

# HANCOCK ASSOCIATES

Surveyors | Engineers | Scientists

#25409

November 3, 2022

Boxford Conservation Commission  
Attention: Ross Povenmire  
7A Spofford Road  
Boxford, MA 01921

**RE: 18 Chadwick Farm Road – Notice of Intent**

Dear Members of the Conservation Commission,

On behalf of Mr. Charles Cochrane (Applicant), Hancock Associates respectfully submits this Notice of Intent pursuant to a positive Determination of Applicability. This application is in request to permit relocation of an existing well within the 100-foot Buffer Zone to jurisdictional wetlands resource areas and local setback zones under the Massachusetts Wetlands Protection Act (WPA) Regulations and Boxford Wetland Bylaw. Elements of construction are proposed within the 100-foot Buffer Zone to Bordering Vegetated Wetland (BVW), NHESP Mapped Priority Rare Species Habitat (NHESP PH 2136), and an Outstanding Resource Water (ORW).

**Existing Conditions and Wetland Resource Areas**

The property is located at 18 Chadwick Farm Road in Boxford (identified as Map 6/Lot 2-10 on Boxford Assessors Maps). The property is a 1.76 acre developed residential lot. This area is regulated under the Massachusetts Wetlands Protection Act (WPA, M.G.L. c. 131 § 40) and the Town of Boxford Wetlands Protection Bylaw (Town Code Chapter 192) and implementing regulations.

Prior to performing field wetland delineations, an environmental constraints desktop assessment of the subject property was performed through review of MassGIS data layers, USGS 7.5-minute quadrangle maps, NRCS soil survey data, aerial photography, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs).

Based on this review, NHESP Estimated, and Priority Rare Species Habitats are mapped on the subject property (PH 2136). An unnamed perennial stream occurs adjacent to the property to the north, which projects a 200-foot Riverfront Area onto the subject property. The property is also located within a mapped Outstanding Resource Water (ORW) associated with a Public Water Supply Watershed for Johnsons Pond/Merrimack River. There are no Areas of Critical Environmental Concern (ACECs), Cold Water Fisheries, Surface Water Protection Zones, or Wellhead Protection Zones on the property.

According to the FEMA FIRM, none of the proposed work occurs at or below the 100-year floodplain (FIRM No. 25009C0231F, dated July 3, 2012).

In November 2021, a qualified Wetland Professional in Training (WPIT®) field delineated the limit of Bordering Vegetated Wetland and Mean Annual High Water (MAHW) with a wetland flag series demarcated as WF flags series A100 through A114, and a Bank (MAHW) Flag Series BA100-115. BVW was delineated in accordance with the guidance document *Delineating Bordering Vegetated Wetlands under the Massachusetts Wetlands Protection Act* published by the MassDEP Division of Wetlands and Waterways in March 1995. All wetland flags were located via survey and plotted to the Existing Conditions Plan herein by a Professional Land Surveyor (PLS) (refer to Site Plan as Attachment F).

The resource areas impacting activities on-site are the following:

- Bordering Vegetated Wetlands (BVW) and the associated 100-foot Buffer Zone under the WPA under the Local Bylaw
- 25' No Disturb Zone and 75' No Build Zone under the Boxford Wetland Bylaw

#### Buffer Zones and Setback Zones

Buffer Zone is defined in 310 CRM 10.04 as “that area of land extending 100 feet horizontally outward from the boundary of any area specified in 310 CMR 10.02(1)(a).” Buffer Zone within the area of interest is associated with BVW and Bank.

Work within the Buffer Zones to BVW fall under the jurisdiction of both the Massachusetts Wetlands Protection Act and Boxford Wetland Bylaw, and both have a 100-foot Buffer Zone horizontally off the limits of resource area.

#### Bordering Vegetated Wetlands (BVW)

BVW was delineated to the extent that it would broadcast associated buffer zone toward the limits of proposed work on the property. The delineation was based on observations of where vegetative species composition transitions from dominance of wetland indicator species to dominance of upland indicator species. Other notable characteristics were the presence of standing water and surface hydrology within the BVW complex, and saturated hydric soils. The water table was shallow and observed at 18 inches.

BVW was delineated with one (1) flag series, identified as Series A as follows:

#### *A-series Wetland*

The limit of BVW associated with the A-series wetland was demarcated with a single series of seven (7) wetland flags labeled A (100 through 106).

Wetland indicator plant species within the wetland included cinnamon fern (*Osmundastrum cinnamomeum*, FACW), red maple (*Acer rubrum*, FAC), cattail (*Typha latifolia*, OBL), tussock sedge (*Carex stricta*, OBL), winterberry (*Ilex verticillata*, FACW), sensitive fern (*Onoclea sensibilis*, FACW), soft rush (*Juncus effuses*, OBL), and highbush blueberry (*Vaccinium corymbosum*, FACW).

On the up-gradient side of the wetland flags, upland species such as red oak (*Quercus rubra*, FACU), white pine (*Pinus strobus*, FACU), and American beech (*Fagus grandifolia*, FACU) become dominant species, and no indicators of surface hydrology or hydric soils were observed.

#### Riverfront Area (MAHW)

MAHW was delineated to the extent that it broadcasts associated 200-foot Riverfront Area on the subject property. The delineation was based on field indicators of bank full condition. In this circumstance, MAHW is coincident to Inland Bank.

MAHW was delineated with one (1) flag series, identified as Series BA as follows:  
*BA Series (Bank Flags)*

The limit of MAHW associated with the Bank flag series was demarcated with a series of sixteen (16) wetland flags labeled BA (100 through 115).

#### **Proposed Work**

The following section provides detail on the project proposed within the 100-foot Buffer Zone to BVW. The well has been relocated to be within the 100-foot Buffer Zone to BVW and outside of the 25-foot No Disturb Zone.

As planned, effective construction-related erosion and sediment controls will be implemented such that adverse impacts to resources areas will be avoided and the Interests of the Wetlands Protection Act upheld. All efforts will be made to avoid impacts to resource areas on-site and adjacent to the proposed project. The project, as proposed, is designed to protect the interests of the Wetlands Protection Act as defined by 310 CMR 10.01 (2).

Because of the construction of the house, the well on the neighboring property must be relocated to conform to the Town of Boxford Board of Health regulations. The two properties are under common ownership. Impacts to the 100-foot Buffer Zone total 588 square feet between the water line trenching, slurry pit and decommissioning of the existing well.

#### **Work within Boxford Setback Zones**

##### *25' No Disturb Zone*

Temporary erosion controls located in the 25' No Disturb Zone. A request for waiver is not necessary as the property and well (1990) existed prior to the Boxford Wetland Bylaw (1994).

##### *75' No Build Zone*

Work in the 75' No Build Zone is limited to the installation of a water line through maintained turf lawn.

#### **Performance Standards**

Bordering Vegetated Wetland (BVW)

There is no work proposed within BVW, however work is proposed within the 100-foot buffer zone to BVW. There are no regulatory performance standards for the 100-foot Buffer Zone to BVW under 310 CMR 10.00. The scope of work proposed has been designed to meet the regulatory standards for work within the 100-foot Buffer Zone of the BVW. With BMPs for wetland protection during construction and permanent stabilization of alterations within the buffer zone following construction, we anticipate that there will be no adverse impact to BVW (See Table 2-1, Compliance with Performance Standards for Bordering Vegetated Wetlands (310. CMR. 10.55)).

**Table 2-1, Compliance with Performance Standards for Bordering Vegetated Wetlands (310 CMR 10.55)**

BORDERING VEGETATED WETLAND PERFORMANCE STANDARD	COMPLIANCE WITH PERFORMANCE STANDARD
310 CMR 10.55(4)(a): Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of said area.	No alteration within BVW is proposed.
310 CMR 10.55(4) (b): Notwithstanding the provisions of 310 CMR 10.55(4) (a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5,000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost.	The entire portion of BVW will not be permanently altered in any way. Work proposed within 100' Buffer to BVW and local 75' NBZ will not alter or impact the wetland resource area and its existing conditions.
310 CMR 10.55(4)(c): Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of Bordering Vegetated Wetland when:	
a. said portion has a surface area less than 500 square feet;	Minimal surface area permanent alteration will occur.
b. said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and	No portions of the BVW are affected.
c. in the judgment of the issuing authority it is not reasonable to	There will be no loss of the wetland resource area itself. The impacts to the

BORDERING VEGETATED WETLAND PERFORMANCE STANDARD	COMPLIANCE WITH PERFORMANCE STANDARD
scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.	BVW Buffer zone are temporary in nature.
d. Notwithstanding the provisions of 310 CMR 10.55(4)(a),(b) and (c), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.	The Project Proponent is filing a notification with NHESP simultaneously to this NOI. The applicant and proponent understand that they are responsible for providing the information required for this review process and anticipates working with MassDEP and the local conservation commission to see this through a compliant approval.
(e) Any proposed work shall not destroy or otherwise impair any portion of a Bordering Vegetated Wetland that is within an Area of Critical Environmental Concern designated by the Secretary of Energy and Environmental Affairs under M.G.L. c. 21A, § 2(7) and 301 CMR 12.00: Areas of Critical Environmental Concern. 310 CMR 10.55(4)(e):	
a. supersedes the provisions of 310 CMR 10.55(4)(b) and (c);	Not applicable
b. shall not apply if the presumption set forth at 310 CMR 10.55(3) is overcome;	Not applicable
c. shall not apply to work proposed under 310 CMR 10.53(3)(l); and	310 CMR 10.53(3) (l) references the construction, reconstruction, operation, or maintenance of water dependent uses. Water-dependent uses are specifically defined in 310 CMR 9.12 and include shore protection structures, such as seawalls, bulkheads, revetments, and any associated fill which are necessary either to protect an existing structure from natural erosion or to protect, construct, or expand a water-dependent use. Therefore, not applicable.
d. shall not apply to maintenance of storm water detention, retention, or sedimentation ponds, or to maintenance of storm water energy dissipating structures, that have been constructed in accordance with a valid order of conditions.	Not applicable

### Riverfront Area

The project has been designed to avoid all project impacts within the 200-foot Riverfront Area, wetland resource areas and associated buffer zones in protection of all interest in wetland protection defined in the WPA and the Boxford Wetland Bylaw. No work is proposed within the 200' Riverfront Area.

