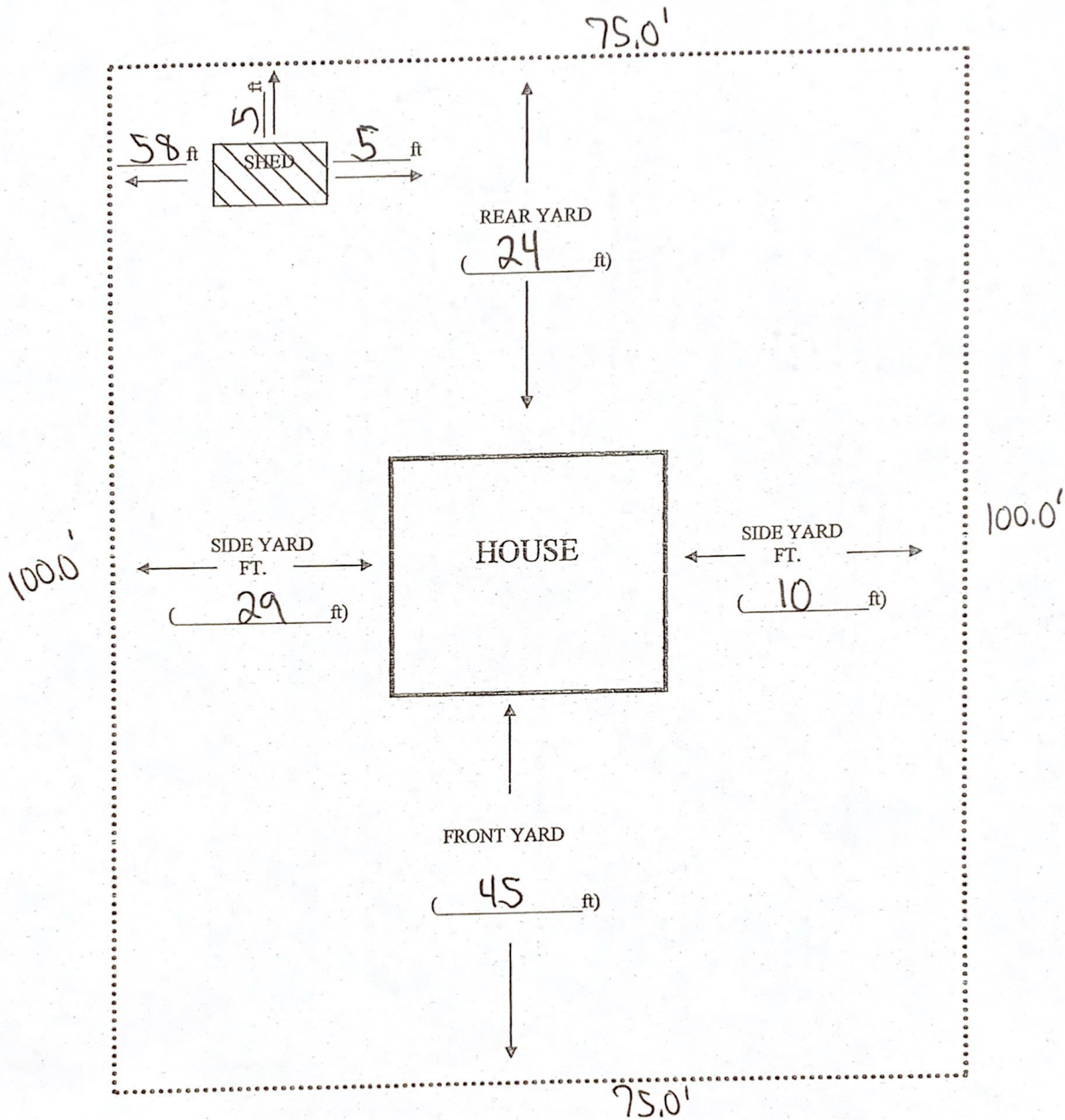


PLOT # 42 LOT # 069-70



2 Alcobia Drive Fairhaven MA 02719
(Address of Property)

Exhibit I



1 ALCOBIA DRIVE

2 ALCOBIA DRIVE

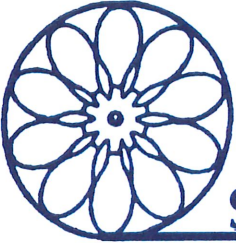
18 GOULART
MEMORIAL
DRIVE

Alcobia Drive

Goulart Memorial Drive

PH 94

GOULART
MEMORIAL
DRIVE



March 4, 2020 (**revised March 17, 2020**, revised March 30, 2020)

Mr. Jay Simmons, Chairman
Commissioners
Fairhaven Conservation Commission
Town Hall
40 Center Street
Fairhaven, MA 02719

RE: Letter of Findings, Site Assessment, 44 Torrington Road, Fairhaven, Mr. Jack Fournier, Wetland Violation/Enforcement Order, Map 29B, Parcel 246

Dear Mr. Simmons & Commissioners:

On February 18, 2020, Sabatia, Inc. conducted a site assessment with Ms. Whitney McClees (Conservation Agent) and Mr. Peter Therrien, Project Engineer (Field Engineering Co. Inc.) of unpermitted work at 44 Torrington Road. The purpose of the site assessment was to evaluate the extent of the unpermitted work subject to the jurisdiction of MGL Chapter 131, section 40 (The Massachusetts Wetlands Protection Act) and its regulations at 310 CMR 10.00 et seq. and the Town of Fairhaven Wetlands Protection Bylaw (Chapter 192) and to develop a Wetland Restoration Plan (WRP) for the impacted **wetland** area.

