RE) zoning district.

The site selected for the proposed water treatment plant (WTP) is a predominantly undeveloped, wooded area northwest of the existing public water supply well #3 and southeast of existing well 4. The Town currently maintains an access drive off Elm Street at 43 Elm Street, Medfield, MA (Book 4438, Page 648, Property ID 30-004), leading to Well Stations 3 and 4. The access drive connects to the Ralph Wheelock School parking lot. A locked steel swing gate resides at the limits of the school parking lot, limiting vehicular traffic on the access road to Town approved vehicles only. The site remains open to pedestrians utilizing a tributary of the Bay Circuit Walking Trail. The 18-foot wide asphalt paved drive is approximately 2,730 feet long. A soccer field resides on the north side of the access road, and railroad tracks parallel the access road to the south. After the soccer field, the access road intersects with a perpendicular access drive that runs north to south; and this road connects the driveways of Wells 3 and 4.

The existing 18-foot access road from Elm Street shall remain and all vehicles shall access the WTP through this existing roadway. The access road limits shall be adjusted at the intersection with the north to south access drive and proposed WTP driveway to allow for adequate vehicle access into the WTP site. Security lighting shall be mounted on the building to illuminate the driveway. The new driveway shall be sufficiently wide to provide access for a standard 39-foot aerial fire truck and a 45.5-foot WB-40 Intermediate Semi-Trailer for chemical deliveries. Chemicals are transferred into storage through individual fill stations on the south side of the building. The driveway includes five (5) parking spots, including one ADA accessible parking space. Parking does not limit fire or delivery vehicle access. The site shall include an underground sanitary tight tank, a standby generator, and propane fuel supply.

Site work shall be confined to approximately 1.2 acres to limit tree clearing and maintain a vegetative buffer around the access roads. The WTP building was oriented northeast to southwest to minimize the grading and site work within the 100-foot wetland buffer zone, and no grading or site work for the WTP takes place within the floodplain. The site grading reduces stormwater runoff and includes treatment and infiltration. Grades on paved areas (access roadway, driveway, parking area) shall typically be  $\pm 2\%$ . All paved areas are sloped so that runoff flows directly to the one of the two proposed bioretention basins. Basins are located to the north and south of the WTP, respectively. Slopes on graded landscaped or unpaved areas shall not exceed 3:1 (H:V). the stormwater management design is subject to the Board of Health and Conservation Commission regulatory approval, which shall be filed separately.

The WTP finished floor elevation is 161.5 feet. The edge of the pavement elevation around the driveway is approximately 160 feet. The top of the bioretention basins is approximately 154-feet. A cut and fill analysis determined the final grade elevations. Excavation volumes for the WTP foundation, backwash waste tank, sanitary tight tank, driveway subgrade, and bioretention basins are offset by the finished site grading to balance out cut and fill volumes. (see attached earthwork calculations). The driveway is 17-21 feet wide on the north and south sides of the building. The east side of the driveway is 45 feet wide to accommodate a large vehicle turning radius and provide access to the overhead door. The west side of the driveway is 60 feet wide to accommodate parking and a large vehicle turning radius. A chain-link fence (total 9.5 feet high) surrounds the WTP and driveway with a manual slide gate at the driveway entrance. No pedestrian gates are proposed.

Utility work along the existing access roads includes water main and underground electric and communications conduit between the well stations and the WTP. The proposed infrastructure shall be installed under the paved access road between the WTP and the well stations. Portions of this work occur within the 100-foot wetland buffer and the FEMA flood zone A. The Town shall self install a sewer force main along the access road to Elm Street. The force main will convey water treatment residuals from the WTP to the existing municipal sanitary sewer on Elm Street. The proposed residuals force main shall be installed off the shoulder of the access road where possible. Work at the existing well stations is limited to maintenance activities such as replacing the fence, roof, and internal equipment.

The attached application includes the following sections:

1. Locus map
2. Medfield Application for ZBA Application
3. Review of Medfield Zoning Regulations
4. Earthwork Calculations
5. 50% Progress Plans

EP will resubmit updated plans a week before the scheduled hearing date. If you have any questions or need any additional information, please contact me at 617-657-0282.

Sincerely,

A handwritten signature in blue ink, appearing to read "E. Kelley". The signature is fluid and cursive, with a large loop at the end.

Environmental Partners Group, Inc.

Eric A. Kelley, PE

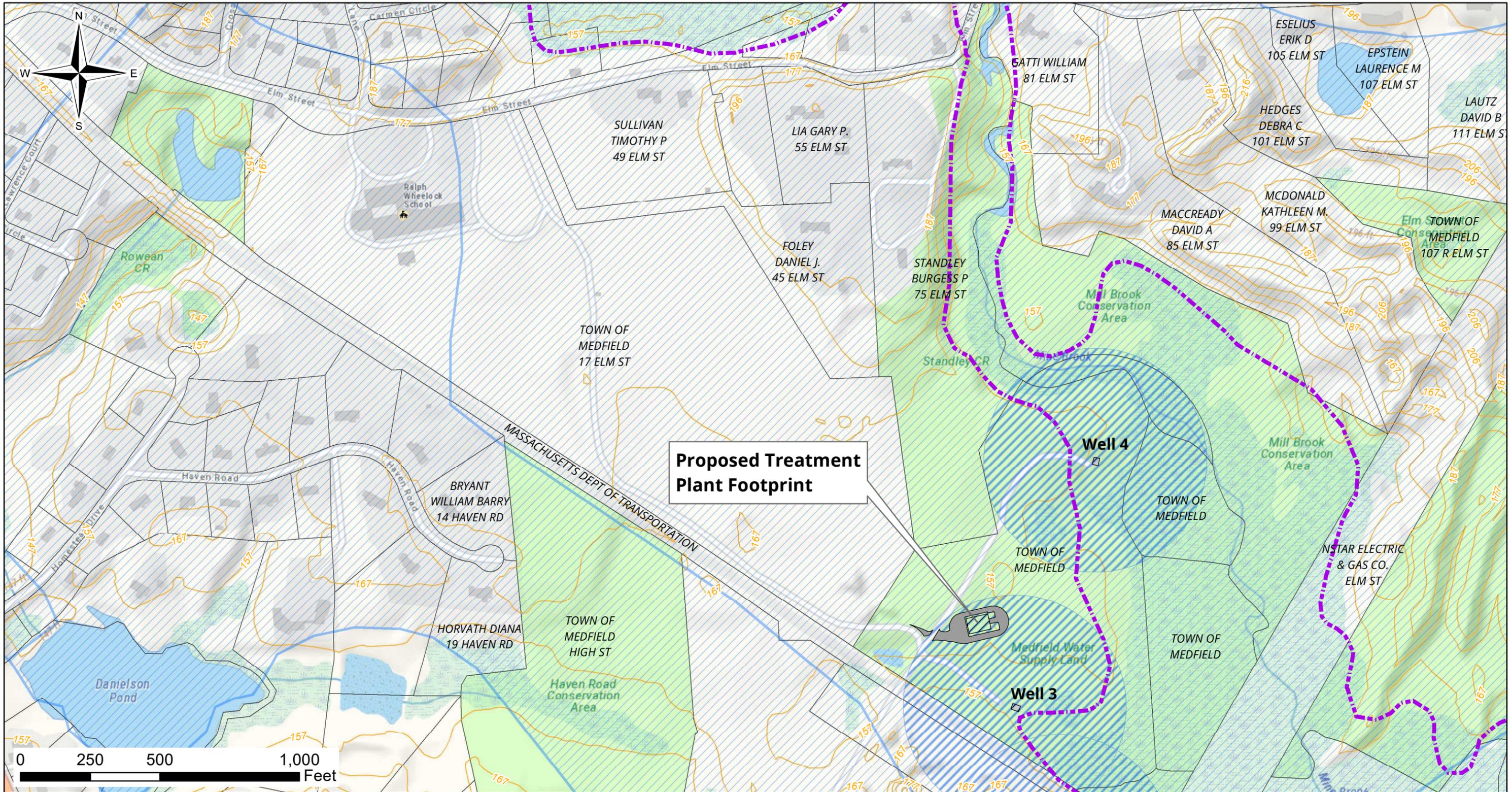
Project Manager

O: 617-657-0282

E: eak@envpartners.com

# ATTACHMENT 1

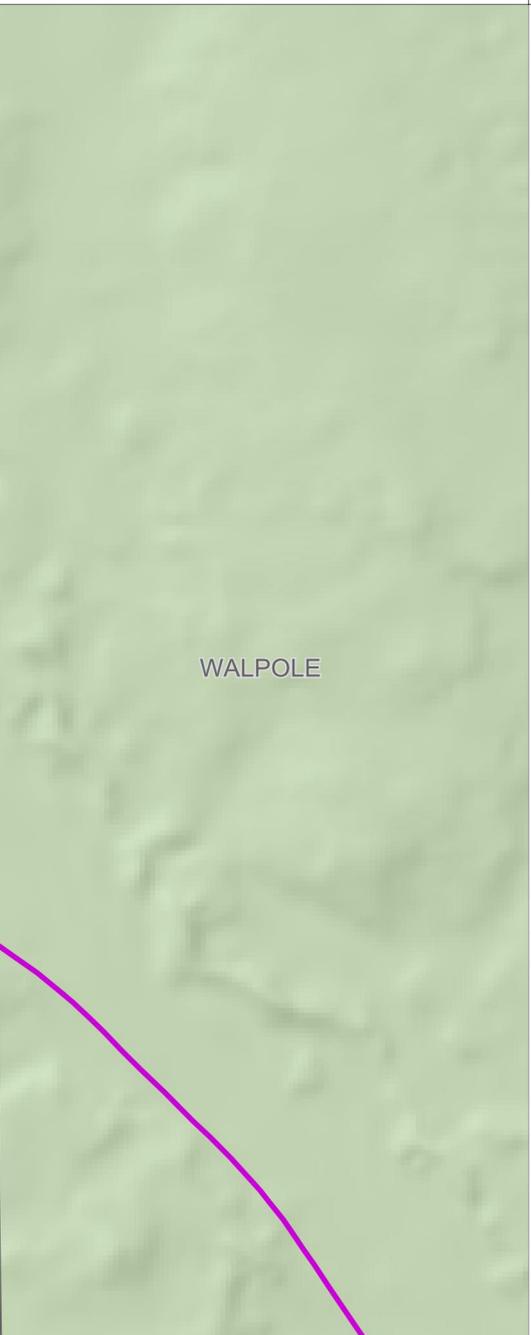
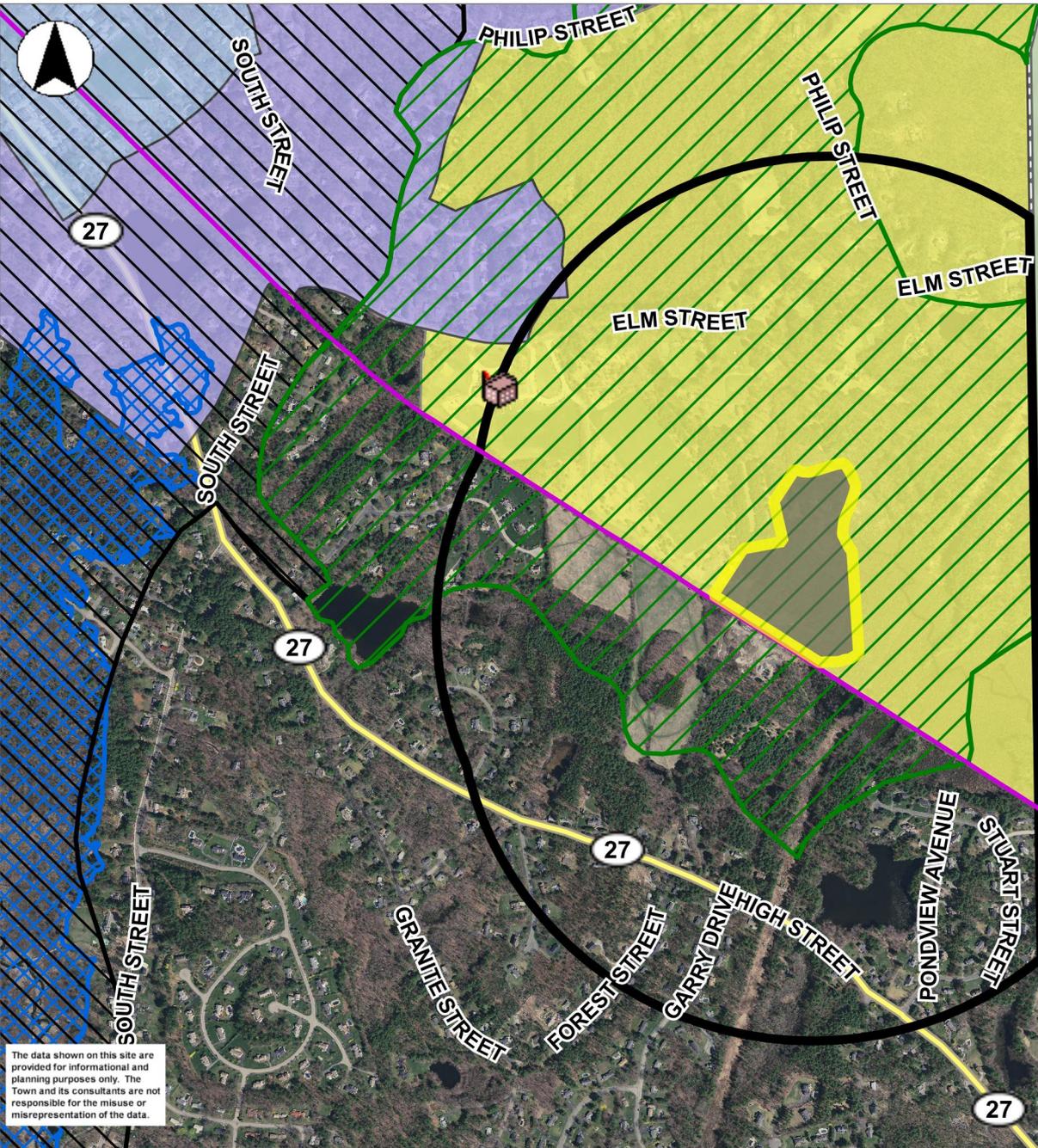
Locus Map