### Estimated Habitat of Rare Wildlife and Priority Rare Species Habitat

As the scope of work is proposed within mapped Estimated and Priority Habitats for Rare Species as administered through the Massachusetts Endangered Species Act (MESA), the Applicant has submitted a notification letter to NHESP. A copy of the Notification Letter is provided herein.

### Conclusion

As described herein, we believe the scope of work proposed has been designed to meet the performance standards for work within the 200' Riverfront Area and buffer zone to BVW. With standard Best Management Practices (BMPs) for erosion and sediment control during construction, we believe the physical activity of construction will not result in any impacts to the wetland resource areas. As such, we respectfully request that the Commission consider issuance of an Order of Conditions to permit to work described herein. Thank you for your consideration in this matter.

Regards,  
Hancock Associates on behalf of Mr. Charles Cochrane,



Kristan Farr  
Project Wetland Scientist

**cc: MassDEP Northeast Regional Office (EDEP)**

#### Attachments:

- A – WPA Form 3 (EDEP Copy)
- B – Filing Fees
- C – Abutter Notification
- D – Figures
- E – NHESP Notification Letter
- F – Permit Site Plan



Massachusetts Department of Environmental Protection

# eDEP Transaction Copy

---

Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username: **KFARRHSA**

Transaction ID: **1440630**

Document: **WPA Form 3 - NOI**

Size of File: **247.97K**

Status of Transaction: **In Process**

Date and Time Created: **11/3/2022:12:17:12 PM**

**Note:** This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to "Download a Copy" from the Current Submittals page.

**Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

**WPA Form 3 - Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
MassDEP File #:  
eDEP Transaction #:1440630  
City/Town:BOXFORD

**A.General Information**

1. Project Location:

a. Street Address	18 CHADWICK FARM ROAD		
b. City/Town	BOXFORD	c. Zip Code	01921
d. Latitude	42.72458N	e. Longitude	71.04617W
f. Map/Plat #	6	g.Parcel/Lot #	2-10

2. Applicant:

Individual    Organization

a. First Name	CHARLES	b.Last Name	COCHRANE		
c. Organization					
d. Mailing Address	18 CHADWICK FARM ROAD				
e. City/Town	BOXFORD	f. State	MA	g. Zip Code	
h. Phone Number	978-873-1731	i. Fax		j. Email	ccochrane@cochraneventilation.com

3.Property Owner:

more than one owner

a. First Name	CHARLES	b. Last Name	COCHRANE		
c. Organization					
d. Mailing Address	18 CHADWICK FARM ROAD				
e. City/Town	BOXFORD	f.State	MA	g. Zip Code	
h. Phone Number		i. Fax		j.Email	

4.Representative:

a. First Name	KRISTAN	b. Last Name	FARR		
c. Organization	HANCOCK ASSOCIATES				
d. Mailing Address	185 CENTRE STREET				
e. City/Town	DANVERS	f. State	MA	g. Zip Code	03049
h.Phone Number	978-777-3050	i.Fax		j.Email	kfarr@hancockassociates.com

5.Total WPA Fee Paid (Automatically inserted from NOI Wetland Fee Transmittal Form):

a.Total Fee Paid	110.00	b.State Fee Paid	42.50	c.City/Town Fee Paid	67.50
------------------	--------	------------------	-------	----------------------	-------

6.General Project Description:

RELOCATION OF EXISTING DRINKING WATER WELL

7a.Project Type:

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Single Family Home     | 2. <input type="checkbox"/> Residential Subdivision                  |
| 3. <input type="checkbox"/> Limited Project Driveway Crossing | 4. <input type="checkbox"/> Commercial/Industrial                    |
| 5. <input type="checkbox"/> Dock/Pier                         | 6. <input type="checkbox"/> Utilities                                |
| 7. <input type="checkbox"/> Coastal Engineering Structure     | 8. <input type="checkbox"/> Agriculture (eg., cranberries, forestry) |
| 9. <input type="checkbox"/> Transportation                    | 10. <input type="checkbox"/> Other                                   |

7b.Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?



**Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

**WPA Form 3 - Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 MassDEP File #:  
 eDEP Transaction #:1440630  
 City/Town:BOXFORD

1.  Yes  No      If yes, describe which limited project applies to this project:  
 2. Limited Project

8. Property recorded at the Registry of Deeds for:

<b>a. County:</b>	<b>b. Certificate:</b>	<b>c. Book:</b>	<b>d. Page:</b>
SOUTHERN ESSEX		33198	494

**B. Buffer Zone & Resource Area Impacts (temporary & permanent)**

1. Buffer Zone & Resource Area Impacts (temporary & permanent):

This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2. Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
---------------	-----------------------------	-------------------------------

a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
----------------------------------	----------------	----------------

b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
---	----------------	----------------

c. <input type="checkbox"/> Land under Waterbodies and Waterways	1. Square feet	2. square feet
--	----------------	----------------

	3. cubic yards dredged	
--	------------------------	--

d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
--	----------------	----------------

	3. cubic feet of flood storage lost	4. cubic feet replaced
--	-------------------------------------	------------------------

e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
---	----------------	--

	2. cubic feet of flood storage lost	3. cubic feet replaced
--	-------------------------------------	------------------------

f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if any)	
---	------------------------------	--

2. Width of Riverfront Area (check one)	<input type="checkbox"/> 25 ft. - Designated Densely Developed Areas only
	<input type="checkbox"/> 100 ft. - New agricultural projects only
	<input type="checkbox"/> 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project	square feet
--	-------------

4. Proposed Alteration of the Riverfront Area:	
a. total square feet	b. square feet within 100 ft.
	c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI?       Yes  No

**Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

**WPA Form 3 - Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 MassDEP File #:  
 eDEP Transaction #:1440630  
 City/Town:BOXFORD

6. Was the lot where the activity is proposed created prior to August 1, 1996?  Yes  No

**3.Coastal Resource Areas: (See 310 CMR 10.25 - 10.35)**

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Designated Port Areas	Indicate size under	Land under the ocean below,
b. <input type="checkbox"/> Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes, below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment
f. <input type="checkbox"/> Coastal Banks	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet	
h. <input type="checkbox"/> Salt Marshes	1. square feet	2. sq ft restoration, rehab, crea.
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. square feet	

**4.Restoration/Enhancement**

Restoration/Replacement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please entered the additional amount here.

a. square feet of BVW b. square feet of Salt Marsh

**5.Projects Involves Stream Crossings**

Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.



□ **Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

**WPA Form 3 - Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File #:

eDEP Transaction #:1440630

City/Town:BOXFORD

---

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

\* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?

a.  Not applicable - project is in inland resource area only

b.  Yes  No

If yes, include proof of mailing or hand delivery of NOI to either:

South Shore - Cohasset to Rhode Island, and the Cape & Islands:

North Shore - Hull to New Hampshire:

Division of Marine Fisheries -  
Southeast Marine Fisheries Station  
Attn: Environmental Reviewer  
836 S. Rodney French Blvd  
New Bedford, MA 02744

Division of Marine Fisheries -  
North Shore Office  
Attn: Environmental Reviewer  
30 Emerson Avenue  
Gloucester, MA 01930

If yes, it may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office.

For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a.  Yes  No

If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a.  Yes  No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?

a.  Yes  No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a.  Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook

Vol.2, Chapter 3)

2.  A portion of the site constitutes redevelopment

3.  Proprietary BMPs are included in the Stormwater Management System

b.  No, Explain why the project is exempt:

1.  Single Family Home

2.  Emergency Road Repair

**Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

**WPA Form 3 - Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
MassDEP File #:  
eDEP Transaction #:1440630  
City/Town:BOXFORD

3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

**D. Additional Information**

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department by regular mail delivery.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s)).
4. Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. List the titles and dates for all plans and other materials submitted with this NOI.

<b>a. Plan Title:</b>	<b>b. Plan Prepared By:</b>	<b>c. Plan Signed/Stamped By:</b>	<b>c. Revised Final Date:</b>	<b>e. Scale:</b>
NOTICE OF INTENT PLAN	HANCOCK ASSOCIATES	CHARLES E. WEAR, III, P.E.	November 3, 2022	1"=20'

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. Attach NOI Wetland Fee Transmittal Form.
9. Attach Stormwater Report, if needed.

**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands  
**WPA Form 3 - Notice of Intent**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
MassDEP File #:  
eDEP Transaction #:1440630  
City/Town:BOXFORD

**E. Fees**

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

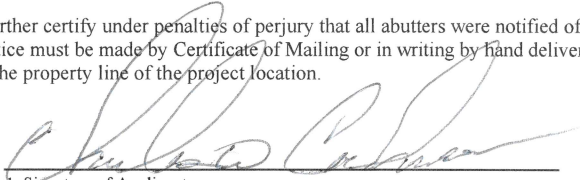
Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

<u>8883</u>	<u>10/26/2022</u>
2. Municipal Check Number	3. Check date
<u>4. State Check Number</u>	<u>5. Check date</u>
<u>Charles</u>	<u>Cochrane</u>
6. Payer name on check: First Name	7. Payer name on check: Last Name

**F. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

 1. Signature of Applicant	<u>10-26-22</u> 2. Date
 3. Signature of Property Owner(if different)	 4. Date
 5. Signature of Representative (if any)	 6. Date

**For Conservation Commission:**

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

**For MassDEP:**

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a copy of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

**Other:**

If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**WPA Form 3 - Notice of Wetland Fee Transmittal**  
**Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 MassDEP File #:  
 eDEP Transaction #:1440630  
 City/Town:BOXFORD

**A. Applicant Information**

1. Applicant:

a. First Name	CHARLES	b. Last Name	COCHRANE
c. Organization			
d. Mailing Address	18 CHADWICK FARM ROAD		
e. City/Town	BOXFORD	f. State	MA
g. Zip Code			
h. Phone Number	9788731731	i. Fax	
j. Email	ccochrane@cochraneventilation.com		

2. Property Owner:(if different)

a. First Name	CHARLES	b. Last Name	COCHRANE
c. Organization			
d. Mailing Address	18 CHADWICK FARM ROAD		
e. City/Town	BOXFORD	f. State	MA
g. Zip Code			
h. Phone Number		i. Fax	
j. Email			

3. Project Location:

a. Street Address	18 CHADWICK FARM ROAD	b. City/Town	BOXFORD
-------------------	-----------------------	--------------	---------

Are you exempted from Fee?