1.0 Wetland Resource Areas:

The site assessment revealed that a bordering vegetated wetland (BVW-310 CMR 10.55)/wooded swamp extends landward and covers a portion of 44 Torrington Road. Seaward and off-site are a mapped freshwater marsh (310 CMR 10.55) which borders a barrier beach (310 CMR 10.29). Only a portion of the wooded swamp was impacted from the unpermitted work. The area is likely also land subject to coastal storm flowage {310 CMR 10.02 (1d)}/coastal flood zone.

2.0 Plan of Record (POR):

The original Plan of Record (POR) entitled "*Stonewall Relocation Plan, Lot 246-270 Map 29B, Waybridge Road, Fairhaven, MA prepared for Jack & Lorraine Fournier*", dated September 2, 1997, with a scale of 1" = 30', was prepared by N. Douglas Schneider & Associates. This POR depicts a delineated wetland boundary on the parcel wetland flags (WF-1 to WF-7 just below the proposed "relocated stonewall".

The new Plan of Record (nPOR) is titled “*Site Plan, Proposed Wetland Restoration, Jack Fournier, 44 Torrington Road, Fairhaven, Massachusetts*”, dated 3/7/2020 (**revised 3/17/2020 and 3/30/2020**) and has a scale of 1” = 10’. This plan depicts the 1997 “wetland boundary”, WF-1 to WF-7, and the area of the unpermitted work labelled as “area of tree cutting” and calculated to be approximately 1,800 SF. This nPOR was prepared in response to the Enforcement Order (EO 023-010) issued in late 2019 or early 2020. The violation was first notice by the FCC on October 8, 2019. The EO requires submittal of a Wetland Restoration Plan by March 9, 2020. **NOTE: the revised plan also delimits the extent of the fill. NOTE: the 3/30/2020 revised plan indicates the planting of two trees & existing stumps to remain @ 7 Waybridge Road.**

3.0 Unauthorized Cutting of Trees/Shrubs as addressed in the Enforcement Order:

The site assessment (2-18-2020) revealed that 21 trees had been cut within the “area of tree cutting” as noted on the nPOR prepared by Field Engineering Co. Inc. These trees ranged in the 9”-20” diameter at cut height (near the ground). Most of the cut trees were black gum tupelo (*Nyssa sylvatica*), several red maples (*Acer rubrum*), several white oaks (*Quercus alba*) and 1 red oak (*Quercus rubra*). Understory shrub vegetation was NOT cut. No tree stumps have been “pulled” and thus minimal disturbance to the soil surface has occurred.

This violation did not include the placement of new fill and/or in any excavation of the BVW or buffer zone (1800 SF).

4.0 Wetland Restoration Plan (WRP):

4.1 Tree and shrub replacements:

Based on the guidance on plant spacing in the *Massachusetts Inland Wetland Replication Guidelines*, DEP 2002, an area of 1800 SF could theoretically accommodate 18 tree saplings planted at 10’ on center (o.c.) or 8 tree saplings planted at 15’ o.c. If the 21 cut tree stumps are left in the ground the actual spacing will be unable to follow the DEP recommendation of 10’-15’ o.c. Field Engineering Co. Inc. has depicted on the nPOR proposed locations of tree saplings. The actual placement of the tree saplings will need to be discussed further with the FCC. It is planned to plant 21 tree saplings as noted on the nPOR. The nPOR also depicts the stump locations of the 21 trees that were cut. **Additionally, two (2) trees will be planted @ 7 Waybridge Road (directly across the street from the wetland restoration area). The two cut stumps will not be removed from the site.**

It is important for the FCC to realize that the replacement tree species will be saplings & not mature trees. These tree saplings would have a height of 8’ to 10’ (**3-3.5” caliper/root ball size 34”/weight 800 lbs.**). Mature tree species would not survive the stress of transplantation especially in a coastal setting with the added stress from salt spray. **NOTE: a 6” caliper tree would have a root ball of 66-72”/weight of 5000-6000 lbs. and a height of 18-20’. This would most certainly result in plant failure. I DO NOT recommend this at all.**

Although the shrub layer was minimally impacted from the tree cutting, the 1800 SF impact area could accommodate some shrubs @ 8-10’ o.c. However, the fact that cut tree stumps will not be removed would limit the actual number of shrubs.

4.2 Suitable Tree Saplings:

Tree saplings should be planted according to the nPOR prepared by Field Engineering Co. Inc. and/or at the discretion of the FCC. Each tree should be no smaller than 8'-10' in height and approximately **3-3.5" caliper (root ball 32-36" and a weight of 850 lbs.)**. The number of each sapling species proposed to be planted is shown below.

Common Name	Scientific Name	USFWS Wetland Indicator Status
7-Red maple	<i>Acer rubrum</i>	FAC
7-Black gum tupelo	<i>Nyssa sylvatica</i>	FAC
3-Yellow birch	<i>Betula alleghaniensis</i>	FAC
4-Eastern Hemlock	<i>Tsuga canadensis</i>	FACU

4.3 Suitable Woody Shrubs:

Woody shrubs should be planted according to the nPOR prepared by Field Engineering Co. Inc. and/or at the discretion of the FCC. Each shrub should be no smaller than 3-4' in height and **planted in clusters of 3-5 shrubs**. A total of 48 shrub species is proposed to be planted and the number of each species is depicted below.