|   |  |   |  |   |   |
|---|--|---|--|---|---|
|  |  Proposed Pavement  | <b>DEP Wellhead Protection Areas</b><br> Zone I<br> Zone II |  FEMA 100-Yr Flood Zone<br> Tax Parcel<br> Elevation Contour (ft) | <h2 style="text-align: center;">Water Treatment Plant Locus Map</h2> <h3 style="text-align: center;">Medfield, Massachusetts</h3> <h3 style="text-align: center;">October 2020</h3> |  |
|   |  Building Footprint |   |  |   |   |



- MA Places
  - Fire Station
  - Police Station
  - Town Hall
  - Public Library
  - School
- MBTA Commuter Rail Station
- MBTA Commuter Rail
- 400' Radius of No Construction
- Well Protection District
- Primary Aquifer Zone
- Secondary Aquifer Zone
- Flood Plain
- Zoning Districts
  - Agricultural
  - Business
  - Business Industrial
  - Industrial Extensive
  - Residential Estate 80
  - Residential Urban 12
  - Residential Suburban
  - Residential Town 40
- Parcels for Orthos
- MA Highways
  - Interstate
  - US Highway
  - Numbered Routes
- Town Boundary
- Abutting Towns



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.



Printed on 09/14/2020 at 10:37 AM

MapsOnline

## **ATTACHMENT 2**

Town of Medfield Zoning Board of Appeals Application



# TOWN OF MEDFIELD

## BOARD OF APPEALS ON ZONING

459 Main Street, Medfield, MA 02052

### APPLICATION FOR HEARING

(TO BE FILLED OUT BY APPLICANT)

Phone: 508-906-3027

Fax: 508-359-6182

Date October 14, 2020

Name of Applicant or Appellant Town of Medfield, Department of Public Works

Mailing Address 55 N Meadows Road, Medfield, MA 02052  
City, State, Zip

Phone 508-906-3004

Email \_\_\_\_\_

The record title of said property stands in the name of: Town of Medfield Water Department

Whose address is: 459 Main Street, Medfield, MA 02052

Applicant is (owner, tenant, other): Owner

Location of Property 19 Elm Street Medfield MA 02052

Deed duly recorded in the Norfolk County Registry of Deeds:

Book 4438 Page 648 (or) Land Court Certificate # \_\_\_\_\_

Year lot created 1967 Plan of Land recorded as Book 4438 Page 648 Year 1967

Medfield Assessors Map 30 Lot 004 Zoning District RE Overlay? \_\_\_\_\_

Nature of application or appeal (Written summary of project; attach additional sheets if necessary):  
See Attached Cover Letter.

Applicable section(s) of Zoning Bylaw or General Law (State which, or if both, so state):

Use this box for additions/alterations to pre-existing non-conforming lots or structures:  
A special permit under MGL Chpt. 40A §9 and/or Medfield Zoning Bylaw Section 300-9.1.C.2. &/or a determination under M.G.L. Chpt. 40A §6 and/or Medfield Zoning Bylaw, Article 9, that proposed work will not be more nonconforming and/or a variance from Chapter 300b of the Zoning Bylaw.

Municipal Use building within an RE zoning District (Table of Use Regulations, Section 2.12)

Work within the Watershed Protection District & Aquifer Protection District

Reviewed by Building Commissioner: Signed \_\_\_\_\_ Date: \_\_\_\_\_

I hereby request a hearing before the Board of Appeals with reference to the above application. In the event that a Variance or Special Permit or other form of decision required by law to be recorded is granted, I will record the same with the Norfolk Registry of Deeds or Land Court.

I have read and accept the rules and fees of the "Rules of the Medfield Board of Appeals."

(Applicant) Signed \_\_\_\_\_ Printed \_\_\_\_\_

(Owner) Signed [Signature] Printed Kristie Tierney



# SECTION 6 FINDING WORKSHEET FOR ONE- & TWO- FAMILY RESIDENTIAL DWELLINGS

For Single & Two-Family Dwellings (per Zoning Bylaw §300-9.1.C.1): Please return this sheet with your building permit application to disclose if your lot or structure is nonconforming and to determine if your proposed plan requires a special permit by the ZBA. [Note: changes to structures or demolition of structures over 50 years old may require Historic Commission review pursuant to the [Demolition Delay Bylaw](#)]

Applicant's Name Town of Medfield Map 30 Lot 004  
Locus Address \_\_\_\_\_ Zoning District RE

Is this a teardown?  Yes /  No (teardowns may require ZBA review)

Aquifer Protection District?  Yes /  No [ If Yes:  Primary /  Secondary /  Well ]

The Aquifer Protection District may affect lot coverage thresholds. Please refer to Zoning Bylaw Article [16](#), check with your surveyor/engineer, or refer to the "maps" tab in the Assessors [GIS Database](#).

A note regarding plot plans: Plot plans should be current, show all dimensions for compliance with current zoning, and be stamped by a Registered Land Surveyor. Mortgage plans are not acceptable.

| MEASUREMENT<br>(Refer to <a href="#">Article 2</a> , Definitions, for various methodologies in calculating requirements) | REQUIRED<br>(Refer to <a href="#">Chapter 300b</a> and <a href="#">Chapter 300c</a> ) | EXISTING<br>(Refer to your <b>existing</b> site plan) | √<br>Or<br>X | PROPOSED<br>(Refer to your <b>proposed</b> site plan) | √<br>Or<br>X |
|--|---|---|--------------|---|--------------|
| Lot area   | 80,000 SF   | 956,382 SF  | ✓            | no change   | ✓            |
| Frontage   | 180 ft  | 0 ft  | ✗            | no change   | ✗            |
| Lot Width  | 200   | See attached  | ✓            | no change   | ✓            |
| Lot Depth  | 225   | See attached  | ✓            | no change   | ✓            |
| Perfect Square   | 180 x 180   | 475 x 475   | ✓            | no change   | ✓            |
| Front Yard Setback   | 40  | not applicable  | ✓            | 310 ft from WTP                                       | ✓            |
| Side Yard Setback  | 25  | not applicable  | ✓            | 255 ft from WTP                                       | ✓            |
| Rear Yard Setback  | 50  | not applicable  | ✓            | 395 ft from WTP                                       | ✓            |
| Floor Area Ratio   | Allowed 0.20  | 835 SF (>0.01)  | ✓            | 5256 SF (>0.01)                                       | ✓            |
| % Lot Coverage   | Allowed 10%   | 6%  | ✓            | 7%  | ✓            |
| Building Height  | 35 ft.  | 10 ft (well stations)                                 | ✓            | 25 ft (WTP)   | ✓            |

√ indicates that the dimension complies with current zoning / X indicates that the dimension does not comply with current zoning

THIS SECTION TO BE FILLED OUT BY THE BUILDING COMMISSIONER

- The proposed alteration will not increase the existing non-conforming nature of the structure.
- The proposed alteration will either intensify any existing nonconformities or result in additional nonconformities and requires a special permit from the Zoning Board of Appeals.

\_\_\_\_\_  
Building Commissioner

\_\_\_\_\_  
Date

cc: ZBA

Other notes:

**REQUIRED FINDINGS**  
*to be filled out by applicant*

**UTILITIES:**

Water:  Town  Well  
Sewer:  Town  Septic System

Notes:

Public Water Treatment Plant

Sewer for treatment waste, tight tank for sanitary waste

**FAMILY APARTMENTS:**

The Applicant acknowledges the provisions of Medfield Zoning Bylaw Section 300-14.10.I.(3) & (4) that a family Apartment Special Permit is temporary and subject to conditions of approval, including but not limited to annual an affidavit under the pains and penalties of perjury that the person(s) listed continues to reside within the Family Apartment. Future use of the space is contemplated as:

not applicable (N/A)

Name of person(s) to occupy the family apartment: \_\_\_\_\_

**ALL SPECIAL PERMITS:**

The Board of Appeals may grant a special permit if it concludes that a special permit is warranted by the application and the evidence produced at the public hearing and if it makes the following specific findings of fact, pursuant to [Medfield Zoning Bylaw Section 14.10](#):

(1) Overall design is consistent and compatible with the neighborhood, including as to factors of building orientation, scale, and massing. *(Describe the proposed construction in the context of the existing surroundings. If an addition, will the siding, windows, shingles etc. match existing. Does the proposal fit into the streetscape and larger area?)*

The current site is a predominantly undeveloped wooded area northeast of the Wheelock School. The proposed facility will not be visible from Elm Street, and a locked gate will restrict vehicular access at the Wheelock School parking lot. The site remains open to pedestrians utilizing a tributary of the Bay Circuit Walking Trail. The secluded nature of the proposed building location makes it compatible with the neighborhood along Elm Street.

(2) Vehicular traffic flow, access and parking and pedestrian safety are properly addressed such that the proposed use will not result in a public hazard due to substantially increased vehicular traffic or parking in the neighborhood. *(Describe additional vehicles and parking spaces required by the proposal as well as road access on public or private ways and any other information. Commercial or multi-family residential projects may require a traffic study prepared by a registered engineer.)*

Additional vehicular traffic is not a concern with this type of facility. The proposed building shall be staffed on a part-time basis with 1-2 personnel. Chemical and equipment deliveries are expected to remain relatively similar to their current delivery schedule.

(3) Drainage, utilities and other infrastructure are adequate or will be upgraded to accommodate development. *(Describe utility connections potential impacts to public wells, aquifers, municipal water mains, nearby private wells.)*

Stormwater shall be treated onsite with bioretention ponds designed to state and local standards. The water and electric infrastructure shall be upgraded under the scope of the Project.

(4) The proposed use will not have any significant adverse effect upon properties in the neighborhood, including property values. *(Describe any aspects of the project that could be unsafe to those in and around the property i.e. manufacturing, research and design. Commercial or multi-family residential projects may require an analysis prepared by a real estate appraiser.)*

No adverse effects on properties in the neighborhood are expected.

(5) Project will not adversely affect or cause substantial damage to any environmentally significant natural resource, habitat, or feature or, if it will, proposed mitigation, remediation, replication, or compensatory measures are adequate. *(Describe potential impacts to natural resources (tree clearing, proximity to wetlands, etc. If Conservation Commission approval is necessary, please attach approval to application.)*

Although the Project is located in and near environmentally sensitive resource areas, it is the design intent to minimize impacts to these surrounding areas by treating stormwater runoff and limiting the area of disturbance.

(6) Number, height, bulk, location and siting of building(s) and structure(s) will not result in abutting properties being deprived of light or fresh air circulation or being exposed to flooding or subjected to excessive noise, odor, light, vibrations, or airborne particulates. *(Describe existing and proposed drainage systems and conditions. All stormwater should be collected/treated/infiltrated on-site. If Board of Health approval is necessary, please attach approval to application.)*

Abutting properties shall not be disrupted.