**Note:** Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than \$100

**B. Fees**

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
A.) WORK ON SINGLE FAMILY LOT; ADDITION, POOL, ETC.;	1	110.00		110.00
	City/Town share of filling fee	\$67.50	State share of filing fee	\$42.50
			Total Project Fee	\$110.00

Joanne E. Cochrane  
Charles W. Cochrane  
18 Chadwick Farm Rd.  
Boxford, Ma 01921

53-179/113

8882

Date 10/26/22


Pay to  
the order

Town of Boyford

\$ 475.00

Four Hundred Seventy-five <sup>00</sup>/<sub>100</sub> Dollars

Security Features  
Included.  
Details on Back.

 Eastern Bank

Boston, MA 02110  
easternbank.com  
1-800-EASTERN

Memo bylaw filing fee

Joanne E. Cochrane MP



Courtesy © 2003 Thomas Kinkadee

THOMAS KINKADEE

Joanne E. Cochrane  
Charles W. Cochrane  
18 Chadwick Farm Rd.  
Boxford, Ma 01921

53-179/113

8883

Date 10/26/22


Pay to  
the order

Town of Boyford

\$ 122.50

One Hundred Twenty-two <sup>50</sup>/<sub>100</sub> Dollars

Security Features  
Included.  
Details on Back.

 Eastern Bank

Boston, MA 02110  
easternbank.com  
1-800-EASTERN

Memo local portion-  
state fees

Joanne E. Cochrane MP



The Sea of Tranquility © 1996 Thomas Kinkadee

THOMAS KINKADEE



# HANCOCK ASSOCIATES

Surveyors | Engineers | Scientists

#25409

November 3, 2022

MA Division of Fisheries and Wildlife  
Natural Heritage and Endangered Species Program  
1 Rabbit Hill Road  
Westborough, MA 01581

**RE: Notification of Exempt Work Activities within Mapped Priority Habitat  
18 Chadwick Farm Road, Boxford, MA (PH 2136)**

To Whom It May Concern:

On behalf of Charles Cochrane (homeowner), Hancock Associates is hereby notifying the Massachusetts Natural Heritage and Endangered Species Program (NHESP) of his intention to install a new drinking water well accessory to an existing single-family home within mapped NHESP Estimated and Priority for Rare Species Habitat (PH 2136) as an exempt activity. The well is proposed at 18 Chadwick Farm Road in Boxford, MA (identified as Map 6, Lot 2-10 on Town of Boxford Assessors Maps). Work will be performed as an exempt activity pursuant to 321 CMR 10.14(5) which permits, *“construction or removal of structures that are secondary to the primary residence and located within existing paved areas and lawfully developed and maintained lawns or landscaped areas on residential properties, provided there is no expansion of such existing paved, lawn and landscaped areas”*.

Work will entail the installation of a drinking water well to the east of the existing home over what exists entirely as lawfully maintained turf lawn. As such, there will be no removal of native vegetation associated with the work.

As construction is proposed within the 100-ft Buffer Zone to a Bordering Vegetated Wetlands (BVW), the applicant is concurrently filing a Notice of Intent (NOI) with the Town of Boxford Conservation Commission.

As all work is located within lawfully maintained, existing lawn/disturbed yard, we respectfully request that NHESP permit the conversion of maintained lawn to a well as a “no take” as a MESA exempt activity. Please refer to attached site photos and site plan that characterize and detail the area of work.

Work is anticipated to begin next spring, following receipt of an Order of Conditions from the Boxford Conservation Commission and issuance of building permits from the Town of Boxford.

# HANCOCK ASSOCIATES

Surveyors | Engineers | Scientists

Please notify us at once if NHESP has any additional questions or concerns or feels that the construction of the garage exceeds the threshold to qualify as an exempt activity and will require submittal of a MESA Project Review Checklist in request of NHESP making a formal “determination of take” for the work proposed herein. Thank you for your consideration in this matter.

Regards,



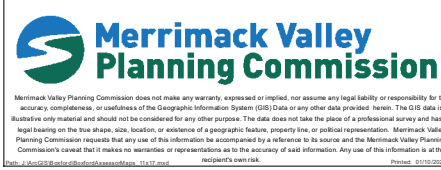
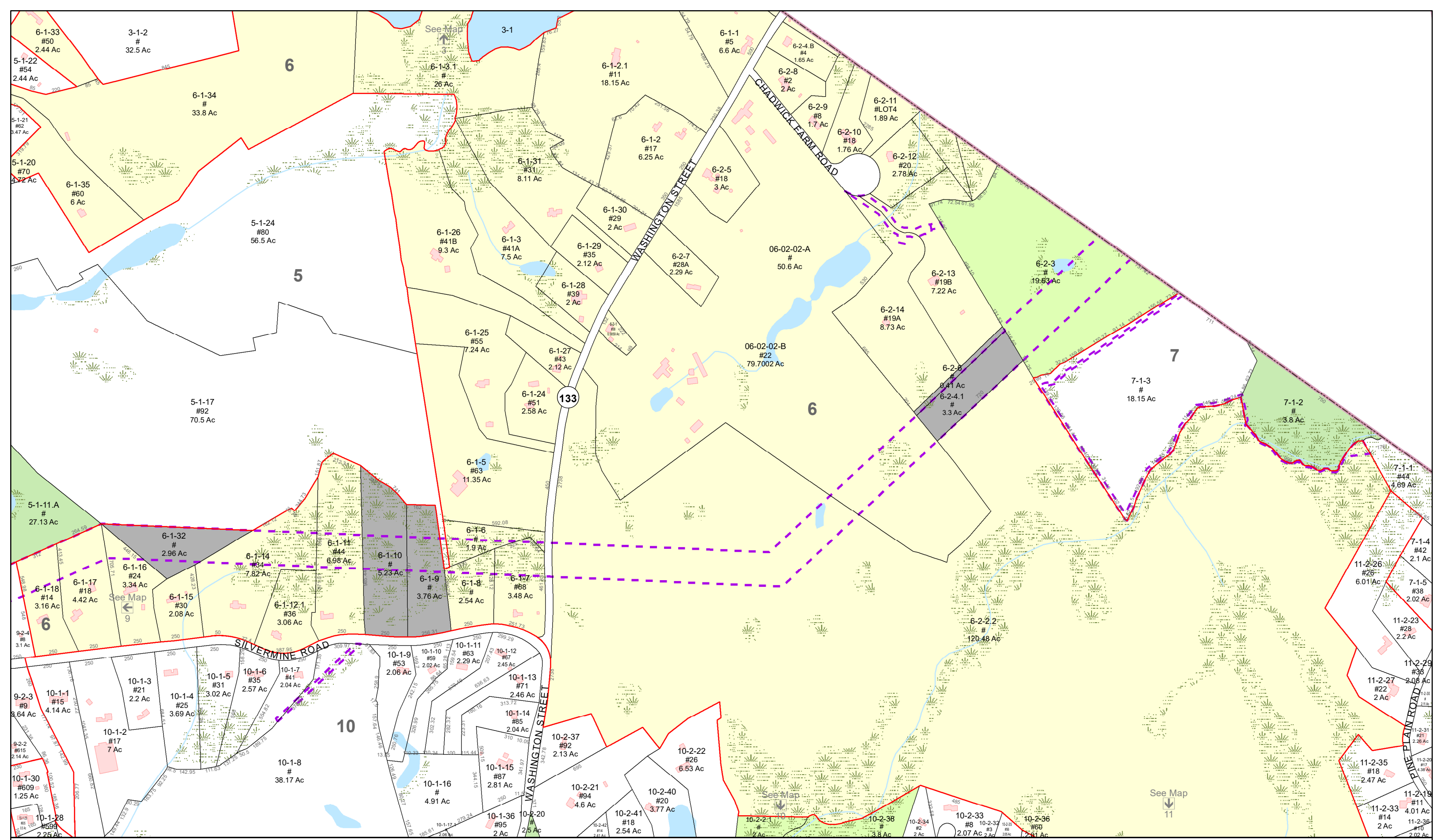
Kristan Farr  
Project Wetland Scientist

cc: Town of Boxford Conservation Commission  
Charles Cochrane (homeowner)

Attachments:

A – Site Photos

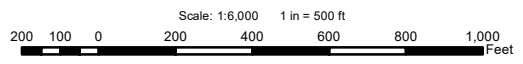
B – Site Plans



**Notes**  
 This map is for assessment purposes only. It is not a valid document for legal description or conveyance. Lot dimensions were compiled from existing assessor maps and survey based plans. For legal determination please refer to parcel specific deeds or the Town of Boxford Assessor Office.  
 \* Wetlands Note: The wetlands shown on the map do not depict their actual extent or boundary. A wetlands scientist should be consulted if a delineation is required.