Common Name	Scientific Name	USFWS Wetland Indicator Status
12-High bush blueberry	<i>Vaccinium corymbosum</i>	FACW
13-Sweet pepperbush	<i>Clethra alnifolia</i>	FAC
12-Inkberry	<i>Ilex glabra</i>	FACW (FAC)
11-Bayberry	<i>Morella caroliniensis</i>	FAC

4.4 Existing Conditions within the 1800 SF Impact Area:

Despite the 1997 wetland delineation identifying the area seaward of the “relocated wall” as wetland (WF-1 to WF-7), some of this area within 20-30’ seaward of the wall is not wetland. This is supported by the DEP Wetland Change Map that depicts some of this area landward of the mapped wooded swamp (WS1) as upland and the on-line Soil Map which indicates this area to be underlain by an upland soil (mapped 305B).

During the site assessment (2/18/20), I observed that this upper area 20-30’ seaward of the stone wall appeared to be old fill material. As one moves seaward (about 30-40’) from the wall the fill tapers to the natural wetland grade. At this point the vegetative community is predominantly wetland with wetland ferns {sensitive fern (*Onoclea sensibilis*) & cinnamon fern (*Osmunda cinnamomea*)} and soft rush (*Juncus effusus*) occupying the ground layer. These are absent from the ground layer in the area 20-30’ seaward of the stone wall. **The removal of the old fill 20-30’ seaward of the stone wall will occur as recommended in the 3/13/2020 email from Conservation Agent McClees. This will occur in the spring/early summer of 2020.**

While most of the cut trees were wetland species (black gum tupelo & red maple), the understory (shrubs/vines) in this area (1800 SF altered area) are primarily invasive and non-native species: bittersweet vine (*Celastrus scandens*), multiflora rose (*Rosa multiflora*), Japanese knotweed (*Polygonum cuspidatum*) and common privet (*Ligustrum vulgare*). There are very few wetland shrub species in the area 20-30’ seaward of the stone wall. I would highly recommend the removal of most of the invasive species prior to implementation of the Wetland Restoration Plan (WRP) and a backhoe would be recommended. This will occur in the spring/early summer of 2020.

The tree stumps should remain to lessen soil disturbance and to allow production of manageable stump sprouts, which can be managed during the monitoring period by selecting 1-2 “terminal buds” per stump and pruning out the rest. This would likely ensure that most of the 21 tree species that were cut will regenerate functioning healthy saplings and eventually trees.

Prior to removing the invasive species, all cut trees, branches and other brush/slash should be removed from the altered area (1800 SF). The use of heavy equipment in the filled area will not further destroy or disturb the wetland but would facilitate cut tree/branch removal and allow this project to move forward faster.

The removal of the cut trees/brush should occur in ASAP after FCC approval of the Wetland Restoration Plan & Timeline. Removal of invasive species and the fill will occur in the spring/early summer. The planting of the shrubs/tree sapling should occur in September 2020 (third week).

One other recommendation is that the WRA will need to be frequently watered during the fall months of 2020 and summer & fall months of 2021-2025. A sprinkler system should be installed just seaward of the stone wall to permit timed watering (see revised plan dated 3-30-2020).

4.5 Monitoring and Compliance:

The Wetland Restoration Plan (WRP) will need to comply with 310 CMR 10.55 (4)(b) (1-6) which necessitates monitoring over at least a two-year period to achieve at least a 75% surface replacement within two growing seasons. However, the FCC has requested a 5-Year Monitoring due to the presence of the invasive species. Assuming the WRP planting is implemented on or before September 30, 2020 it shall be monitored through September 20, 2025 prior to requesting the FCC to rule on compliance.

Monitoring should include written correspondence to the FCC indicating the progress of the WRP. This should be done twice per year, late spring & late fall. Invasive species should be pruned to the ground during each monitoring visit. Pictures should be submitted with the written documentation.

4.6 Wetland Restoration Area Monitoring Implementation Schedule:

March 2020	Submit the initial Wetland Restoration Plan (WRP) to the Fairhaven Conservation Commission (FCC) for its review on March 9, 2020. Attend the FCC public meeting on March 23, 2020 to present the WRP and to answer questions from commissioners/public. (DONE)
April 2020 to early/mid-July	All cut trees/brush/slash to be removed from the altered 1800 SF area followed by the removal of the invasive species. Area to be inspected by the wetland scientist. FCC and/or its Conservation Agent inspects the area prior to implementation of the planting plan. Invasive species to be removed. All FILL within 20-30 seaward of the stone wall to be removed.
September 2020 and mid November 2020	The planting within the altered 1800 SF area (WRA) should be completed no later than September 30, 2020 , earlier if possible. The planted WRA will be inspected by the wetland scientist & the Conservation Agent after the plantings have been installed. The WRA will have a final 2020 inspection in mid-November.
June 2021	Prior to June 30, 2021 the wetland scientist will conduct a site assessment and provide the FCC with an Email report. Any plants dead due to winter kill will be replaced.

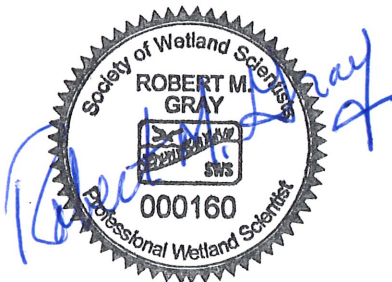
Fall 2021 (End of Year One Monitoring)	On or about October 31, 2021, the wetland scientist will conduct a fall assessment. Any plants that have not survived the transplantation process and/or the summer heat stress will need to be replaced at this time. A Letter of Findings with pictures will be submitted to the FCC.
Spring 2022	Wetland scientist conducts the 2022 spring assessment on or about April 30, 2022. Plants that have not survived must be replanted at this time. A Letter of Findings with pictures will be submitted to the FCC.
Fall 2022 (End of Year Two Monitoring)	Wetland scientist conducts the 2022 fall assessment on or about October 31, 2022. Plants that have not survived must be replanted at this time. A Letter of Findings with pictures will be submitted to the FCC.
Spring 2023 to Fall 2025 (End of the 5 Year Monitoring)	Wetland scientist conducts the spring assessment on or about April 30 and the fall assessment on or about October 31 (from Spring 2023 through Fall 2025). A Letter of Findings with pictures will be submitted to the FCC in the spring & fall 2023-2025. At this time, the property owner will request the FCC to determine if compliance with 310 CMR 10.55 (4)(b) (1, 2 & 6) has been complied with. If the FCC so determines, then the monitoring will be terminated.