(7) Water consumption and sewer use, taking into consideration current and projected future local water supply and demand and wastewater treatment capacity, will not be excessive. *(Describe existing and proposed water and wastewater systems and conditions.)*

The plant will enhance the Towns public water supply and allow the Town to further diversify its water sources. The plant will send waste to the towns wastewater treatment system overnight when sewerage demands are at their lowest.

(8) The Proposed use will not create any hazard to public safety or health in the neighborhood. *(Describe proposed use and ancillary specifications relating to any noise or vibration producing conditions or mechanical systems, describe site lighting (all new lighting should be "dark-sky compliant"), and describe potential odors to be produced on site. Nuisance can be subjective but describe potential factors and mitigation measures.)*

The project will not create any hazard to public safety or health.

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(9) If public sewerage is not provided, plans for on-site sewage disposal systems are adequate and have been approved by the Board of Health. *(Describe existing and proposed wastewater systems and conditions.)*

An onsite tight tank shall be provided for local plumbing waste.

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**VARIANCES:** *(See MGL c. 40A Section 10)* Attach additional sheets if necessary.

1. What circumstances exist relating to the shape, topography, or soil conditions of the subject property, which do not generally affect other land in the zoning district?

N/A

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2. What substantial hardship is caused by the circumstances listed above, when the Medfield Zoning Bylaw is applied?

N/A

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3. State why you believe the grant of relief would not nullify or derogate from the intent of the Zoning Bylaw.

N/A

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**PARKING FOR MULTI-FAMILY AND COMMERCIAL PROPOSALS:**

**REFER TO [300-8.1, Table of Off-Street Parking Standards](#)**

| <b><u>USE CATEGORY</u></b><br>(ACCESSORY DWELLING,<br>RETAIL, OFFICE,<br>SERVICE, ETC.) | <b><u>REQUIRED # OF SPACES</u></b><br>(UNIT, FLOOR AREA,<br>EMPLOYEES, SEATS,<br>CLASSROOM, BAYS, ETC.) | <b><u># OF SPACES</u></b><br><b><u>PROVIDED ON PLAN</u></b> | <b><u>TOTAL SPACES</u></b><br><b><u>AVAILABLE FOR</u></b><br><b><u>USE:</u></b> |
|---|---|---|---|
| Manufacturing or  | 1 parking space per   | 5 parking spaces  | 5   |
| Industrial Establishment  | 1,000 SF of floor space   | including one ADA   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |

## **ATTACHMENT 3**

### Review of Medfield Zoning Regulations

# TOWN OF MEDFIELD BOARD OF APPEALS ON ZONING APPLICATION FOR HEARING FOR CONSTRUCTION OF THE MEDFIELD WELLS 3 & 4 WATER TREATMENT PLANT

Listed below are the applicable requirements of the Town of Medfield Division 1 Bylaws, Part II General Legislation, Chapter 300 Zoning. For the proposed Medfield Wells 3 & 4 Water Treatment Plant (Project)

## Article I - Scope

Not Applicable (N/A)

## Article 2 – Definitions

N/A

## Article 3 – Establishment of Zoning Districts

The project location is on lot 19 Elm Street, Medfield MA,

|                          |  |
|--------------------------|--|
| <b>Zoning District</b>   | RE (Residential Estate)  |
| <b>Overlay Districts</b> | Primary Aquifer Zone,<br>Zone 1 Well Protection District,<br>400' Radius of No Construction (well 3) |

## Article 4 – Interpretation & Application

N/A

## Article 5 – Use Regulations

### Zoning District Special Permit

Environmental Partners (EP), on behalf of the Town of Medfield Department of Public Works (Town), respectively requests the issuance of a special permit for the construction of a municipal use building in an RE zoned district, in accordance with the Town of Medfield Table of Use Regulations (300 Attachment 1) Section 2.12.

The above request is continued under Article 14, as defined by the Table of Use Regulations.

## Article 6 – Area, Height, and Bulk Regulations

Excerpt from the Table of Area Regulations (300 Attachment 2)

|                           | Area (SF)                        | Perfect Square (ft.) | Lots             |             |             | Yards       |            |            |
|---------------------------|----------------------------------|----------------------|------------------|-------------|-------------|-------------|------------|------------|
|                           |                                  |                      | Frontage (ft.)   | Width (ft.) | Depth (ft.) | Front (ft.) | Side (ft.) | Rear (ft.) |
| <b>RE Zoning District</b> | 80,000                           | 180 x 180            | 180              | 225         | 200         | 40          | 25         | 50         |
| <b>Project</b>            | 4,469.5 (bldg.)<br>956,382 (lot) | 475 x 475            | N/A <sup>1</sup> | 475         | 475         | 310         | 255        | 395        |

<sup>1</sup>Lot has no frontage. It connects to Elm Street from the Wheelock School Parcel (33-092), Owned by the Town of Medfield

Excerpt from the Table if Height and Bulk Regulations (300 Attachment 3)

|                           | Maximum Height (ft) | Permitted Height (Stories) | Maximum Floor Ratio Including Accessory Buildings | Maximum impervious Lot Coverage | Multifamily Dwelling Minimum Unit Floor Area (SF) |
|---------------------------|---------------------|----------------------------|---|---------------------------------|---|
| <b>RE Zoning District</b> | 35                  | 2-1/2                      | 0.20  | 10% SAPO (15%)*                 | Not Permitted                                     |
| <b>Project</b>            | 25                  | 2                          | >0.01   | 7%                              | N/A   |

- SAPO = Secondary Aquifer Protection Overlay maximum requirement of 15% or 2,500 SF (whichever is greater) exceeds the RE zone requirement of 10%.

The Project, as proposed, confirms to all area height and bulk regulations of Article 6.

## Article 7 – Open Space Residential Zoning

N/A

## Article 8 – Off-Street Parking and Loading Requirements

|   | Use                                       | Requirement  | Proposed                                 |
|---|---|--|--|
| <b>300-8.1 Off-Street Parking Standards</b> | Manufacturing or Industrial Establishment | 1 parking space per 1,000 square feet of floor space | 5 parking spaces, including 1 ADA Space. |

The Project includes provisions for a 12-foot overhead door located at the rear of the structure and a turn-around for a 45.5 foot WB-40 Intermediate Semi-Trailer for chemical deliveries.

The Project, as proposed, conforms to all off-street parking and loading requirements of Article 8.

## Article 9 – Nonconforming Uses, Structures and Lots

N/A

## Article 10 - Floodplain District

The existing well house 4 is located within the floodplain district (Zone A). Proposed maintenance and utility work near the existing well house 4 is located within this floodplain district. This work shall not be subject to a special permit per Ch. 300 Article 10.3 C.

“Maintenance of municipal facilities, such as waterworks, pumping stations, existing public ways and parks, shall not be subject to a special permit under this Article.”

## Article 11 – Watershed Protection District

The existing well 3 and well 4 houses are within proximity to Mine Brook and adjacent wetlands. All work proposed within the facility of Mine Brook and adjacent wetlands shall not be subject to a special permit per Ch. 300 Article 11.3 C.

“Maintenance of municipal facilities, such as waterworks, pumping stations, existing public ways and parks, shall not be subject to a special permit under this Article.”

## Article 12- Rules and Regulations Governing Earth Removal Uses

Cut & fill was calculated and balanced for the Project, as proposed, to limit the disruption of the natural contours of the site. The calculations and assumptions are included as Attachment 4. Topsoil and unsuitable material shall be removed from the site, and special fill for bioretention ponds shall be provided for stormwater treatment.

## Article 13 – Sign Bylaw

N/A

## Article 14 – Administration and Enforcement

EP prepared the following supplemental information for issuance of a special permit for the construction of a municipal use building in an RE zoned district, in accordance with the Town of Medfield Table of Use Regulations (300 Attachment 1) Section 2.12.

The following requirements were taken from Ch. 300 Article 14.10 E.

1. Overall design is consistent and compatible with the neighborhood, including as to factors of building orientation, scale, and massing.

The current site is a predominantly undeveloped wooded area northeast of the Wheelock School. The proposed facility will not be visible from Elm Street, and a locked gate will restrict vehicular access at the Wheelock School parking lot. The site remains open to pedestrians utilizing a tributary of the Bay Circuit Walking Trail. The secluded nature of the proposed building location makes it compatible with the neighborhood along Elm Street.

2. Vehicular traffic flow, access and parking and pedestrian safety are properly addressed such that the proposed use will not result in a public hazard due to substantially increased vehicular traffic or parking in the neighborhood.

Additional vehicular traffic is not a concern with this type of facility. The proposed building shall be staffed on a part-time basis with 1-2 personnel. Chemical and equipment deliveries are expected to remain relatively similar to their current delivery schedule.

3. Drainage, utilities and other infrastructure are adequate or will be upgraded to accommodate development.

Stormwater shall be treated onsite with bioretention ponds designed to state and local standards. The water and electric infrastructure shall be upgraded under the scope of the Project.

4. The proposed use will not have any significant adverse effect upon properties in the neighborhood, including property values.

No adverse effects on properties in the neighborhood are expected.

5. Project will not adversely affect or cause substantial damage to any environmentally significant natural resource, habitat, or feature or, if it will, proposed mitigation, remediation, replication, or compensatory measures are adequate.

Although the Project is located in and near environmentally sensitive resource areas, it is the design intent to minimize impacts to these surrounding areas by treating stormwater runoff and limiting the area of disturbance.

6. Number, Height, bulk, location, and siting of building(s) and structure(s) will not result in abutting properties being deprived of light or fresh air circulation or being exposed to flooding or subjected to excessive noise, odor, light, vibrations, or airborne particulates.

Abutting properties shall not be disrupted.

7. Water consumption and sewer use, taking into consideration current and projected future local water supply and demand and wastewater treatment capacity, will not be excessive.

The plant will enhance the Towns public water supply and allow the Town to further diversify its water sources. The plant will send waste to the towns wastewater treatment system overnight when sewerage demands are at their lowest.

8. The proposed use will not create any hazard to public safety or health in the neighborhood.

The Project will not create any hazard to public safety or health.

9. If public sewerage is not provided, plans for onsite sewage disposal systems are adequate and have been approved by the Board of Health.

An onsite tight tank shall be provided for local plumbing waste.

## Article 15 – Amendment, Validity and Effective Date

N/A

## Article 16 – Aquifer Protection District

The Project is located within the Zone 1 Aquifer Protection District as defined by CH. 300 Article 16.3 A & B. The scope of this Project is permitted within the Zone 1 Well Protection District under Ch. 300 Article 16.5 P.8

“Necessary Public utilities or facilities if designed so as to prevent contamination of groundwater.”

Under Ch. 300, Article 16.6.A:

“Permitted uses in Primary Aquifer Zone. All uses permitted in a Well Protection District, and the following uses, are permitted in a Primary Aquifer Zone, provided that all necessary permits, orders and approvals required by local, state and federal law also are obtained:”

## Article 17 – Personal Wireless Communications Facilities

Within the scope of the Project, the new Water Treatment Plant structure will include a 4G wireless backhaul for the Towns Supervisory Control and Data Acquisition (SCADA) system. Currently, a 10-foot radio-based telemetry system currently in service at each of the two well houses. These systems will be removed and replaced with a single 4G antenna on the proposed WTP building.