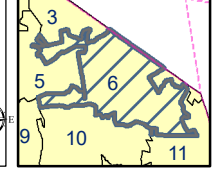
Map Revision Date: January 1, 2021

**Town of Boxford  
 Property Parcel Maps  
 6**



**Legend**

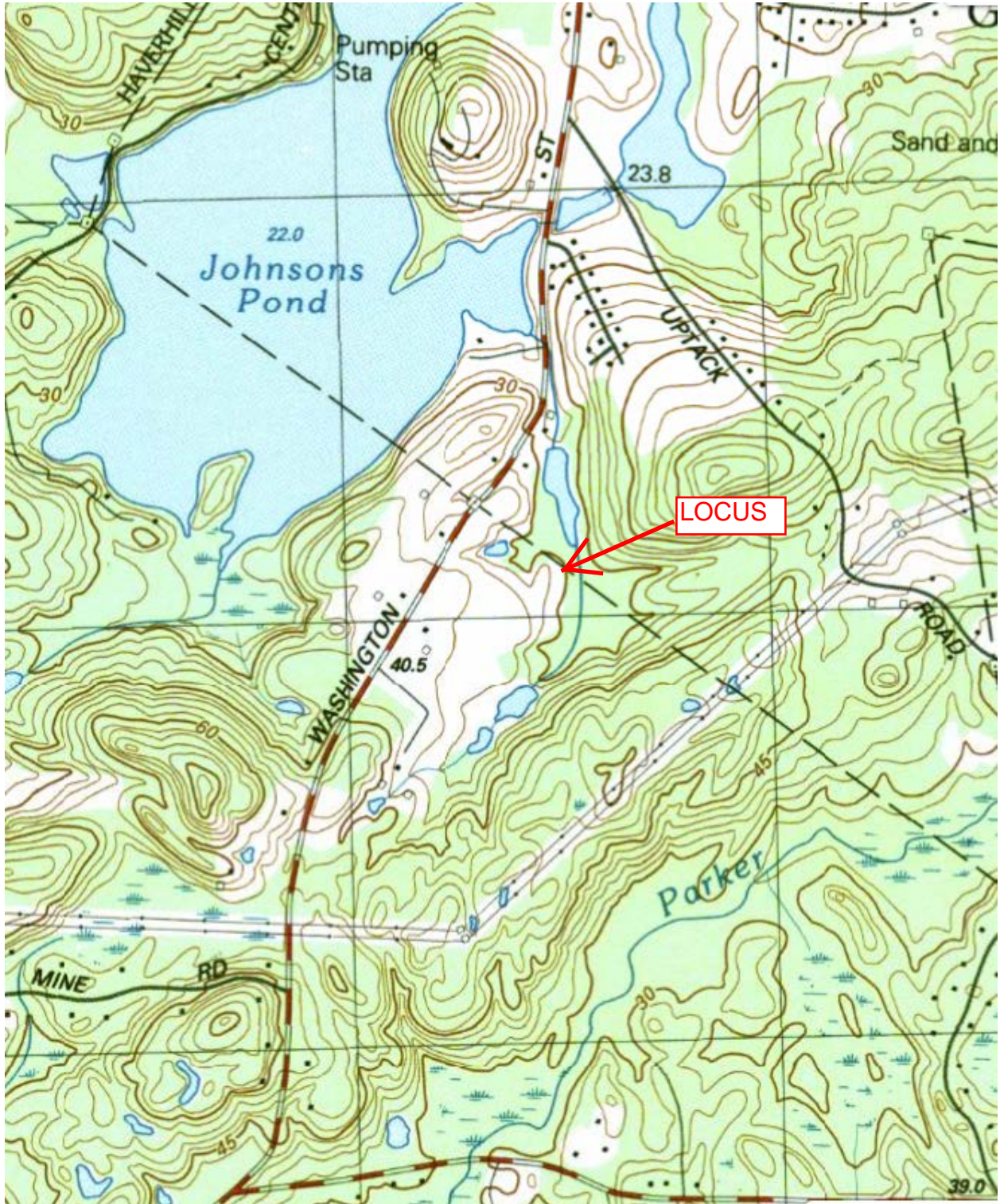
Adjacent Maps	Streams
Town Boundaries	Wetlands
Map Boundaries	Commercial Land Use
Property Parcels	Industrial Land Use
Easements	State
Building Footprint	County
Hydrographic Features	Municipal
	Private



# HANCOCK ASSOCIATES

Surveyors | Engineers | Scientists

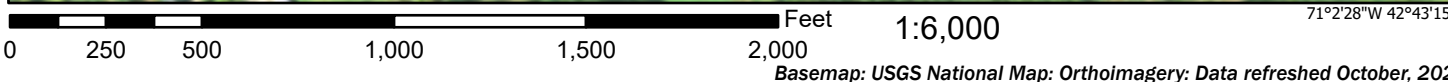
Locus Map: 18 Chadwick Farm Road, Boxford



# National Flood Hazard Layer FIRMMette



71°3'5"W 42°43'41"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		8 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **9/29/2022 at 10:43 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

**ASSESSORS:**

MAP 06, BLOCK 02, LOT 10

**REFERENCES:**

DEED BOOK 33198, PAGE 494  
PLAN BOOK 264 PLAN 28

**RECORD OWNER:**

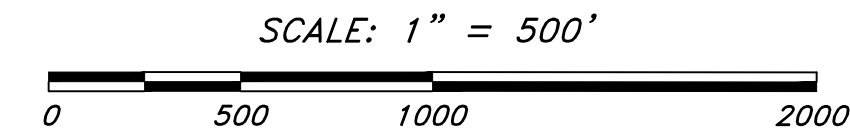
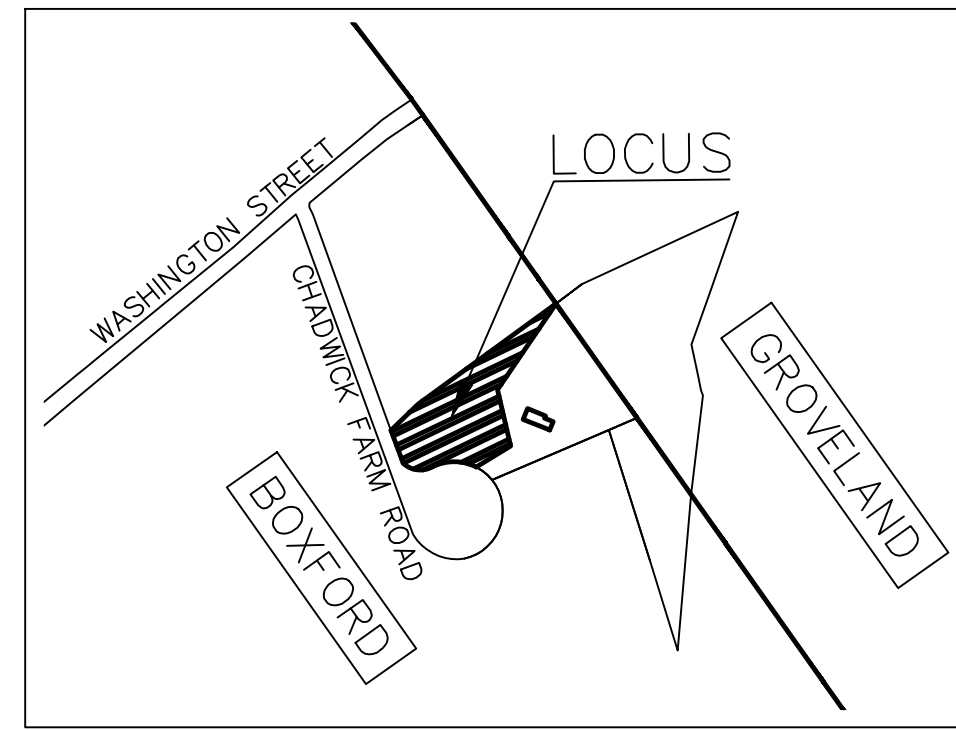
JOANNE E. COCHRANE 2008 TRUST

**SURVEY NOTES:**

1) UTILITIES SHOWN HEREON FROM FIELD LOCATIONS OF SURFACE STRUCTURES. NO UNDERGROUND UTILITIES WERE INCLUDED AS PART OF THIS SURVEY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.

2) BORDERING VEGETATED WETLAND (BVW) AND MAHW (RIVERFRONT) ASSOCIATED WITH AN UNNAMED USGS MAPPED PERENNIAL RIVER WERE FIELD DELINEATION BY A WETLAND PROFESSIONAL IN TRAINING SCIENTIST (WPIT®) AND ANOTHER WETLAND STAFF MEMBER ON NOVEMBER 1, 2021 IN ACCORDANCE WITH MASSDEP WETLAND DELINEATION STANDARDS.

3) CONTRACTOR TO ENSURE A 150' SEPARATION FROM THE PROPOSED WELL AND THE SUBSURFACE SEWAGE DISPOSAL SYSTEM ON THE ADJUTING LOT TO THE SOUTH WEST.