5.0 Final Comments:

Mr. and Mrs. Fournier pledge to work with the FCC to remediate the problems identified in the Enforcement Order (EO). They intend to comply fully with the EO. Please consider this a fluid “working document” for discussion at a future FCC public meeting. Also, please note that these timelines could be affected by the Covid19 pandemic and further adjustments may need to occur.

I am available to conduct an on-site with members of the Commission and/or you. Please feel free to contact me at 1-508-563-5349 or by email at sabatia@comcast.net.

**Sincerely yours,
Robert M. Gray, PWS, RS, SE
Professional Wetland Scientist, #160
Registered Sanitarian (RT), #669
DEP Certified Soil Evaluator (RT), #936**



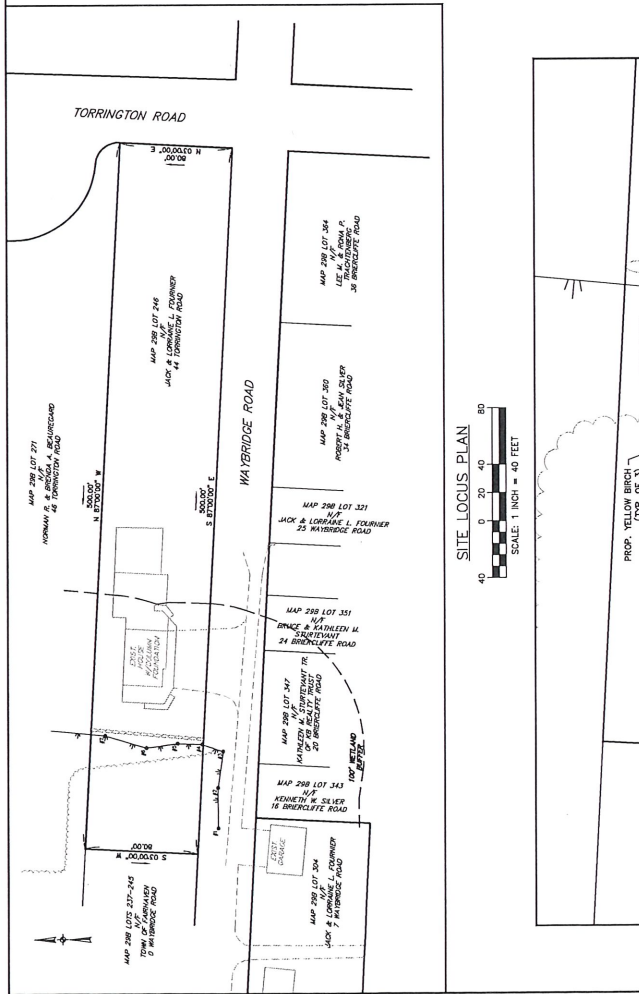
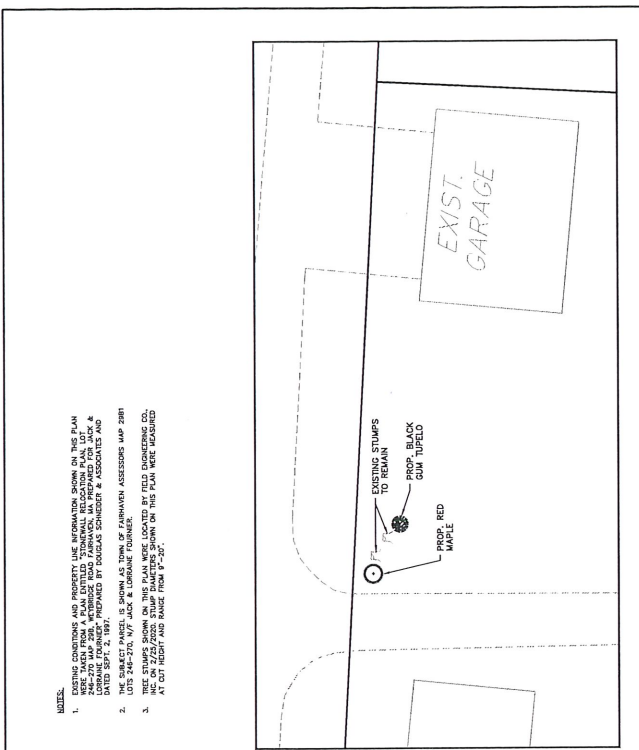
NO.	REVISION	DATE
1	ISSUED FOR PERMIT	3/7/2020
2	REVISED FOR COMMENTS	
3	REVISED FOR COMMENTS	
4	REVISED FOR COMMENTS	
5	REVISED FOR COMMENTS	
6	REVISED FOR COMMENTS	
7	REVISED FOR COMMENTS	
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20	REVISED FOR COMMENTS	

Drawn By	Designed By	Checked By
ENR/SJG	PEST	RMP
Revised For	AS NOTED	
Date	3/7/2020	