## Article 18 – Adult Uses

N/A

## Article 19 - Large-Scale Solar Photovoltaic Facilities Overlay District (PVOD)

N/A

## Article 20 - Medfield State Hospital District

N/A

**ATTACHMENT 4**  
Earthwork Calculations

**CUT & FILL  
CALCULATIONS**

**PROJECT NAME:** Medfield - Well 3 WTP  
**PROJECT NUMBER:** R1134-1901

|                 |      |              |           |
|-----------------|------|--------------|-----------|
| <b>BY:</b>      | MEPA | <b>DATE:</b> | 10/8/2020 |
| <b>CHKD BY:</b> | DNRP | <b>DATE:</b> | 10/8/2020 |

**CUT**

| Description | Value | Units | Diagram (NTS) |
|-------------|-------|-------|---------------|
|-------------|-------|-------|---------------|

**Backwash Tank Cut**

*Rectangular portion of tank*

|                                    |        |      |
|------------------------------------|--------|------|
| Length (L)                         | 76.66  | feet |
| Width (W)                          | 16.00  | feet |
| Height (H <sub>1</sub> )           | 4.00   | feet |
| Freeboard Height (H <sub>3</sub> ) | 2.00   | feet |
| Volume (V <sub>1</sub> )           | 272.57 | CY   |

*Flat bottom of tank*

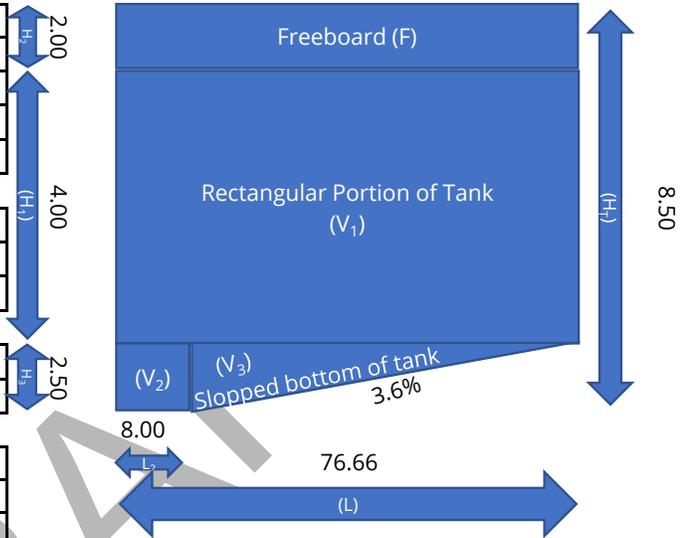
|                                      |       |      |
|--------------------------------------|-------|------|
| Flat bottom length (L <sub>2</sub> ) | 8.00  | feet |
| Flat bottom height (H <sub>2</sub> ) | 2.50  | feet |
| Volume (V <sub>2</sub> )             | 11.85 | CY   |

*Sloped bottom of tank*

|                          |       |      |
|--------------------------|-------|------|
| Slope (S)                | 3.6%  | Pct. |
| Volume (V <sub>3</sub> ) | 50.86 | CY   |

**Summary**

|   |        |      |
|---|--------|------|
| Total Internal Depth of Tank (H <sub>T</sub> )  | 8.50   | feet |
| Total Interior Volume of Tank (V <sub>T</sub> ) | 335.28 | CY   |
| Wall Thickness                                  | 1.50   | feet |
| Slab Thickness                                  | 1.17   | feet |
| Mat Thickness                                   | 2.00   | feet |
| Exterior Dimension Length (1)                   | 70.16  | feet |
| Exterior Dimension Length (2)                   | 9.50   | feet |
| Exterior Dimension Width                        | 19.00  | feet |
| Exterior Dimension Height (1)                   | 10.42  | feet |
| Exterior Dimension Height (2)                   | 11.67  | feet |
| Footing Length                                  | 201.32 | feet |
| Footing Width                                   | 1.00   | feet |
| Exterior Volume                                 | 607.20 | CY   |



**Chemical Containment Area**

|                          |        |      |              |
|--------------------------|--------|------|--------------|
| Room Area                | 570.58 | sqft | From AutoCAD |
| Height (H <sub>1</sub> ) | 3.00   | feet |              |
| Mat Thickness            | 1.50   | feet |              |
| Footing Length           | 96.67  | feet |              |
| Footing Width            | 0.50   | feet |              |
| Volume (V <sub>1</sub> ) | 97.78  | CY   |              |

**WTP Slab on Grade**

|                          |         |      |   |
|--------------------------|---------|------|---|
| Surface Area             | 2496.38 | sqft | 4,400 Sqft minus Chem area and Backwash tanks |
| Depth                    | 1.00    | feet |   |
| Volume (V <sub>1</sub> ) | 92.46   | CY   |   |

**Driveway Pavement Subgrade**

|                          |         |      |                                 |
|--------------------------|---------|------|---------------------------------|
| Surface Area             | 15983.5 | sqft |                                 |
| Depth                    | 1.33    | feet | 12" gravel subbase, 4" pavement |
| Volume (V <sub>1</sub> ) | 787.34  | CY   |                                 |

**CUT & FILL  
CALCULATIONS**

**PROJECT NAME:** Medfield - Well 3 WTP  
**PROJECT NUMBER:** R1134-1901

|                 |      |              |           |
|-----------------|------|--------------|-----------|
| <b>BY:</b>      | MEPA | <b>DATE:</b> | 10/8/2020 |
| <b>CHKD BY:</b> | DNRP | <b>DATE:</b> | 10/8/2020 |

**Footing Volume**                      Footing Dims: 1.5 ft. X 1 ft. 4

|                          |       |      |  |
|--------------------------|-------|------|--|
| Length (L)               | 85.75 | feet |  |
| Volume (V <sub>1</sub> ) | 12.70 | CY   |  |

**Post Foundations**

|                          |       |      |              |
|--------------------------|-------|------|--------------|
| Depth                    | 4.00  | feet |              |
| Total Area               | 73.00 | sqft | From AutoCAD |
| Volume (V <sub>1</sub> ) | 10.81 | CY   |              |

**2,000 Gal Tight Tank Cut Volume**

|                          |       |      |   |
|--------------------------|-------|------|---|
| Length (L)               | 11.00 | feet | Based on 2,000 gallon "commercial" tank by Shea |
| Width (W)                | 6.00  | feet |   |
| Height (H <sub>1</sub> ) | 7.50  | feet |   |
| Volume (V <sub>1</sub> ) | 18.33 | CY   |   |

**FILL**

| Description | Value | Units | Notes |
|-------------|-------|-------|-------|
|-------------|-------|-------|-------|

**Bioretention Basin Engineered Soil Mix**

|                          |        |      |  |
|--------------------------|--------|------|--|
| Surface Area             | 3900   | sqft | Measured in CAD                            |
| Depth                    | 3.00   | feet | 2+ feet of planting soil subbase, 4" mulch |
| Volume (V <sub>1</sub> ) | 433.33 | CY   |  |

**Driveway Pavement Subgrade**

|                          |         |      |                                 |
|--------------------------|---------|------|---------------------------------|
| Surface Area             | 15983.5 | sqft |                                 |
| Depth                    | 1.33    | feet | 12" gravel subbase, 4" pavement |
| Volume (V <sub>1</sub> ) | 787.34  | CY   |                                 |

**Gravel Areas**

|                          |       |      |           |
|--------------------------|-------|------|-----------|
| Surface Area             | 1678  | sqft |           |
| Depth                    | 0.50  | feet | 6" gravel |
| Volume (V <sub>1</sub> ) | 31.07 | CY   |           |

**SUMMARY - Building FFE = 161.0 ft**

| Description                            | Value          | Units     | Notes   |
|--|----------------|-----------|---|
| Site Grading Cut Volume                | 1501.53        | CY        | From CAD Cut and Fill Report                              |
| Additional Excavation Volume           | 1626.62        | CY        |   |
| <b>Total Cut Volume</b>                | <b>3128.15</b> | <b>CY</b> | <b>51% Cut</b>  |
| Assume remove top 6"                   | -986.52        | CY        | Account for organics and unsuitable materials for subbase |
| <b>Total Fill Volume</b>               | <b>2999.62</b> | <b>CY</b> | <b>49% Fill</b> From CAD Cut and Fill Report              |
| Specialty Fill Material Volume         | 1251.74        | CY        |   |
| Site Grading Fill Volume               | 1747.88        | CY        | (= total fill - specialty fill)                           |
| <b>Net Cut (including unsuitable):</b> | <b>1380.28</b> | <b>CY</b> | (= Total Cut Volume - Site Grading Fill Volume)           |

393.76

**ATTACHMENT 5**  
Draft Plans

**GENERAL NOTES**

- BASEMAP INFORMATION FROM A SURVEY PERFORMED BY MERRILL ENGINEERS AND LAND SURVEYORS IN MARCH 2020. THE BASIS OF BEARING FOR THE SURVEY IS AN APPROXIMATED NORTH AMERICAN VERTICAL DATUM OF 1983 NAVD83.
- WETLAND RESOURCE AREA DELINEATION FLAGGED BY PINEBROOK CONSULTING ON APRIL 23, 2020 AND OCTOBER 2, 2020 AND FIELD LOCATED BY EP USING A HAND-HELD GPS UNIT.
- BENCHMARK ELEVATIONS NAVD83
  - ACCESS ROAD FIRE HYDRANT SPINDLE EL. 151.99'
  - STATION 3 FIRE HYDRANT SPINDLE EL. 151.05'
  - STATION 4 FIRE HYDRANT SPINDLE EL. 151.17'
  - STATION 3 UTILITY POLE NAIL SET EL. 155.4'
- THE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO DESCRIBE THE WORK TO BE COMPLETED, AND INDICATE THE GENERAL LOCATION OF MATERIALS AND EQUIPMENT, BUT DO NOT PURPORT TO COVER ALL DETAILS NEEDED FOR A COMPLETE SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DETAILS THAT MAY BE NECESSARY TO PROPERLY INSTALL, ADJUST AND PLACE INTO OPERATION THE INSTALLATION INCLUDING ALL COORDINATION WITH SUBCONTRACTORS AND EQUIPMENT SUPPLIERS. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR PROVIDING A FULLY FUNCTIONAL SYSTEM.
- CONSTRUCTION STAKING CONTROL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY TO PERFORM THE WORK.
- THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES, PRIVATE PROPERTY OR WITHIN 100 FEET OF WETLANDS, UNLESS DIRECTED TO DO SO BY THE CONTRACT DOCUMENTS.
- NORTH DIRECTION SHOWN IS APPROXIMATE.
- ALL EXISTING UTILITY SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY DIG SAFE AT LEAST 72 HOURS IN ADVANCE, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL UTILITIES AND STRUCTURES DURING CONSTRUCTION.
- ALL EXISTING UTILITY LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE, UNLESS OTHERWISE NOTED. THE CONTRACTOR, AT NO ADDITIONAL COST TO THE TOWN, SHALL REPAIR ANY EXISTING SEWERS, STORM DRAIN LINES, CULVERTS, OR OTHER UNDERGROUND UTILITIES DAMAGED DURING CONSTRUCTION.
- "ABANDON" SHALL MEAN TO REMOVE AND DISPOSE OF. "ABANDON-IN-PLACE" SHALL MEAN TO CUT, CAP, AND LEAVE IN PLACE.
- ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURE CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY AND THE TOWN. OPEN TRENCHES MUST BE BACK FILLED AT THE END OF THE WORKDAY OR COVERED WITH STEEL PLATES. NO EXCEPTIONS SHALL BE PERMITTED.
- CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDE WALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE TOWN OF MEDFIELD AND ENGINEER.
- IF ENCOUNTERED, CONTRACTOR SHALL HANDLE, STORE, REMOVE, TRANSPORT AND LEGALLY DISPOSE OF ANY ASBESTOS-CEMENT PIPE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. ASBESTOS NOTIFICATION FORMS SHALL BE COMPLETED AND SUBMITTED TO THE APPROPRIATE AGENCY/AGENCIES.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR WORK IN ROADWAYS INCLUDING, BUT NOT LIMITED TO STREET OPENING PERMIT, TRENCH PERMIT, AND SEWER CONNECTION PERMIT AND FOR BLASTING. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL PERMITS AS AN INTEGRAL PART OF HIS WORK.
- THE CONTRACTOR SHALL HANDLE GROUNDWATER, WHERE ENCOUNTERED, IN AN APPROVED MANNER. DURING ANY DEWATERING, THE CONTRACTOR SHALL USE STONE AROUND THE SUCTION END TO MINIMIZE DISCHARGE OF TRENCH MATERIALS. THE DISCHARGED WATER SHALL PASS THROUGH DEWATERING BAGS.
- FINAL LOCATION OF EQUIPMENT AND CONNECTION POINTS SHALL BE APPROVED BY THE ENGINEER AND SHALL BE DETERMINED IN THE FIELD WITH THE CONTRACTOR BEING RESPONSIBLE FOR DIMENSIONS THAT SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO DRAIN.
- ADEQUATE PROTECTION OF PERSONS AND PROPERTY SHALL BE PROVIDED AT ALL TIMES. THE WORK SHALL BE EXECUTED IN SUCH A WAY AS TO AVOID HAZARD TO PERSONS AND PROPERTY. WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTION OVER THE WORK.
- THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES OR HYDRANTS WHICH HOLD WATER IN THE SYSTEM. THE OWNER WILL, ON 24 HOURS NOTICE FROM THE CONTRACTOR, OPEN AND OR CLOSE ANY VALVES OR HYDRANTS REQUIRED FOR DRAINING OR ADMITTING WATER TO THE VARIOUS SECTIONS OF THE WATER MAINS.