**LEGEND**

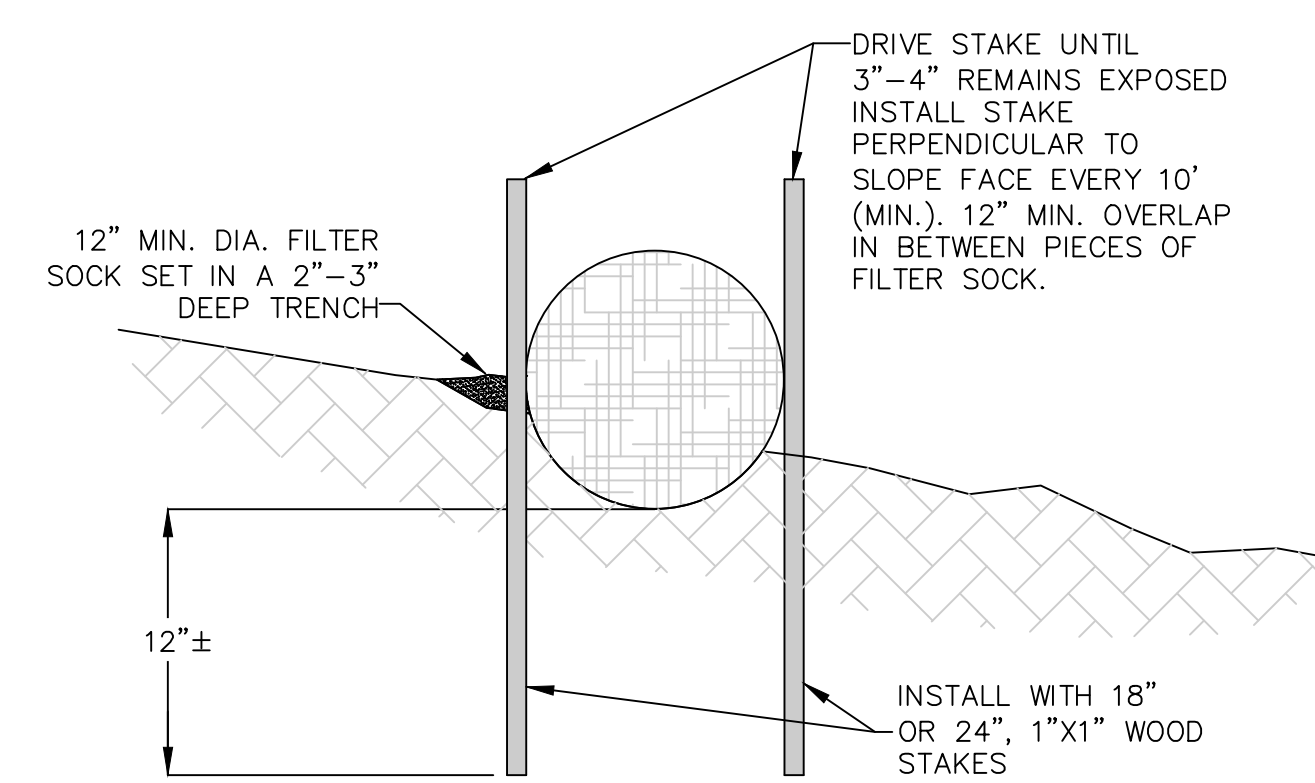
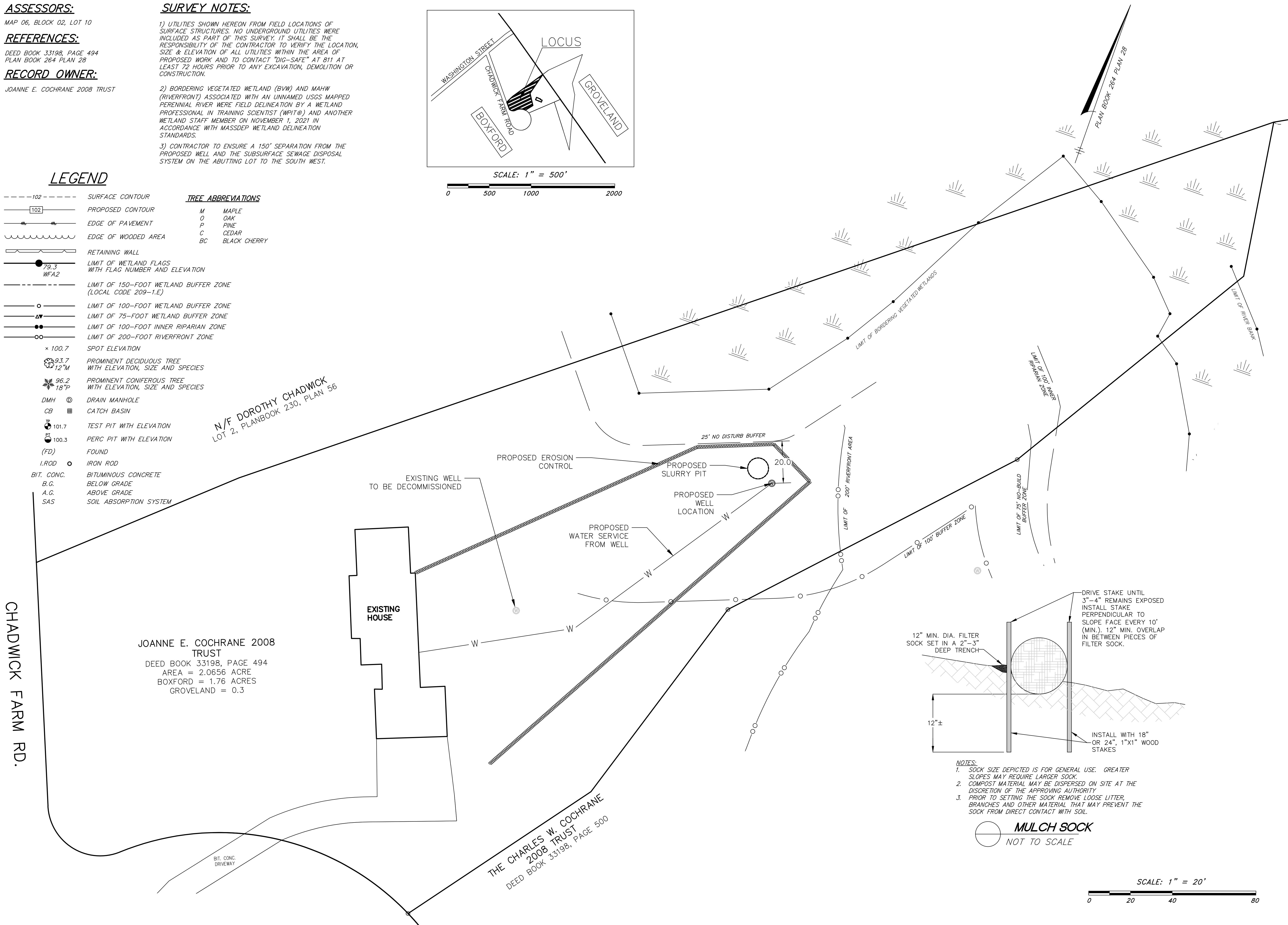
- |              |  |                           |
|--------------|--|---------------------------|
| ---102---    | SURFACE CONTOUR  | <b>TREE ABBREVIATIONS</b> |
| ---102---    | PROPOSED CONTOUR   | M MAPLE                   |
| ---          | EDGE OF PAVEMENT   | O OAK                     |
| ---          | EDGE OF WOODED AREA  | P PINE                    |
| ---          | RETAINING WALL   | C CEDAR                   |
| ---          | LIMIT OF WETLAND FLAGS WITH FLAG NUMBER AND ELEVATION      | BC BLACK CHERRY           |
| ---          | LIMIT OF 150-FOOT WETLAND BUFFER ZONE (LOCAL CODE 209-1.E) |                           |
| ---          | LIMIT OF 100-FOOT WETLAND BUFFER ZONE                      |                           |
| ---          | LIMIT OF 75-FOOT WETLAND BUFFER ZONE                       |                           |
| ---          | LIMIT OF 100-FOOT INNER RIPARIAN ZONE                      |                           |
| ---          | LIMIT OF 200-FOOT RIVERFRONT ZONE                          |                           |
| x 100.7      | SPOT ELEVATION   |                           |
| 93.7<br>12"M | PROMINENT DECIDUOUS TREE WITH ELEVATION, SIZE AND SPECIES  |                           |
| 96.2<br>18"P | PROMINENT CONIFEROUS TREE WITH ELEVATION, SIZE AND SPECIES |                           |
| DMH          | DRAIN MANHOLE  |                           |
| CB           | CATCH BASIN  |                           |
| TP 101.7     | TEST PIT WITH ELEVATION                                    |                           |
| PT 100.3     | PERC PIT WITH ELEVATION                                    |                           |
| (FD)         | FOUND  |                           |
| I.ROD        | IRON ROD   |                           |
| BIT. CONC.   | BITUMINOUS CONCRETE  |                           |
| B.G.         | BELOW GRADE  |                           |
| A.G.         | ABOVE GRADE  |                           |
| SAS          | SOIL ABSORPTION SYSTEM                                     |                           |

N/F DOROTHY CHADWICK  
LOT 2, PLANBOOK 230, PLAN 56

JOANNE E. COCHRANE 2008 TRUST  
DEED BOOK 33198, PAGE 494  
AREA = 2.0656 ACRE  
BOXFORD = 1.76 ACRES  
GROVELAND = 0.3

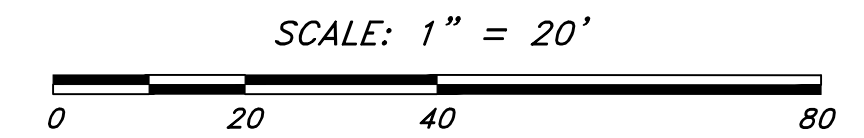
CHADWICK FARM RD.

THE CHARLES W. COCHRANE  
2008 TRUST  
DEED BOOK 33198, PAGE 500



- NOTES:**
- SOCK SIZE DEPICTED IS FOR GENERAL USE. GREATER SLOPES MAY REQUIRE LARGER SOCK.
  - COMPOST MATERIAL MAY BE DISPERSED ON SITE AT THE DISCRETION OF THE APPROVING AUTHORITY.
  - PRIOR TO SETTING THE SOCK REMOVE LOOSE LITTER, BRANCHES AND OTHER MATERIAL THAT MAY PREVENT THE SOCK FROM DIRECT CONTACT WITH SOIL.