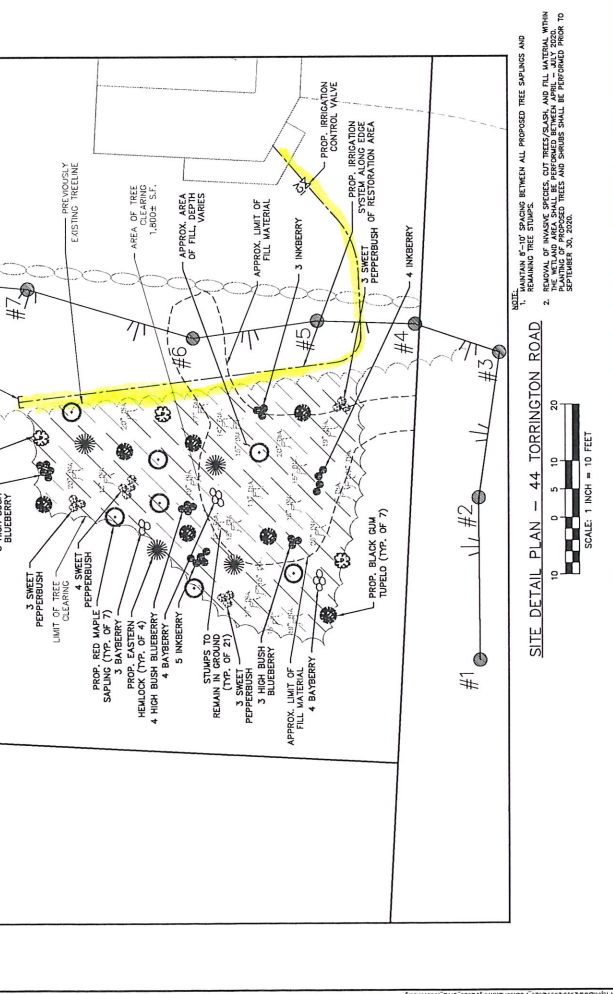
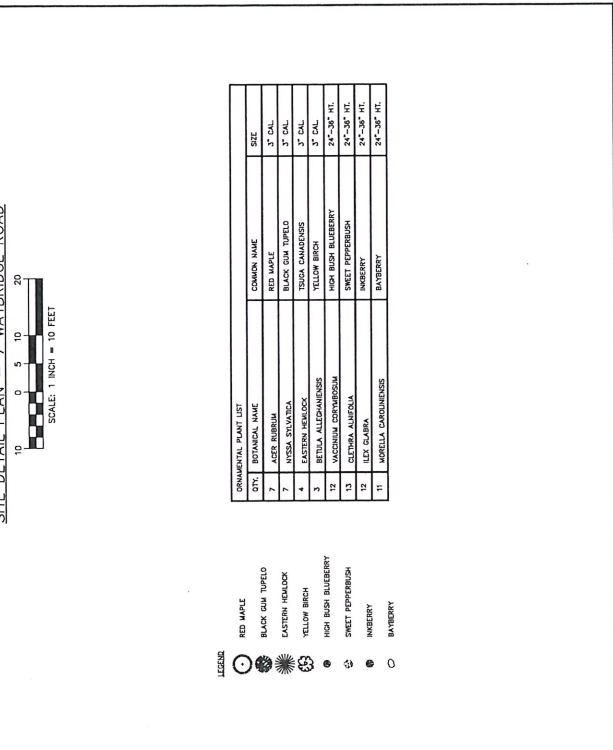
ENFORCEMENT ORDER

PROPOSED WETLAND RESTORATION
 JACK FOUNNER
 44 TORRINGTON ROAD
 FAIRHAVEN, MASSACHUSETTS

Drawn By: **SITE PLAN**
 Project No.: 2229
 Sheet: 1 OF 1
SP-1



- INDEX:**
1. THESE CONSENTS AND PROVISIONS ARE SUPERSEDED BY THE PLAN HEREIN AND SHALL BE VOID AND OF NO EFFECT TO THE EXTENT OF ANY CONFLICT THEREWITH.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES AS REQUIRED BY THE PERMITTING AGENCIES.
 3. THE STUMPS SHOWN ON THIS PLAN WERE LOCATED BY FIELD DORNINGER CO. ON 3/7/2020. THE STUMPS WERE LOCATED ON THIS PLAN HEREIN LOCATED AT AN ELEVATION AND RANGE FROM 8'-30".



- LEGEND:**
- RED MAPLE
 - BLACK GUM TUPELO
 - EASTERN HICKOCK
 - YONKERS STARWART
 - HIGH BUSH BLUEBERRY
 - SWEET PEPPERBUSH
 - INBERRY
 - BANYERRY

NOTE:

1. REMOVAL OF ALL STUMPS BETWEEN ALL PROPOSED TREE SPACING AND REMAINING TREE STUMPS.
2. REMOVAL OF INVASIVE SPECIES, CUT TREE, BRANCH, AND FILL MATERIAL WITHIN THE WETLAND RESTORATION AREA SHALL BE PERFORMED PRIOR TO PERFORMING THE RESTORATION WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES AS REQUIRED BY THE PERMITTING AGENCIES.

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You are here: [Simple Key](#) > [Woody plants](#) > [Needle-leaved woody plants](#) > *Tsuga canadensis*

New England Distribution

Adapted from [BONAP](#) data

Native

■ county documented



[about the labels on this map](#)

Found this plant? Take a photo and [post a sighting](#).

North America Distribution

Adapted from [BONAP](#) data



Native to North America?
 enlarge
 Yes

Sometimes Confused With

***Abies balsamea*:**

winter buds resinous, the individual scales concealed by resin, bark with resin blisters, and seed cones erect (vs. *T. canadensis*, with winter buds not resinous, the individual scales visible, bark without resin blisters, and seed cones drooping).

Synonyms

Pinus canadensis L.