**GROUNDWATER AND SOIL OBSERVATIONS**

- BORINGS WERE CONDUCTED ON JANUARY 23 AND 24, 2020 BY NORTHERN DRILLING SERVICES AND OBSERVED BY EP. BORING LOCATIONS AND ELEVATIONS WERE COLLECTED USING A HAND-HELD GPS UNIT BY EP.
- EXISTING SOILS ON THE SITE HAVE BEEN CLASSIFIED AS PREDOMINATELY BROWN SILTY SAND WITH GRAVEL TO MEDIUM SAND WITH SILT AND TRACE GRAVEL. THE FILL LAYER EXTENDS FROM 12 INCHES BELOW EXISTING GRADE TO AT LEAST 2 FEET BELOW GRADE. ALL BORINGS WERE TERMINATED AT THE PRE-DETERMINED DEPTH OF 2 FEET. BORING LOGS AND THE GEOTECHNICAL REPORT ARE INCLUDED IN THE APPENDICES OF THE PROJECT SPECIFICATIONS.
- GROUNDWATER WAS ESTIMATED AT APPROXIMATELY 11 FEET BELOW GRADE.

**CIVIL ABBREVIATIONS**

|         |  |
|---------|--|
| APPROX. | APPROXIMATELY                              |
| BC      | BOTTOM OF CAPE COD BERM SPOT GRADE         |
| BIT.    | BITUMINOUS                                 |
| BP      | BIORETENTION POND                          |
| BS      | BLACK STEEL                                |
| CB      | CATCH BASIN                                |
| CCB     | CAPE COD BERM                              |
| CONC.   | CONCRETE                                   |
| CU      | COPPER                                     |
| D       | DRAIN                                      |
| DI      | DUCTILE IRON                               |
| DIA.    | DIAMETER                                   |
| E       | ELECTRIC                                   |
| ELEV.   | ELEVATION                                  |
| FFE     | FINISHED FLOOR ELEVATION                   |
| FM      | SEWER FORCE MAIN                           |
| FW      | FINISHED WATER                             |
| G       | GAS  |
| GC      | GRASSED CHANNEL                            |
| ACP     | ACCESSIBLE PARKING                         |
| HDPE    | HIGH DENSITY POLYETHYLENE                  |
| HH      | HAND HOLE                                  |
| ID      | INSIDE DIAMETER                            |
| MASSDOT | MASSACHUSETTS DEPARTMENT OF TRANSPORTATION |
| MAX.    | MAXIMUM                                    |
| MH      | MAN HOLE                                   |
| MIN.    | MINIMUM                                    |
| N       | NORTH                                      |
| N.T.S.  | NOT TO SCALE                               |
| OC      | ON CENTER                                  |
| P       | PARKING                                    |
| PE      | POLYETHYLENE                               |
| PVC     | POLYVINYL CHLORIDE                         |
| RC      | REINFORCED CONCRETE                        |
| RW      | RAW WATER                                  |
| S       | SEWER                                      |
| T       | TELEPHONE                                  |
| T/C     | COMMUNICATIONS                             |
| TC      | TOP OF CAPE COD BERM SPOT GRADE            |
| TYP.    | TYPICAL                                    |
| UP      | UTILITY POLE                               |
| W       | WATER                                      |

**LEGEND**

| EXISTING | DESCRIPTION             |
|----------|-------------------------|
|          | 10' CONTOUR             |
|          | 1' CONTOUR              |
|          | EASEMENT                |
|          | ELECTRIC OVERHEAD WIRES |
|          | ELECTRIC UNDERGROUND    |
|          | EDGE OF PAVEMENT        |
|          | CHAIN LINK FENCE        |
|          | PROPERTY LINES          |
|          | RAILROAD TRACKS         |
|          | STONE WALL              |
|          | LIMIT OF FLOOD ZONE     |
|          | LIMIT OF WETLAND        |
|          | 100' BUFFER TO WETLAND  |
|          | 50' NO DISTURB BUFFER   |
|          | WATER MAIN              |
|          | GRAVEL                  |
|          | HYDRANT                 |
|          | UTILITY POLE            |
|          | GUY WIRE                |
|          | BORING HOLE             |
|          | GATE VALVE              |
|          | WATER SERVICE           |
|          | BOULDER                 |
|          | EVERGREEN TREE          |
|          | DECIDUOUS TREE          |
|          | WETLAND FLAG            |
|          | TEST PIT                |
| PROPOSED | DESCRIPTION             |
|          | 1' CONTOUR              |
|          | EDGE OF PAVEMENT        |
|          | CHAIN LINK FENCE        |
|          | LIMIT OF CLEARING       |
|          | FINISHED WATER MAIN     |
|          | RAW WATER MAIN          |
|          | GAS MAIN                |
|          | DRAIN LINE              |
|          | SEWER FORCE MAIN        |
|          | GRAVITY SEWER MAIN      |
|          | FIBER OPTIC             |
|          | COMMUNICATIONS          |
|          | ELECTRICAL LINE         |
|          | TELEPHONE LINE          |
|          | BIORETENTION POND       |
|          | GRAVEL                  |
|          | LOAM AND SEED           |
|          | SEDIMENTATION CONTROL   |
|          | SPOT GRADE              |
|          | HYDRANT                 |
|          | GATE VALVE              |
|          | REDUCER                 |
|          | GAS SERVICE METER       |
|          | TEST PIT                |



|             |              |             |
|-------------|--------------|-------------|
| Scale       | 1"=20'       |             |
| Date        | OCTOBER 2020 |             |
| Job No.     | 134-2002     |             |
| Designed by | TWS          |             |
| Drawn by    | TWS          |             |
| Checked by  | DNRP         |             |
| Approved by | EAK          |             |
| MARK        | DATE         | DESCRIPTION |

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

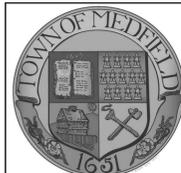
**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

**CIVIL GENERAL NOTES AND LEGEND**

50% DESIGN

Sheet No.

**C-1**



**ENVIRONMENTAL PARTNERS**

| MARK | DATE | DESCRIPTION |
|------|------|-------------|
|      |      |             |
|      |      |             |
|      |      |             |
|      |      |             |
|      |      |             |

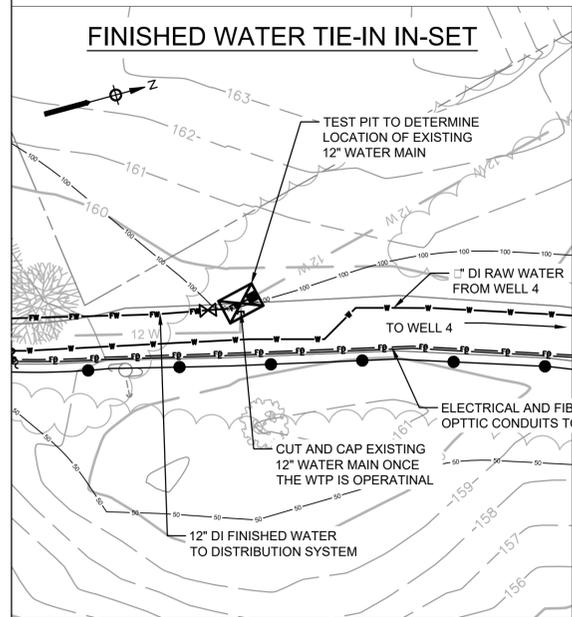
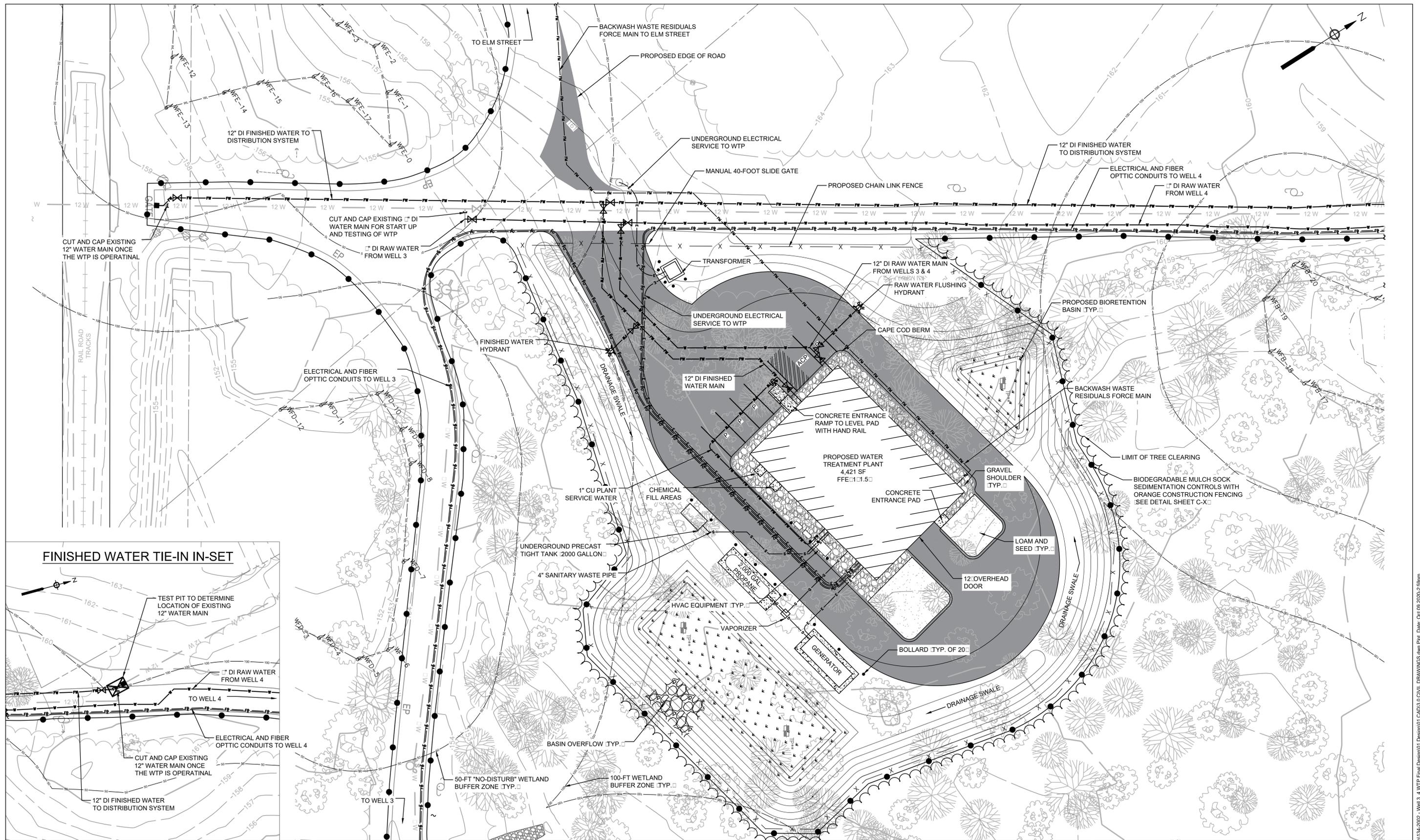
|             |              |
|-------------|--------------|
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| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | TWS          |
| Drawn by    | TWS          |
| Checked by  | DNRP         |
| Approved by | EAK          |