**MULCH SOCK**  
NOT TO SCALE



#18  
Chadwick Farm  
Road

Boxford, Massachusetts

PREPARED FOR:

Charles W.  
Cochrane  
220 Ballardvale Street  
Wilmington, Massachusetts 01887

**HANCOCK  
ASSOCIATES**

Civil Engineers  
Land Surveyors  
Environmental  
Consultants

185 CENTRE STREET, DANVERS, MA 01923  
VOICE (978) 777-3050, FAX (978) 774-7816  
WWW.HANCOCKASSOCIATES.COM




NO.	BY	APP.	DATE	ISSUE/REVISION	DESCRIPTION

DATE: 11/3/22 DESIGN BY: CEW  
SCALE: AS SHOWN DRAWN BY: CFB  
CHECK BY: CEW

**NOTICE  
OF  
INTENT  
PLAN**

DWG: 25409rda-well.dwg  
LAYOUT: SDS  
SHEET: 1 OF 1  
JOB NO.: 25409

1

**GENERAL NOTES**

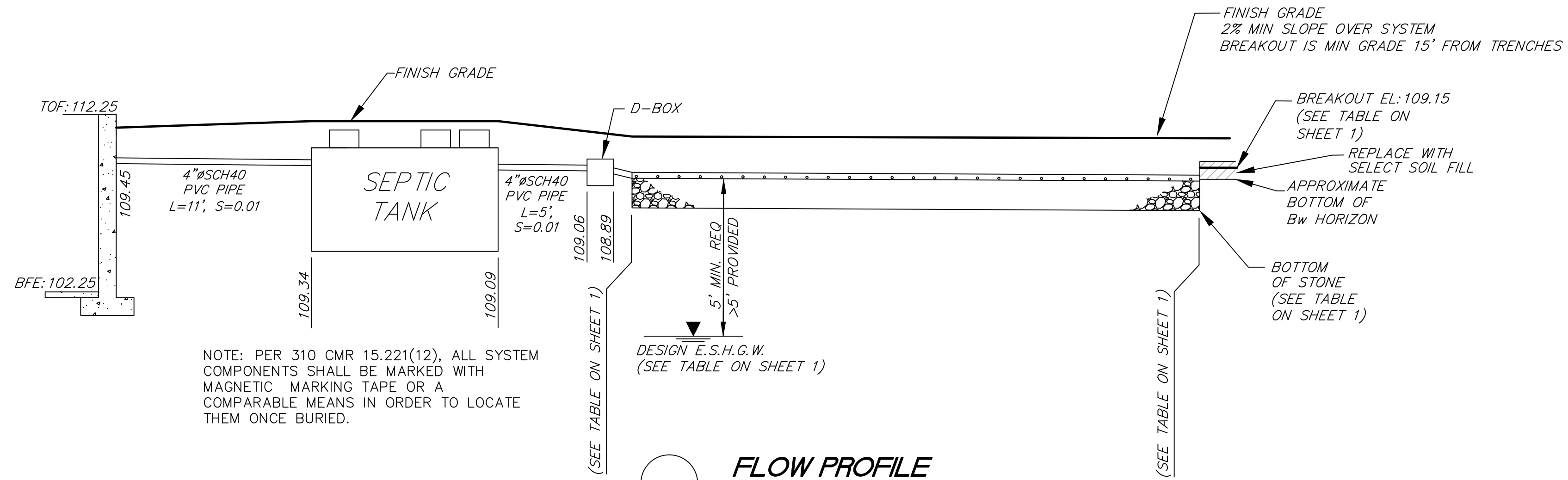
- LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.
- UNLESS OTHERWISE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.
- CONTRACTOR SHALL FURNISH CONSTRUCTION LAYOUT OF SEPTIC SYSTEM, AND SITE IMPROVEMENTS. THIS WORK SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR.
- SAFETY MEASURES, CONSTRUCTION METHODS AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND/OR REMOVAL HEREON. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.
- ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.
- RIM ELEVATIONS SHOWN FOR NEW STRUCTURES ARE APPROXIMATE AND ARE PROVIDED TO ASSIST CONTRACTOR WITH MATERIAL TAKEOFFS. FINISH RIM ELEVATIONS SHOULD MATCH PAVEMENT, GRADING, OR LANDSCAPING, UNLESS SPECIFICALLY INDICATED OTHERWISE.
- WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH OWNER REQUIREMENTS.
- ALL WORK ON SEWAGE DISPOSAL SYSTEM SHALL BE COMPLETED BY A LICENSED "DISPOSAL WORKS INSTALLER."
- THE ISSUANCE OF A PERMIT TO CONSTRUCT, OR A CERTIFICATE OF COMPLIANCE, SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE DISPOSAL SYSTEM WILL FUNCTION SATISFACTORILY.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND RELATIVE ELEVATION OF BENCH MARKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
- STRUCTURE DETAILS FROM INDEPENDENT VENDORS ARE CONSTANTLY CHANGING. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT DETAILS SHOWN MATCH CURRENT DETAILS AND SPECIFICATIONS FROM VENDORS.
- BACKWASH FROM A WATER SOFTENER SHALL NOT BE DISCHARGED INTO THE SUBSURFACE SEWAGE DISPOSAL SYSTEM, BUT INTO A SEPARATE DRY WELL OR ONTO GROUND PER 310 CMR 15.004(9).
- PERIMETER OF SOIL ABSORPTION SYSTEM TO BE STAKED AND FLAGGED FROM BEFORE CONSTRUCTION UNTIL ISSUANCE OF CERTIFICATE OF COMPLIANCE, 15.246(2).
- NO CHANGES ARE TO BE MADE IN THE FIELD WITHOUT THE APPROVAL OF THE BOARD OF HEALTH OR ITS DESIGNEE AND THE DESIGN ENGINEER.
- PER 310 CMR 15.221(12), ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.

**SITE NOTES**

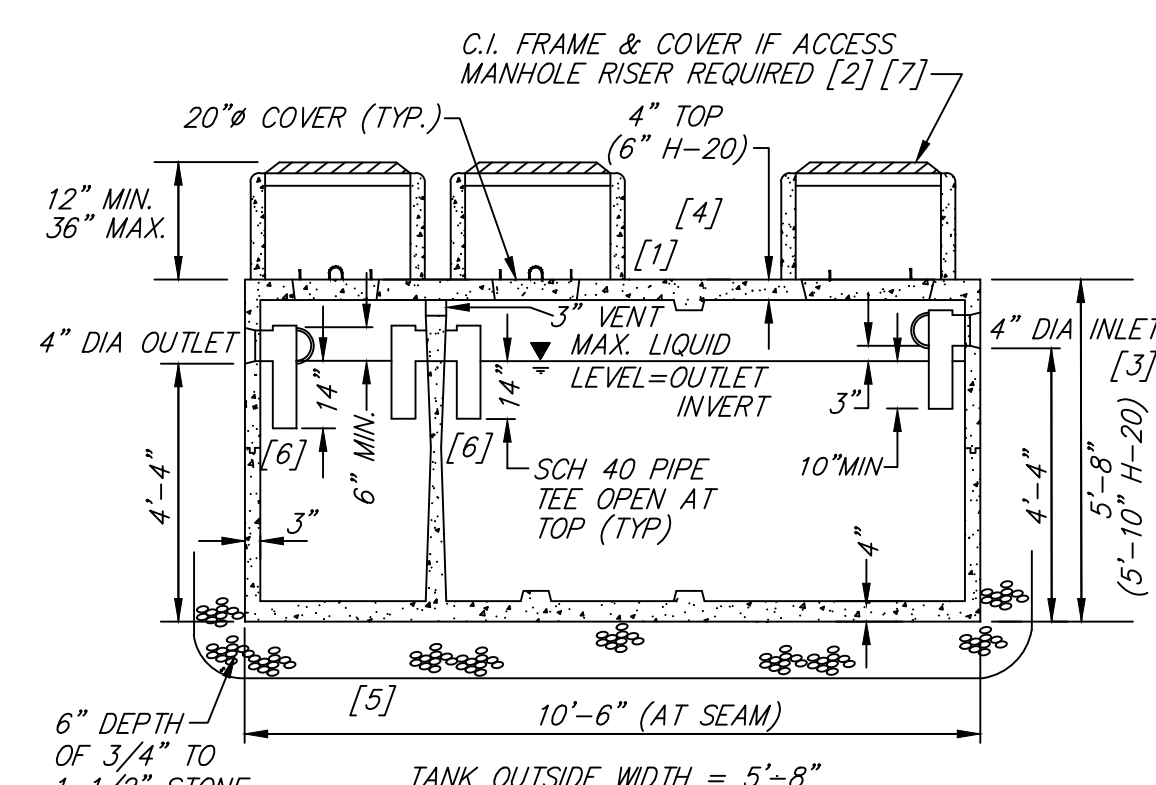
- ALL SEWAGE DISPOSAL SYSTEM COMPONENTS ARE GREATER THAN 400 FEET AWAY FROM SURFACE WATER RESERVOIRS AND GREATER THAN 400 FEET FROM TRIBUTARIES TO SURFACE WATER RESERVOIRS.
- ALL SEWAGE DISPOSAL SYSTEM COMPONENTS ARE GREATER THAN 300 FEET AWAY FROM GREAT PONDS AS DEFINED BY TOWN OF BOXFORD BYLAWS 2.4.201.15
- THERE ARE NO WELLS WITHIN 150 FEET OF THE SOIL ABSORPTION AREA.
- SITE DOES NOT LIE WITHIN A NITROGEN SENSITIVE AREA.
- EROSION CONTROL SHOWN HEREON SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS, AND SHALL SERVE AS THE LIMIT OF WORK.
- 2 (TWO) BENCHMARKS TO BE SET ON SITE PER TITLE V.