Family

[Pinaceae](#)

Genus

[Tsuga](#)

Tsuga canadensis (L.) Carr.

eastern hemlock



Copyright: various copyright holders. To reuse an image, please click it to see who you will need to contact.

Facts About

The mighty spires of eastern hemlock can tower over other trees, especially in old-growth forests and moist, cool ravines where it grows best and can live up to 800 years. Eastern hemlock produces tannins, which dye nearby streams a deep reddish-brown; these astringent chemicals were used for tanning leather in the 1800s. As a dominant and widespread tree, it provides nesting habitat for many species of birds. The sheltering, evergreen boughs are favored by deer for bedding grounds. Eastern hemlock is increasingly under threat from the hemlock woolly adelgid (*Adelges tsugae*), a tiny white sucking insect that can defoliate whole stands.

Habitat

Anthropogenic (man-made or disturbed habitats), forest edges, forests, talus and rocky slopes, wetland margins (edges of wetlands)

Characteristics

Habitat	terrestrial, wetlands
New England state	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Growth form	the plant is a tree
Leaf form	<ul style="list-style-type: none"> the leaves are needle-like the leaves are scale-like
Leaf cross-section	the needle-like leaves are flattened (can't be rolled between the fingers)
Leaf arrangement	there is one needle-like leaf per node
Seed cone form	the seed cone is longer than wide, with woody scales attached at the base
Leaf clustering	the needle-like leaves are single, with one per node
Seed cone shape	the seed cone is ovoid (egg-shaped)
Leaves overlapping	the needle-like leaves are separate and do not hide the twig surface

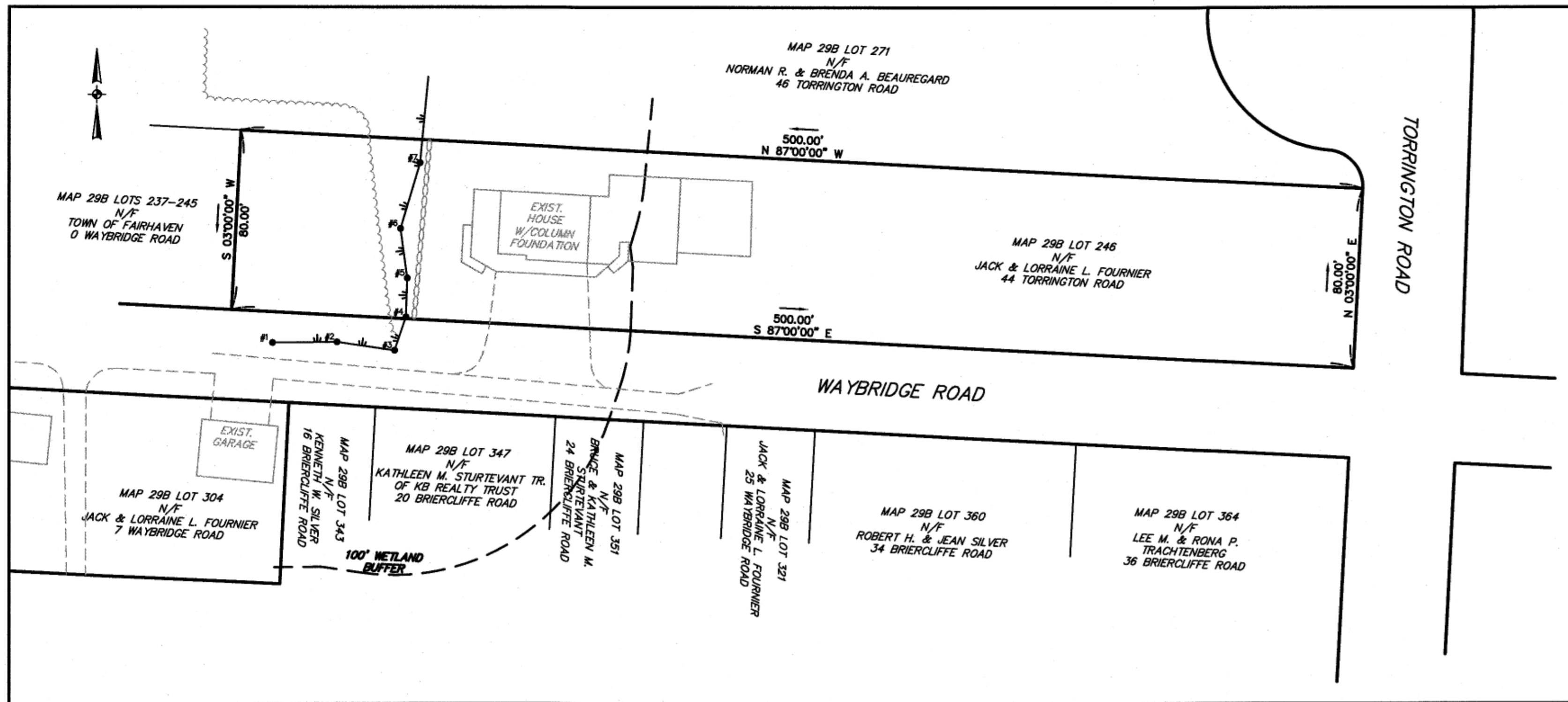
[Show All Characteristics](#)