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

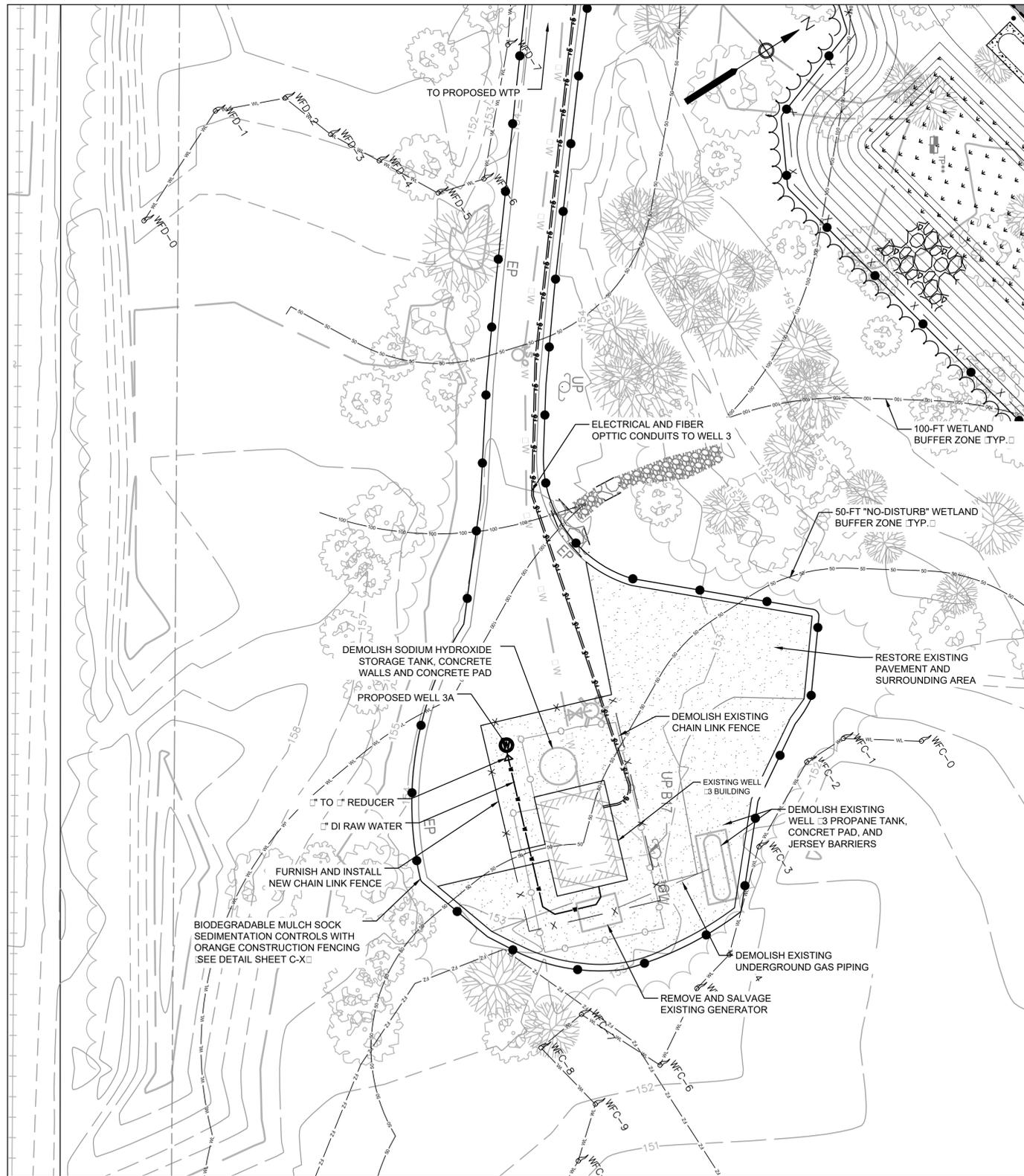
**EXISTING CONDITIONS PLAN**

50% DESIGN  
Sheet No.  
**C-2**

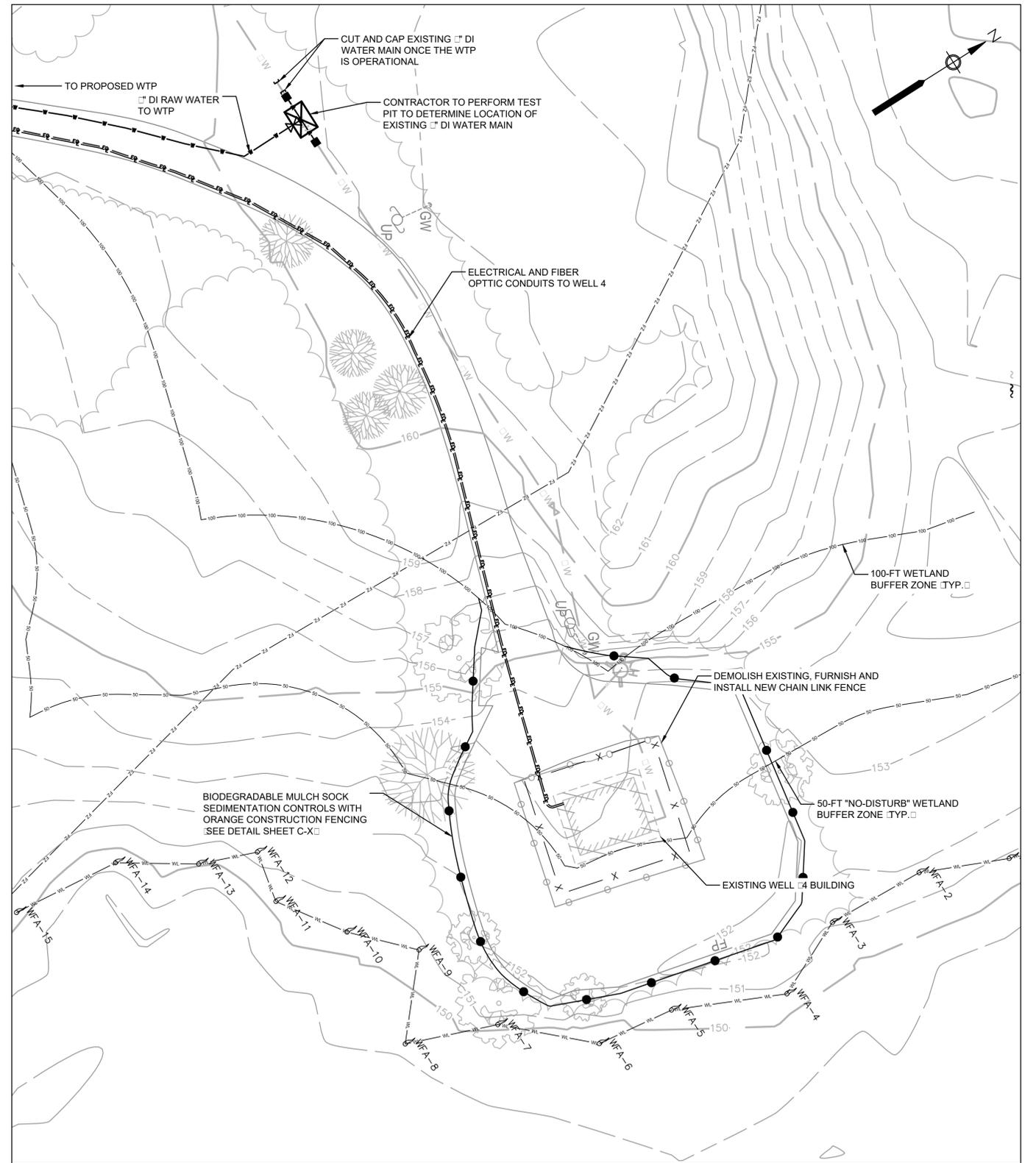


|             | <b>ENVIRONMENTAL PARTNERS</b><br> |   |      |      |             | <b>WELLS 3 &amp; 4 WATER TREATMENT PLANT FINAL DESIGN</b><br><b>MEDFIELD, MASSACHUSETTS</b> | 50% DESIGN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|-------------|-----------------------------------|---|------|------|-------------|---|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|--------|------|--------------|---------|----------|-------------|-----|----------|-----|------------|------|-------------|-----|
|             |                                   | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">MARK</th> <th style="width: 10%;">DATE</th> <th style="width: 80%;">DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | MARK | DATE | DESCRIPTION |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Scale</td><td>1"=20'</td></tr> <tr><td>Date</td><td>OCTOBER 2020</td></tr> <tr><td>Job No.</td><td>134-2002</td></tr> <tr><td>Designed by</td><td>TWS</td></tr> <tr><td>Drawn by</td><td>TWS</td></tr> <tr><td>Checked by</td><td>DNRP</td></tr> <tr><td>Approved by</td><td>EAK</td></tr> </table> | Scale | 1"=20' | Date | OCTOBER 2020 | Job No. | 134-2002 | Designed by | TWS | Drawn by | TWS | Checked by | DNRP | Approved by | EAK |
| MARK        | DATE                              | DESCRIPTION   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
|             |                                   |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Scale       | 1"=20'                            |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Date        | OCTOBER 2020                      |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Job No.     | 134-2002                          |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Designed by | TWS                               |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Drawn by    | TWS                               |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Checked by  | DNRP                              |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |
| Approved by | EAK                               |   |      |      |             |   |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |        |      |              |         |          |             |     |          |     |            |      |             |     |

Drawing file: I:\Medfield\_134\Water\_System\134-2002 - Well\_3\_4 WTP Final Design\01 - Design\01 - CAD\3.0 CIVIL DRAWINGS.dwg Plot Date: Oct 09 2020 2:58pm



**WELL STATION 3**  
SCALE: 1" = 20'



**WELL STATION 4**  
SCALE: 1" = 20'



**ENVIRONMENTAL PARTNERS**

| MARK | DATE | DESCRIPTION |
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|-------------|--------------|
| Scale       | 1" = 20'     |
| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | MEPA         |
| Drawn by    | MEPA         |
| Checked by  | DNRP         |
| Approved by | EAK          |

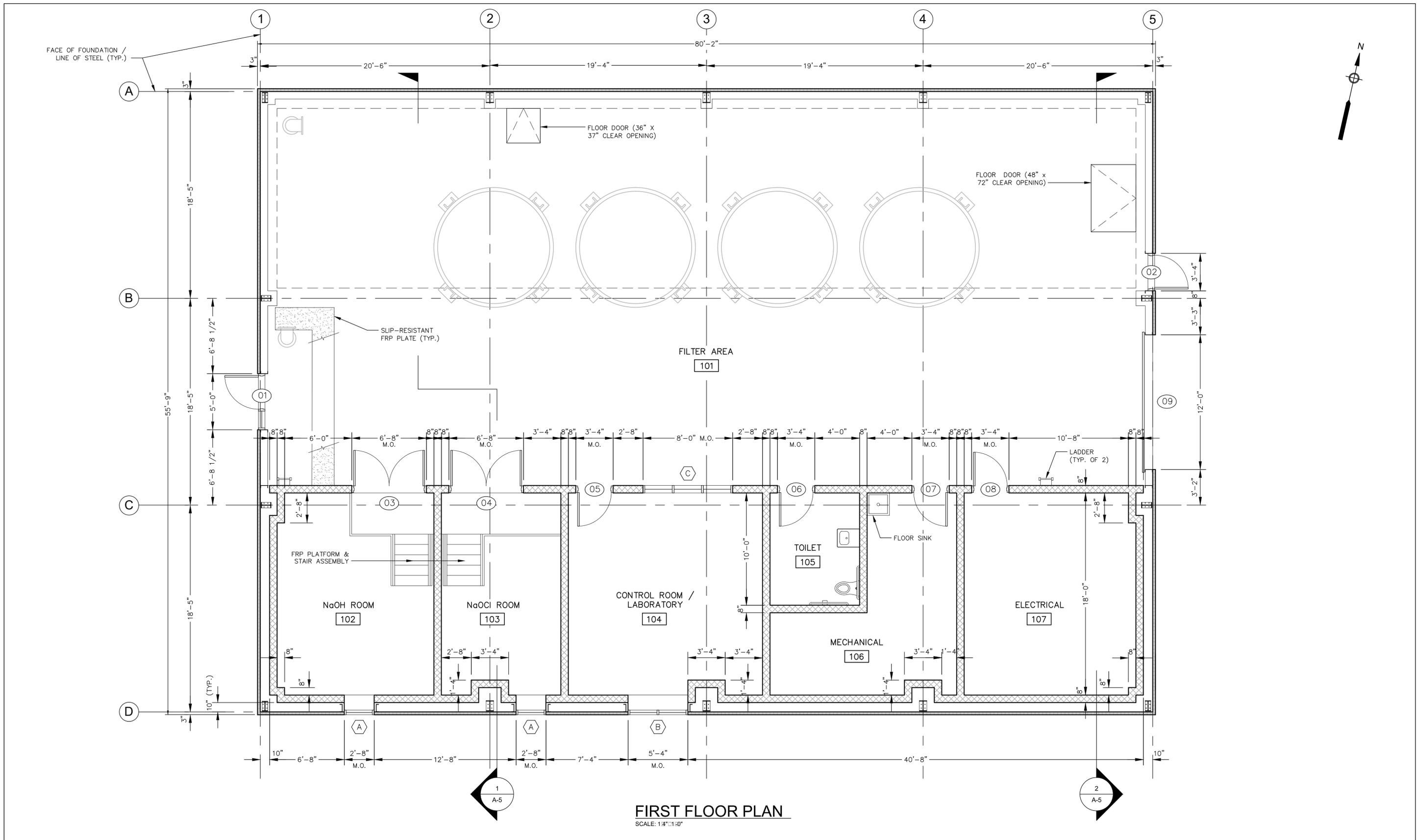
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**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

**SITE PLAN - WELL STATIONS 3 AND 4**

50% DESIGN  
Sheet No.