**REGULATORY NOTES**

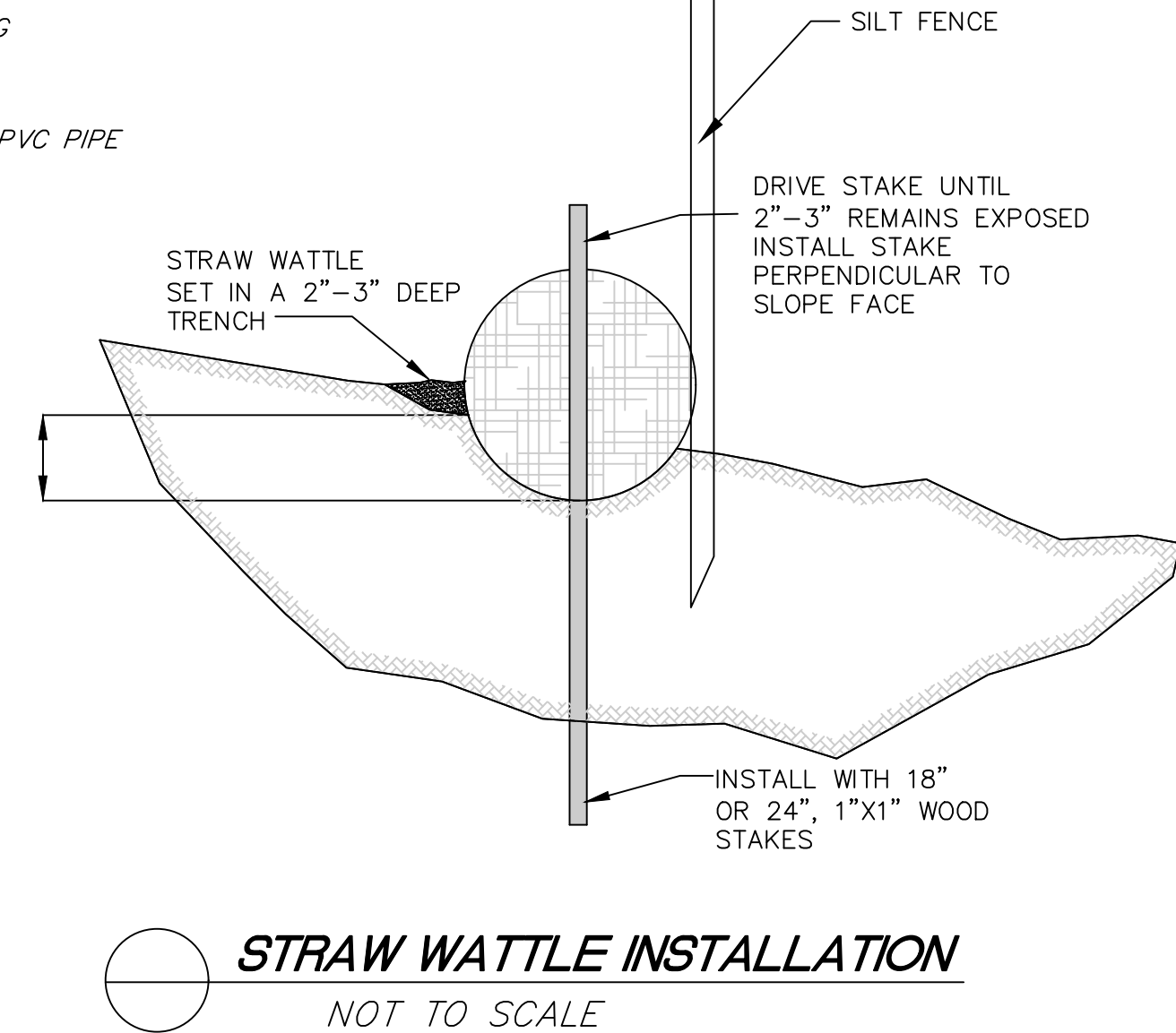
- CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 811 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
- CONTRACTOR SHALL MAKE HIMSELF AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
- ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATIONS SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.
- ALL WORK SHALL COMPLY WITH TITLE V AND LOCAL BOARD OF HEALTH REGULATIONS EXCEPT AS PROVIDED BY APPROVED WAIVERS.



**FLOW PROFILE**  
TYPICAL CROSS SECTION  
SCALE: 1"=5'

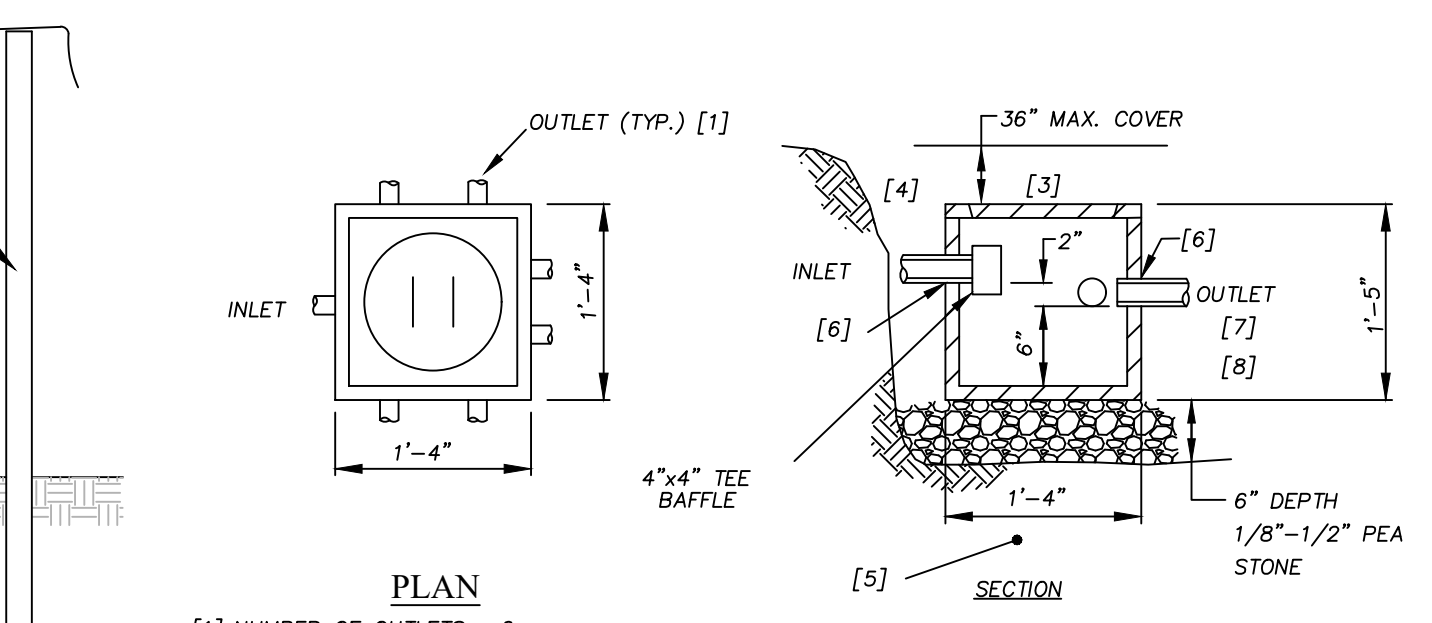


**INSPECTION PORTAL DETAIL**  
TYPICAL CROSS SECTION  
NOT TO SCALE



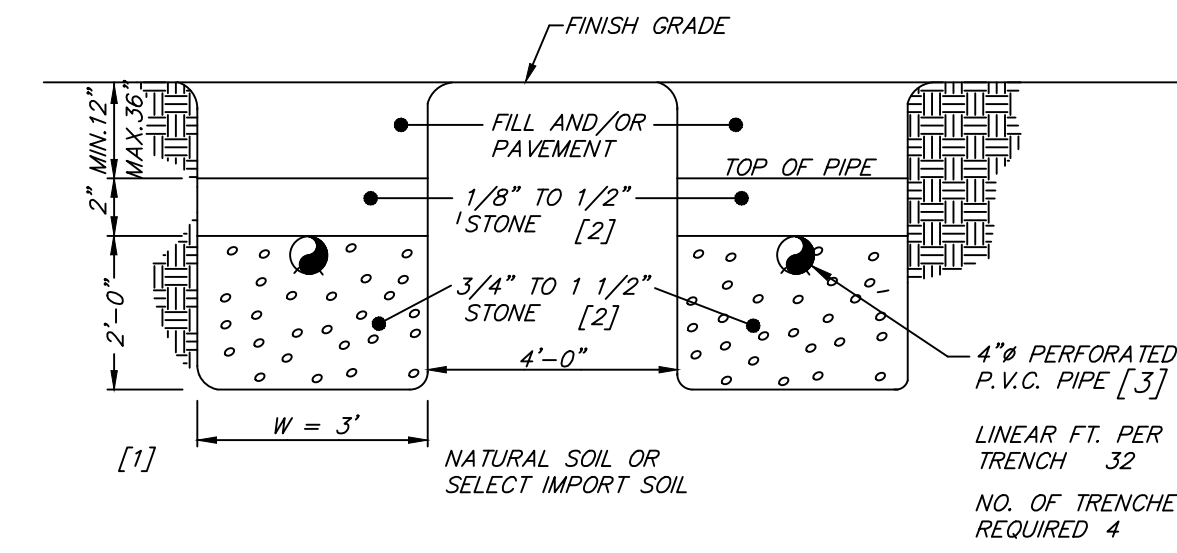
**STRAW WATTLE INSTALLATION**  
NOT TO SCALE

**1000/500 GAL. MONOLITHIC SEPTIC TANK**  
(310 CMR 15.223 - 15.227)  
TYPICAL CROSS SECTION  
NOT TO SCALE



- PLAN**
- NUMBER OF OUTLETS: 6
  - LOAD RATING: H20
  - MANHOLE RISER REQUIRED: NO, APPROXIMATE DEPTH OF COVER OVER D-BOX: 6 INCHES. DISTRIBUTION BOXES BURIED GREATER THAN 9 INCHES BELOW GRADE SHALL BE EQUIPPED WITH RISERS.
  - WHERE UNDER OR ADJACENT AREA TO BE PAVED, COMPACT BACKFILL TO 95% PER ASTM D-1557.
  - UNDISTURBED SOIL OR SUBGRADE COMPACTED TO 95% PER ASTM D-1557.
  - ALL OPENINGS SEALED WATER-TIGHT.
  - ALL OUTLET PIPE INVERTS AT SAME ELEVATION, LAID LEVEL FOR 2 FEET DOWNSTREAM FROM DISTRIBUTION BOX.
  - ALL OUTLETS TO BE FITTED WITH FLOW REGULATING DEVICES UNLESS INLET IS A FORCE MAIN.