Wetland Status

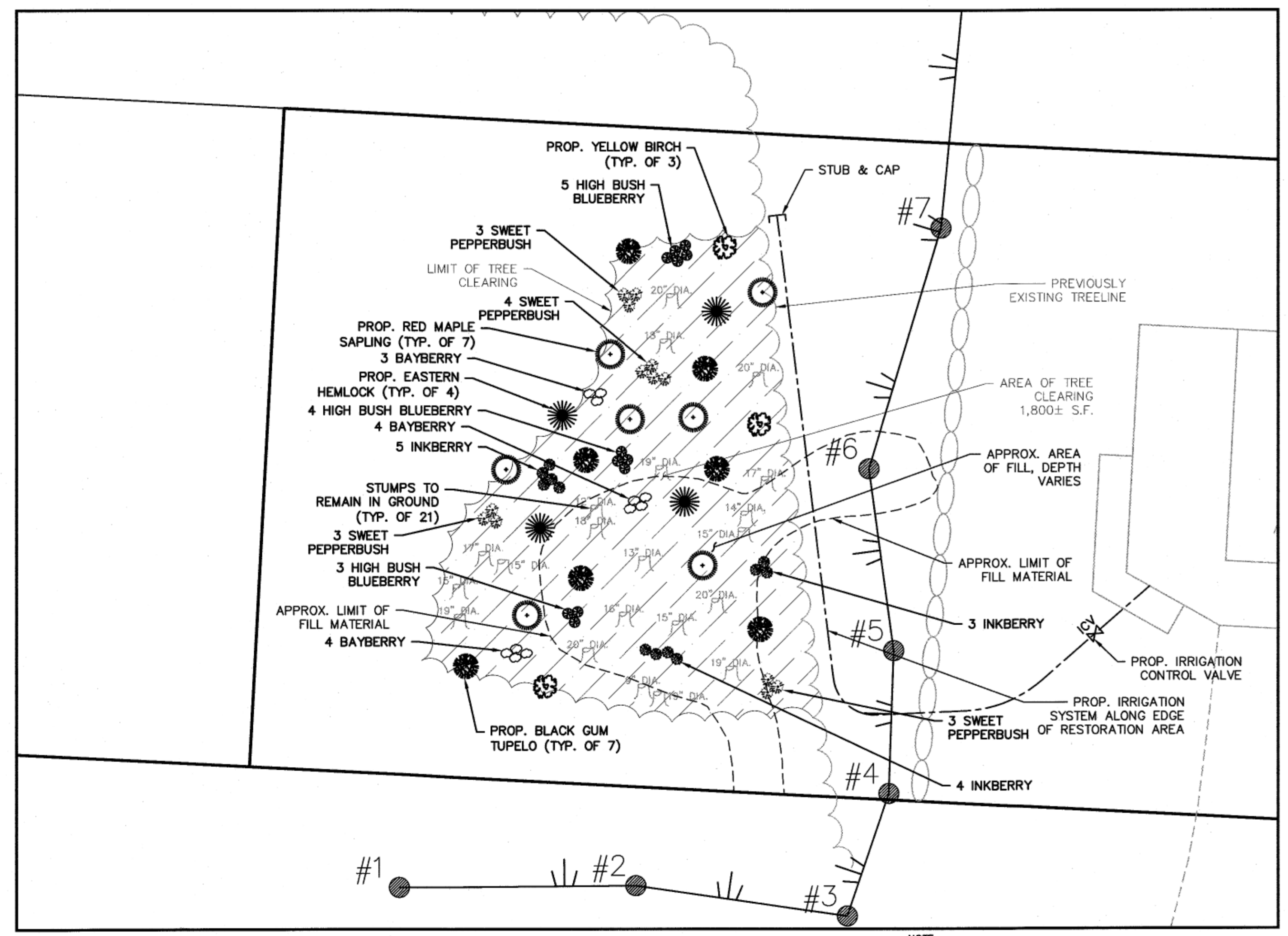
Usually occurs in non-wetlands, but occasionally in wetlands. (Wetland indicator code: FACU)

New England Distribution and Conservation Status

Distribution



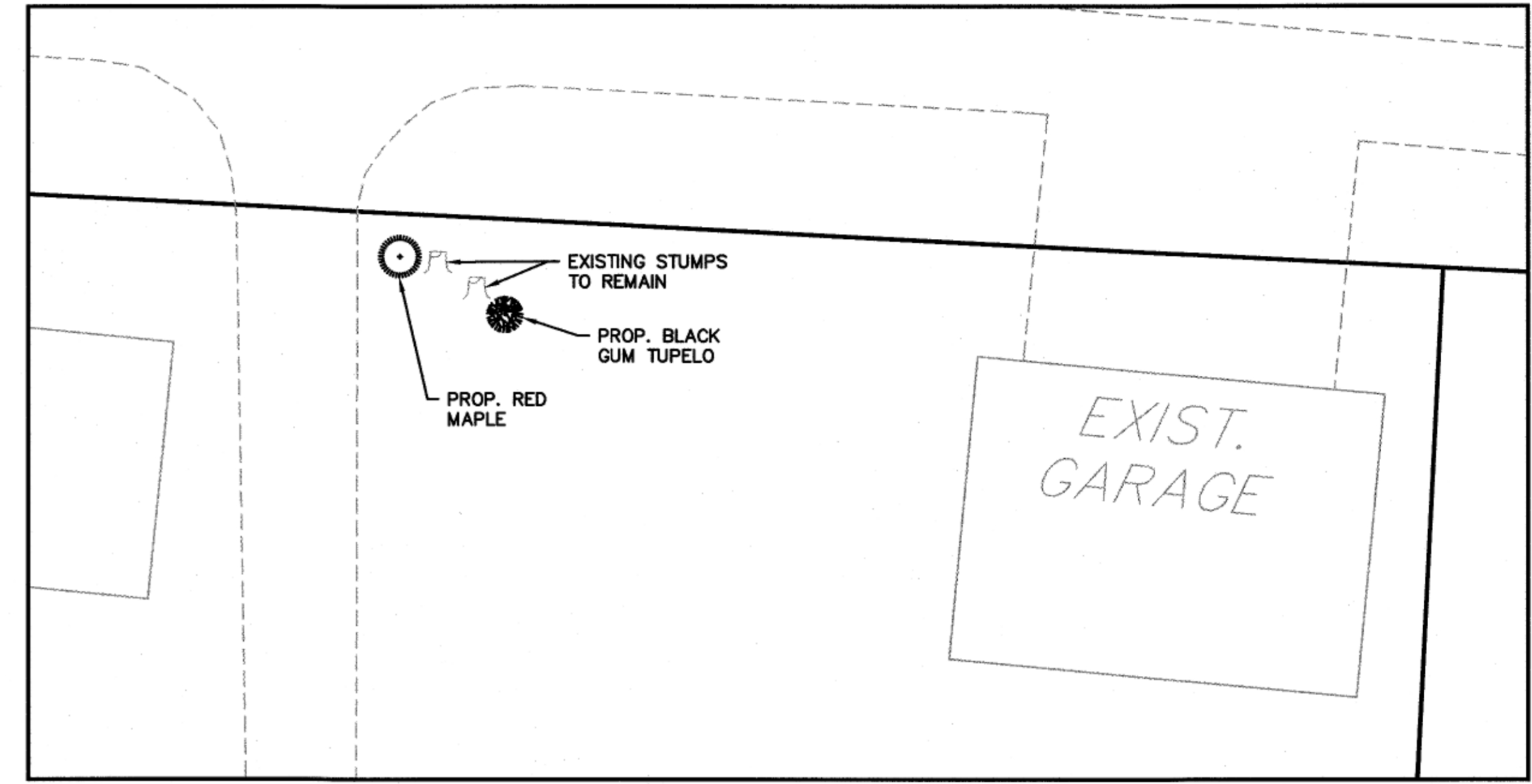
SITE LOCUS PLAN
 40 0 20 40 80
 SCALE: 1 INCH = 40 FEET