**C-4**



**FIRST FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



**ENVIRONMENTAL PARTNERS**

**CGKV Architects, Inc.**

| MARK | DATE | DESCRIPTION |
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| Scale       | AS SHOWN     |
| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | JK           |
| Drawn by    | EZ           |
| Checked by  | JK           |
| Approved by |              |

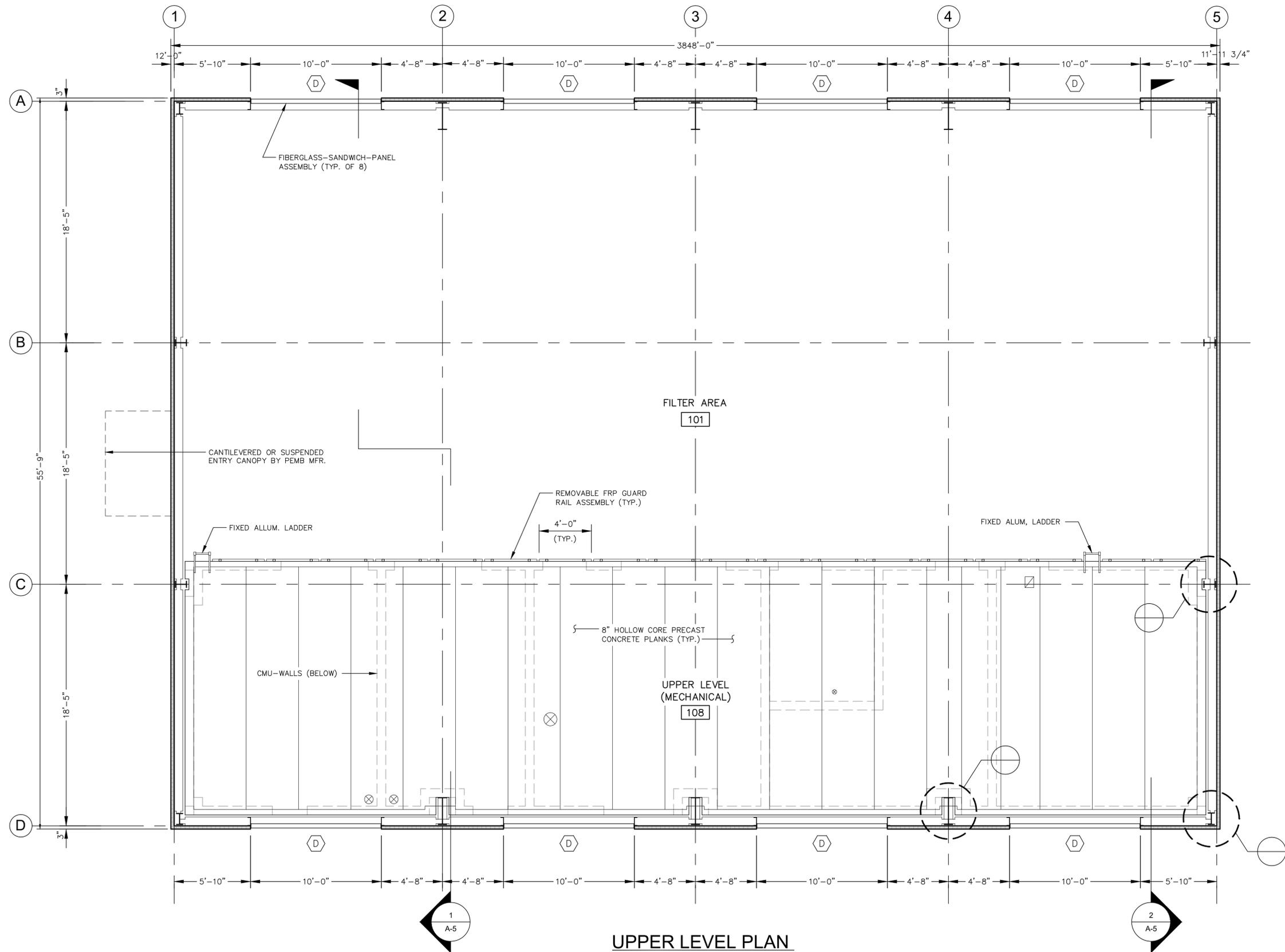
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**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN**  
**MEDFIELD, MASSACHUSETTS**

**FIRST FLOOR PLAN**

50% DESIGN  
Sheet No.

**A-1**



**UPPER LEVEL PLAN**  
SCALE: 1/4" = 1'-0"



**ENVIRONMENTAL PARTNERS**

**CGKV Architects, Inc.**

| MARK | DATE | DESCRIPTION |
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| Scale       | AS SHOWN     |
| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | JK           |
| Drawn by    | EZ           |
| Checked by  | JK           |
| Approved by |              |

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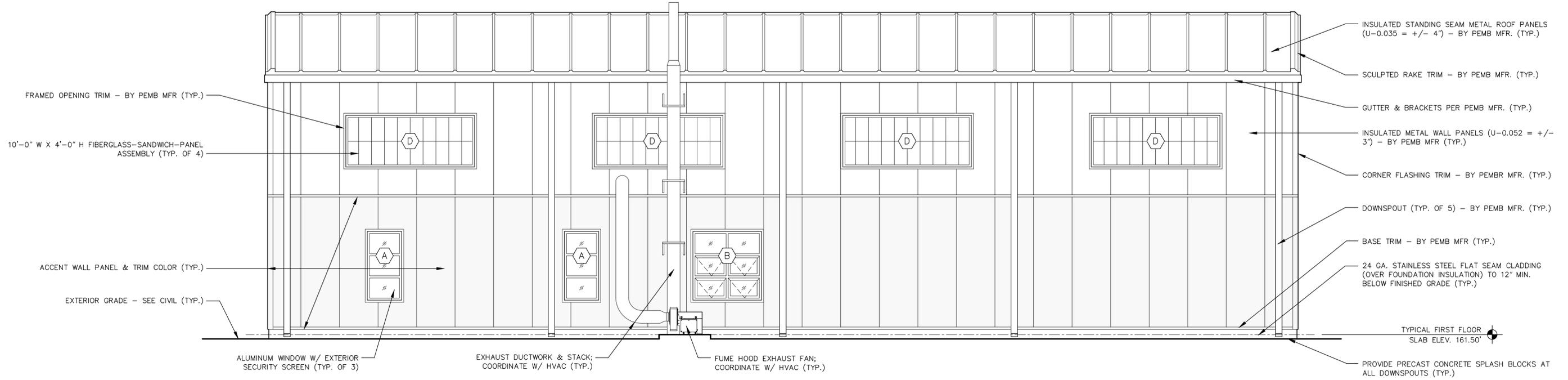
**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

**UPPER LEVEL PLAN**

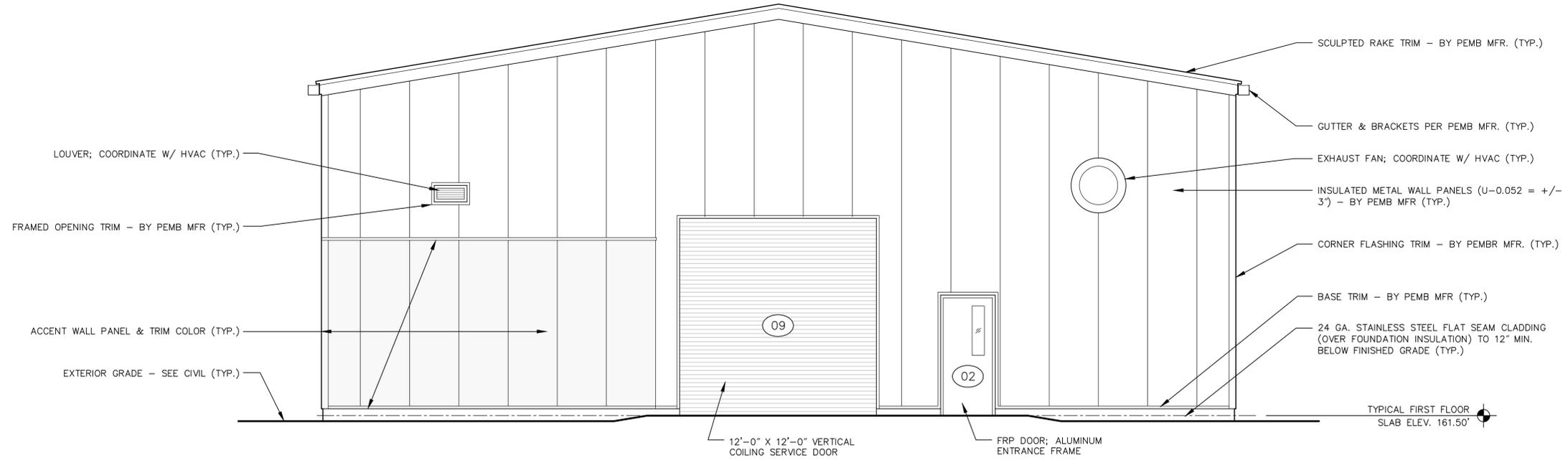
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Sheet No.

**A-2**

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**SOUTH ELEVATION**  
SCALE: 1/4"=1'-0"



**EAST ELEVATION**  
SCALE: 1/4"=1'-0"



**ENVIRONMENTAL PARTNERS**  
**CGKV Architects, Inc.**

| MARK | DATE | DESCRIPTION |
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| Scale       | AS SHOWN     |
| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | JK           |
| Drawn by    | EZ           |
| Checked by  | JK           |
| Approved by |              |

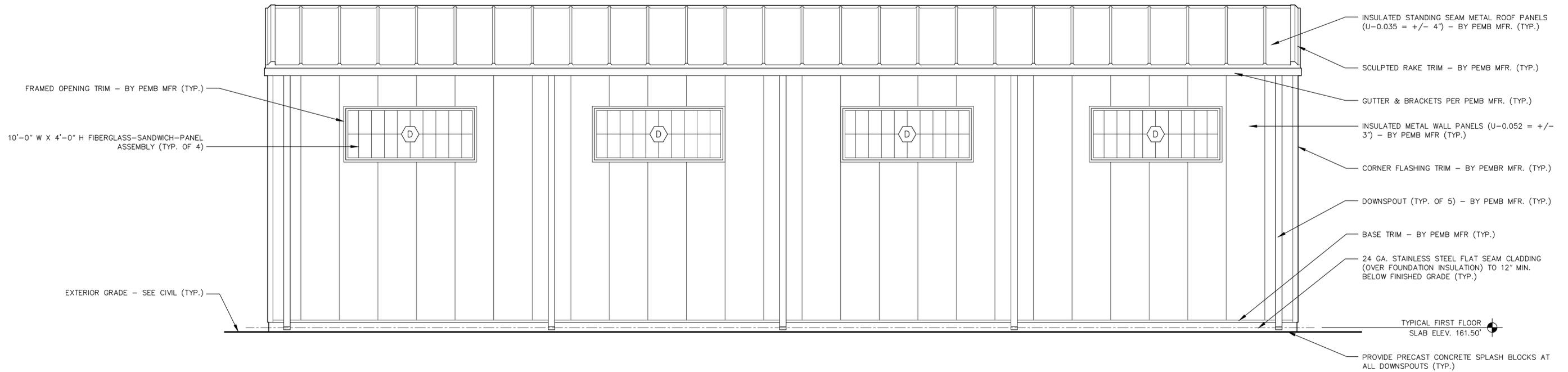
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**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN**  
**MEDFIELD, MASSACHUSETTS**

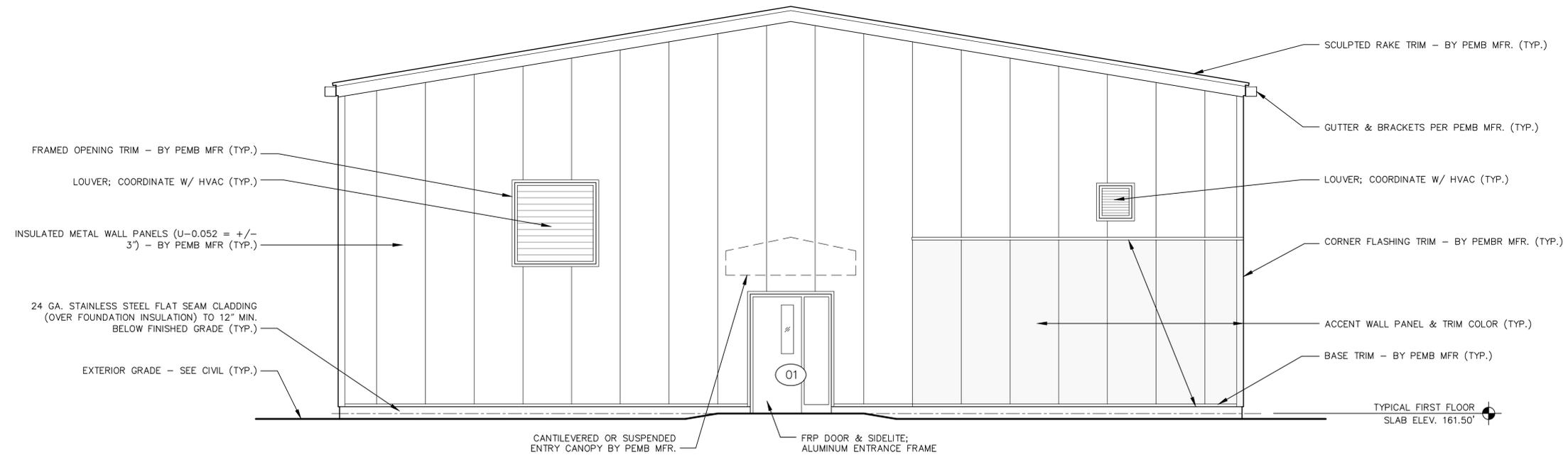
**EXTERIOR ELEVATIONS I**

50% DESIGN  
Sheet No.