**6-OUTLET DISTRIBUTION BOX**  
(310 CMR 15.232)  
NOT TO SCALE



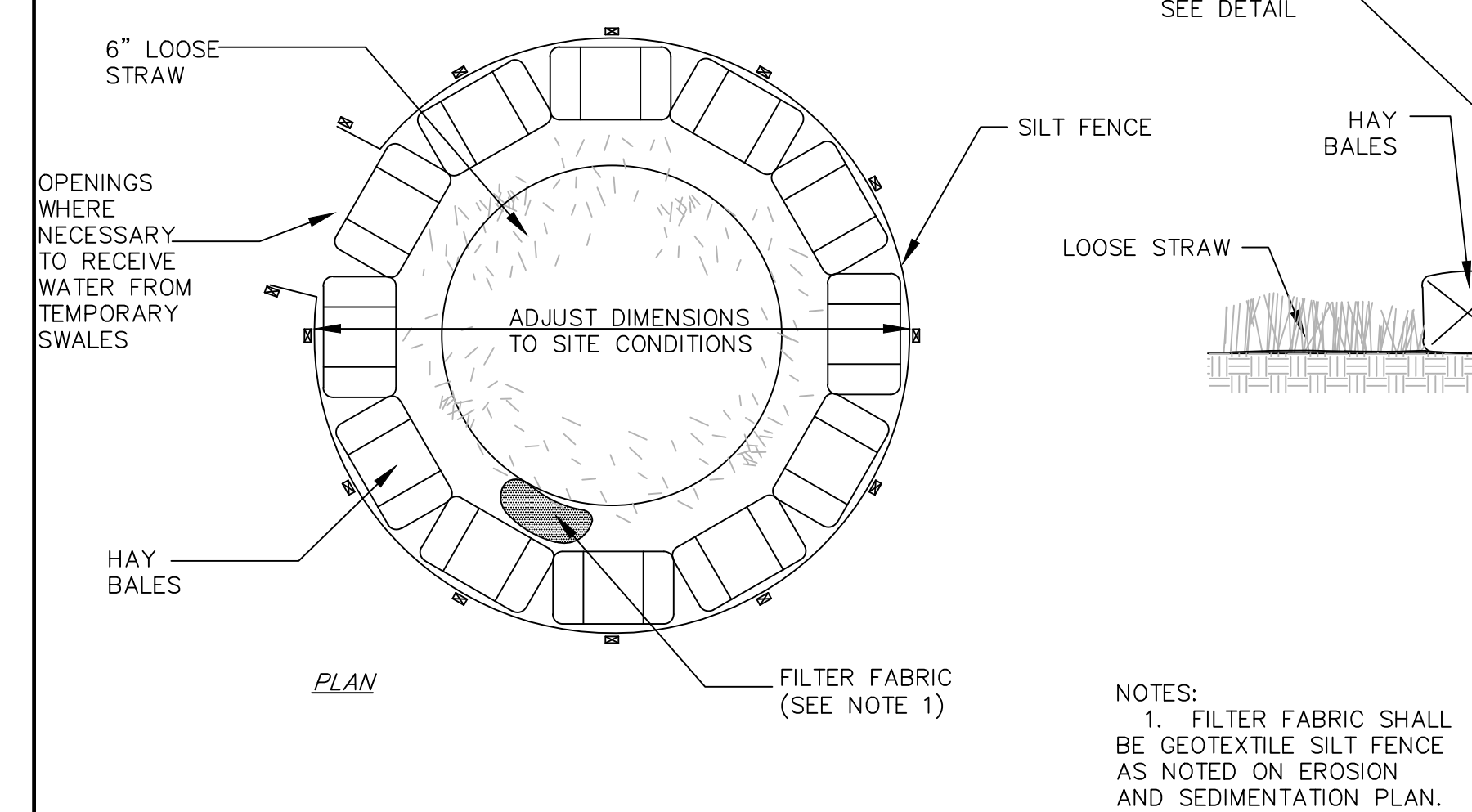
- ENTIRE BOTTOM OF SOIL ABSORPTION AREA SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES JUST PRIOR TO PLACEMENT OF STONE.
- ALL STONE SHALL BE DOUBLE WASHED.
- ENDS OF DISTRIBUTION PIPE SHALL BE CAPPED UNLESS SYSTEM IS VENTED.

**SOIL ABSORPTION AREA TRENCHES**  
(310 CMR 15.240-15.253)  
TYPICAL CROSS SECTION  
NOT TO SCALE

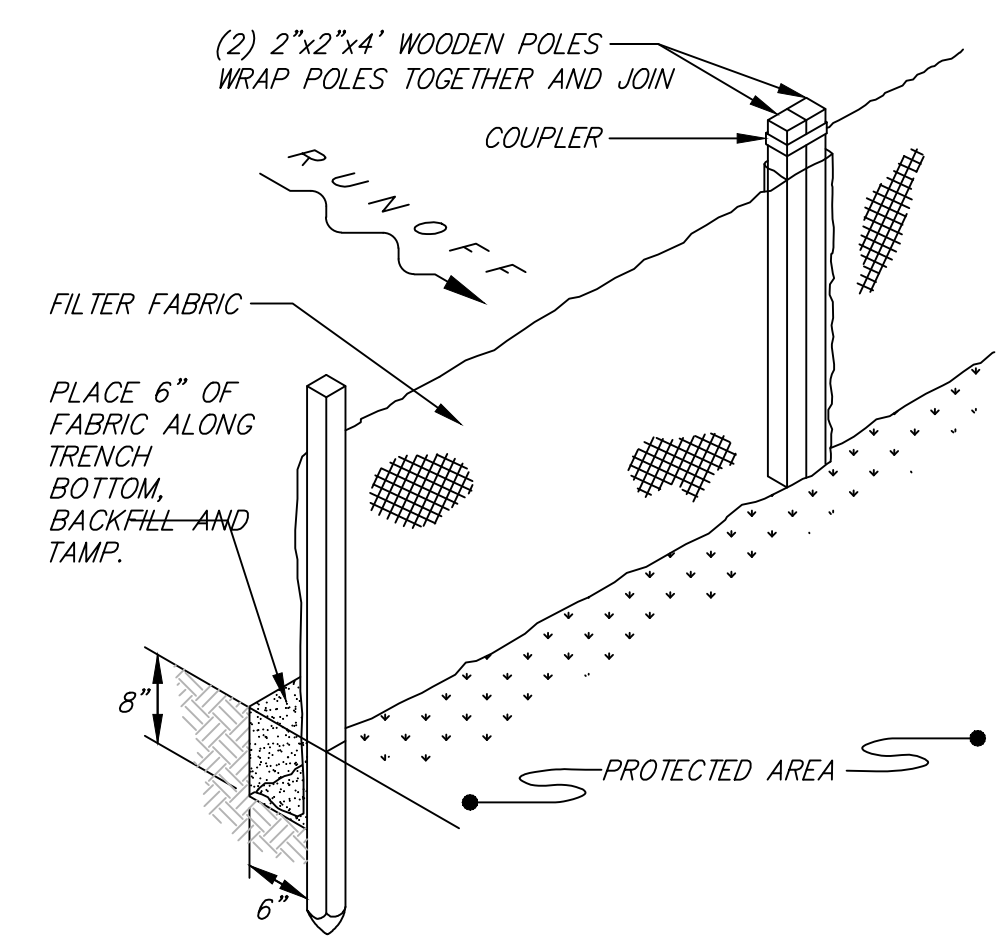
SEGMENT	DIA. (IN.)	MATERIAL [4]	MIN. SLOPE (IN./FT.)
BUILDING TO SEPTIC TANK	4	PVC SCH 40, ASTM D1785	1/4
D-BOX TO SOIL ABSORPTION AREA	4	PVC SCH 40, ASTM D1785	1/8 [2]
SOIL ABSORPTION AREA	4	PVC PERFORATED [3] [6], SCH 40, 1/16 ASTM D1785 (FOR GRAVITY SYSTEMS ONLY)	

- ALL PIPE SHALL BE PROPERLY BEDDED, HAUNCHED, BACKFILLED. ALL JOINTS SHALL BE WATER-TIGHT.
- PIPE SHALL BE LAID LEVEL, FIRST 2 FEET DOWNSTREAM FROM DISTRIBUTION BOX.
- PERFORATIONS DOWN AT 5 AND 7 O'CLOCK (FOR GRAVITY SYSTEMS ONLY).
- UNLESS OTHERWISE SPECIFIED ON FLOW PROFILE.

**PIPE SPECIFICATIONS**



**SLURRY PIT**  
NOT TO SCALE



**SILT FENCE BARRIER**  
ISOMETRIC VIEW  
NOT TO SCALE

#18  
Chadwick Farm  
Road

Boxford, Massachusetts

PREPARED FOR:  
**Charles W. Cochrane**  
220 Ballardvale Street  
Wilmington, Massachusetts 01887

**HANCOCK ASSOCIATES**

Civil Engineers  
Land Surveyors  
Environmental Consultants

185 CENTRE STREET, DANVERS, MA 01923  
WWW.HANCOCKASSOCIATES.COM



NO.	BY	APP.	DATE	ISSUE/REVISION	DESCRIPTION

DATE: 09/28/22 DESIGN BY: MJS  
SCALE: AS SHOWN DRAWN BY: MJS  
CHECK BY: CW

**DETAIL AND NOTES**

DWG: 25409sds.dwg  
LAYOUT: DET  
SHEET: 2 OF 2  
JOB NO.: 25409