SITE DETAIL PLAN - 44 TORRINGTON ROAD
 10 0 5 10 20
 SCALE: 1 INCH = 10 FEET

NOTE:
 1. MAINTAIN 8'-10' SPACING BETWEEN ALL PROPOSED TREE SAPLINGS AND REMAINING TREE STUMPS.
 2. REMOVAL OF INVASIVE SPECIES, CUT TREES/SLASH, AND FILL MATERIAL WITHIN THE WETLAND AREA SHALL BE PERFORMED BETWEEN APRIL - JULY 2020. PLANTING OF PROPOSED TREES AND SHRUBS SHALL BE PERFORMED PRIOR TO SEPTEMBER 30, 2020.

NOTES:
 1. EXISTING CONDITIONS AND PROPERTY LINE INFORMATION SHOWN ON THIS PLAN WERE TAKEN FROM A PLAN ENTITLED "STONEWALL RELOCATION PLAN, LOT 246-270 MAP 29B, WEYBRIDGE ROAD FAIRHAVEN, MA PREPARED FOR JACK & LORRAINE FOURNIER" PREPARED BY DOUGLAS SCHNEIDER & ASSOCIATES AND DATED SEPT. 2, 1997.
 2. THE SUBJECT PARCEL IS SHOWN AS TOWN OF FAIRHAVEN ASSESSORS MAP 29B1 LOTS 246-270, N/F JACK & LORRAINE FOURNIER.
 3. TREE STUMPS SHOWN ON THIS PLAN WERE LOCATED BY FIELD ENGINEERING CO., INC. ON 2/25/2020. STUMP DIAMETERS SHOWN ON THIS PLAN WERE MEASURED AT CUT HEIGHT AND RANGE FROM 9"-20".



SITE DETAIL PLAN - 7 WAYBRIDGE ROAD
 10 0 5 10 20
 SCALE: 1 INCH = 10 FEET

- LEGEND**
- RED MAPLE
 - BLACK GUM TUPELO
 - EASTERN HEMLOCK
 - YELLOW BIRCH
 - HIGH BUSH BLUEBERRY
 - SWEET PEPPERBUSH
 - INKBERRY
 - BAYBERRY

QTY.	BOTANICAL NAME	COMMON NAME	SIZE
7	ACER RUBRUM	RED MAPLE	3" CAL.
7	NYSSA SYLVATICA	BLACK GUM TUPELO	3" CAL.
4	EASTERN HEMLOCK	TSUGA CANADENSIS	3" CAL.
3	BETULA ALLEGANIENSIS	YELLOW BIRCH	3" CAL.
12	VACCINIUM CORYMBOSUM	HIGH BUSH BLUEBERRY	24"-36" HT.
13	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	24"-36" HT.
12	ILEX GLABRA	INKBERRY	24"-36" HT.
11	MORELLA CAROLINIENSIS	BAYBERRY	24"-36" HT.

FIELD ENGINEERING CO., INC.
 CONSULTING ENGINEERS
 11D INDUSTRIAL DRIVE
 P.O. BOX 1178
 MATTAPOISETT, MA 02739
 TEL: (508) 758-2749
 FAX: (508) 758-2849

Revisions			
No.	Description	Date	App'd.
2	REV. PER CONCOM REVIEW	3/30/20	RMF
1	REV. PER CONCOM REVIEW	3/17/20	RMF

Date: 3/7/2020
 Scale: AS NOTED
 Drawn By: RMS/PGT
 Designed By: PGT
 Checked By: RMF
 Issued For:

ENFORCEMENT ORDER



PROPOSED WETLAND RESTORATION
JACK FOURNIER
 44 TORRINGTON ROAD
 FAIRHAVEN, MASSACHUSETTS

Drawing Title
SITE PLAN
 Project No. 2329 Sheet 1 OF 1

SP-1

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