**A-3**



**NORTH ELEVATION**  
SCALE: 1/4"=1'-0"



**WEST ELEVATION**  
SCALE: 1/4"=1'-0"



**ENVIRONMENTAL PARTNERS**

**CGKV Architects, Inc.**

| MARK | DATE | DESCRIPTION |
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| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | JK           |
| Drawn by    | EZ           |
| Checked by  | JK           |
| Approved by |              |

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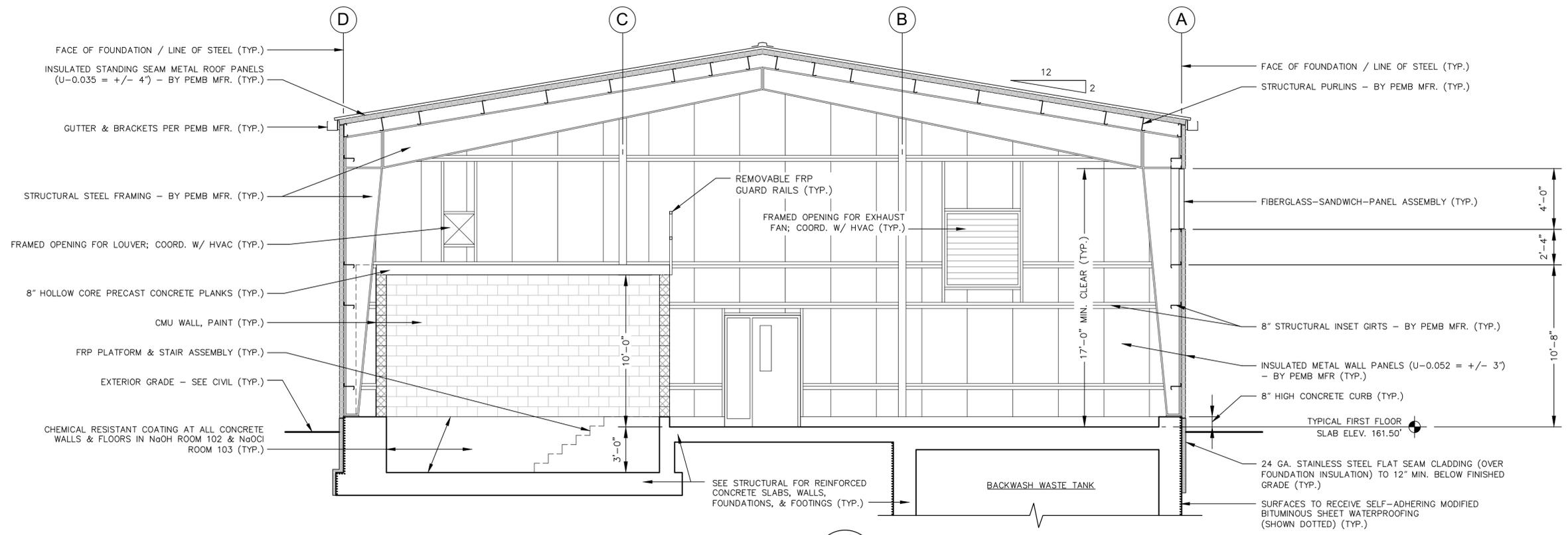
**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

**EXTERIOR ELEVATIONS II**

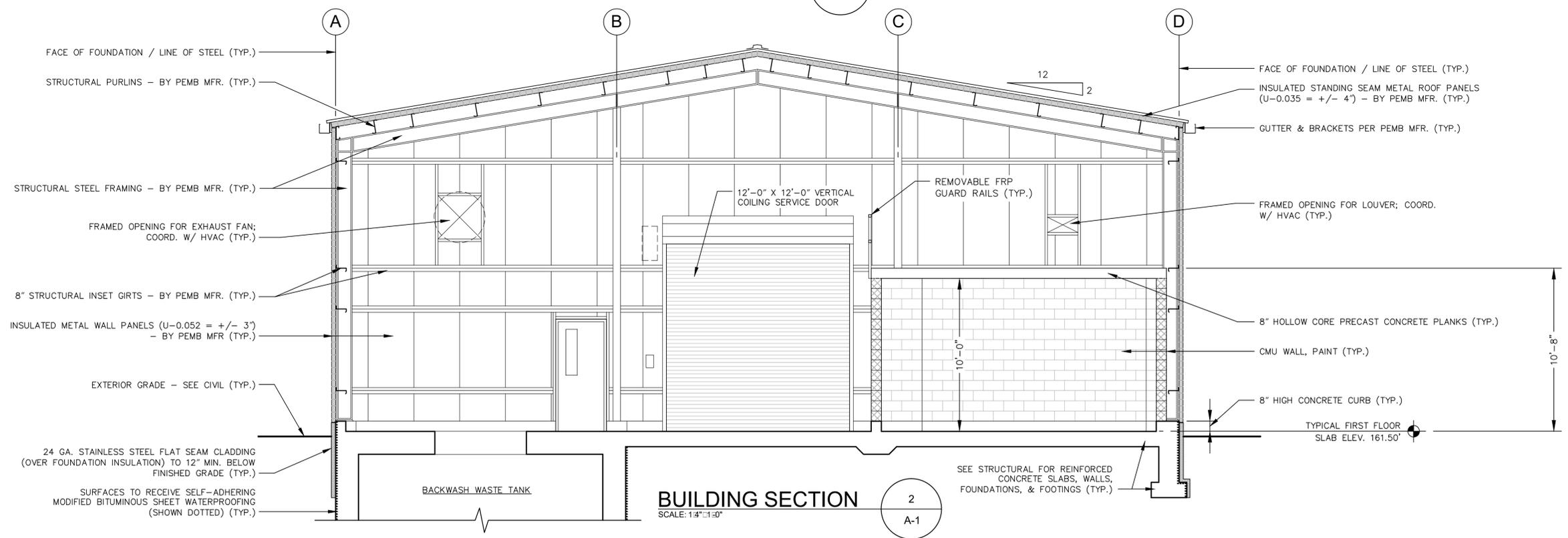
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Sheet No.

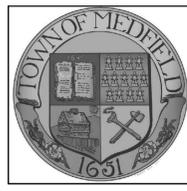
**A-4**



**BUILDING SECTION 1**  
SCALE: 1/4"=1'-0"



**BUILDING SECTION 2**  
SCALE: 1/4"=1'-0"



**ENVIRONMENTAL PARTNERS**

**CGKV Architects, Inc.**

| MARK | DATE | DESCRIPTION |
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| Date        | OCTOBER 2020 |
| Job No.     | 134-2002     |
| Designed by | JK           |
| Drawn by    | EZ           |
| Checked by  | JK           |
| Approved by |              |

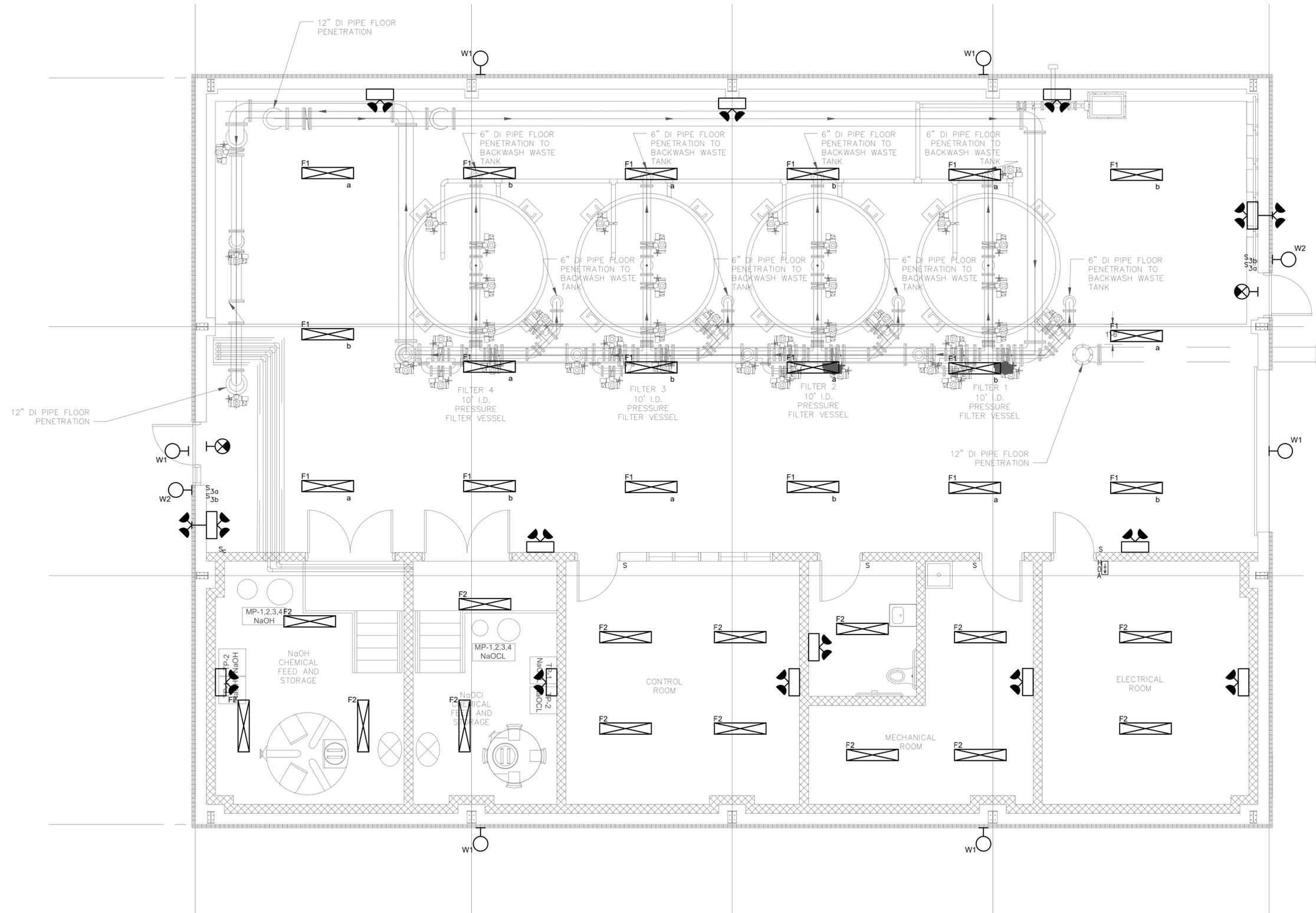
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**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

**BUILDING SECTIONS**

50% DESIGN  
Sheet No.

**A-5**



**PLAN**  
SCALE: 1/4"=1'-0"



**ENVIRONMENTAL PARTNERS**

**SEI ENGINEERING, INC.**  
Mechanical/Electrical Engineers  
158 Greenwood Drive, Suite 300  
Braintree, Massachusetts 02184  
617.328.9115  
www.sei.com

| Scale       | AS SHOWN     |             |
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| Date        | OCTOBER 2020 |             |
| Job No.     | 134-2002     |             |
| Designed by | RLB          |             |
| Drawn by    | RLB          |             |
| Checked by  | RHB          |             |
| Approved by |              |             |
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**WELLS 3 & 4 WATER TREATMENT PLANT FINAL DESIGN  
MEDFIELD, MASSACHUSETTS**

**ELECTRICAL FIRST FLOOR  
LIGHTING PLAN**

50% DESIGN

Sheet No.

**E-7**