LEC WETLANDS WILDLIFE WATERWAYS

Abbreviated Notice of Resource Area Delineation

August 24, 2023

Subject Property
Junction Street
Assessor's Map 20; Lots 5, 9, 10 & 11
Dover, Massachusetts

Applicant
Pulte Homes of New England, LLC
Essek Petrie, Contact
115 Flanders Road
Westborough, MA 01581

Owner
Frank N. Gobbi Revocable Trust
Frank N. Gobbi Jr., Trustee
P. O. Box 220
Westwood, MA 02090

Prepared by
LEC Environmental Consultants, Inc.
100 Grove Street, Suite 310
Worcester, MA 01605
508-753-3077

www.lecenvironmental.com

LEC WETLANDS WILDLIFE WATERWAYS

August 24, 2023

Electronic Delivery and FedEx (lhagerty@doverma.gov)

Dover Conservation Commission
Dover Town House
5 Springdale Avenue
P. O. Box 250
Dover, MA 02030

Re: Abbreviated Notice of Resource Area Delineation [LEC File #: BOE 23-321.04]
Junction Street
Assessor's Map 20; Lots 5, 9, 10 & 11
Dover, Massachusetts

Dear Members of the Conservation Commission:

On behalf of the Applicant, Pulte Homes of New England, LLC, (Essek Petrie, Contact), LEC Environmental Consultants, Inc., (LEC) is filing the enclosed *Abbreviated Notice of Resource Area Delineation* (ANRAD) with the Dover Conservation Commission to confirm the boundaries of jurisdictional Wetland Resource Areas associated with properties along Junction Street in Dover, Massachusetts. The ANRAD Application and associated wetland boundary determinations have been completed in accordance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, § 40) and its implementing *Regulations* (310 CMR 10.00); and the *Dover Wetlands Protection Bylaw* (Chapter 181) and the *Rules and Regulations for the Dover Wetlands Protection Bylaw* (Chapter 263). MassDEP Field Delineation Forms are included in Appendix B. An *Abbreviated Notice of Resource Area Delineation Plan* dated August 17, 2023, and prepared by Control Point Associates, Inc., is included as Appendix C, and depicts the delineated boundaries of Bordering Vegetated Wetlands (BVW).

Two checks made payable to the Town of Dover in the amounts of One Thousand, Twelve Dollars and Fifty Cents ($1,012.50), and Two Thousand Dollars ($2,000.00) for the Town portion of the *Act* ANRAD filing fee and *Bylaw* ANRAD filing fee, respectively, are enclosed. Also enclosed is a check payable to the Town of Dover in the amount of One Hundred Dollars ($100.00) for the legal advertisement fee. Payment to the Commonwealth of Massachusetts in the amount of Nine Hundred, Eighty-Seven Dollars and Fifty Cents ($987.50) has been processed via eDEP.

Thank you for your consideration of this application. We look forward to meeting with you at the September 13, 2023, remote Public Hearing to discuss the ANRAD. If you have any questions or require additional information, please do not hesitate to contact me in our Worcester Office at 508-753-3077 or at rkirby@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Richard A. Kirby
Senior Wetland Scientist

Nicole M. Ferrara
Wetland Specialist

cc: DEP, Northeast Region
Pulte Homes of New England, LLC
Frank N. Gobbi Revocable Trust
Bohler

Abbreviated Notice of Resource Area Delineation

ANRAD Application Report

Appendices

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4A – Abbreviated Notice of Resource Area Delineation

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dover
City/Town

A. General Information

1. Project Location (**Note:** electronic filers will click on button for GIS locator):

Junction Street
a. Street Address

Dover
b. City/Town

02030
c. Zip Code

Latitude and Longitude:

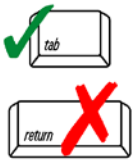
42.21686
d. Latitude

-71.32490
e. Longitude

Map 20
f. Assessors Map/Plat Number

Lots 5, 9, 10 & 11
g. Parcel /Lot Number

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



2. Applicant:

Essek
a. First Name

Petrie
b. Last Name

Pulte Homes of New England, LLC
c. Organization

115 Flanders Road
d. Mailing Address

Westborough
e. City/Town

MA
f. State

01581
g. Zip Code

508-621-2402
h. Phone Number

n/a
i. Fax Number

essek.petrie@pulte.com
j. Email Address

3. Property owner (if different from applicant):

☐ Check if more than one owner (attach additional sheet with names and contact information)

Frank N.
a. First Name

Gobbi, Jr
b. Last Name

Trustee of the Frank N. Gobbi Revocable Trust
c. Organization

P.O. Box 220
d. Mailing Address

Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

Westwood
e. City/Town

MA
f. State

02090
g. Zip Code

617-899-8483
h. Phone Number

n/a
i. Fax Number

frankgobbi@aol.com
j. Email Address

4. Representative (if any):

Richard
a. Contact Person First Name

Kirby
b. Contact Person Last Name

LEC Environmental Consultants, inc.
c. Organization

100 Grove Street, Suite 310
d. Mailing Address

Worcester
e. City/Town

MA
f. State

01880
g. Zip Code

508-753-3077
h. Phone Number

508-753-3177
i. Fax Number

rkirby@lecenvironmental.com
j. Email Address

Fees will be calculated for online users.

5. Total WPA Fee Paid (from attached ANRAD Wetland Fee Transmittal Form):

$2,000.00
a. Total Fee Paid

$987.50
b. State Fee Paid

$1,012.50
c. City/Town Fee Paid

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4A – Abbreviated Notice of Resource Area Delineation

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dover
City/Town

B. Area(s) Delineated

1. Bordering Vegetated Wetland (BVW) — 3,315± Linear Feet of Boundary Delineated

2. Check all methods used to delineate the Bordering Vegetated Wetland (BVW) boundary:

   a. ☒ MassDEP BVW Field Data Form (attached)

   b. ☐ Other Methods for Determining the BVW boundary (attach documentation):

      1. ☐ 50% or more wetland indicator plants
      2. ☐ Saturated/inundated conditions exist
      3. ☐ Groundwater indicators
      4. ☐ Direct observation
      5. ☐ Hydric soil indicators
      6. ☐ Credible evidence of conditions prior to disturbance

3. Indicate any other resource area boundaries that are delineated:

N/A a. Resource Area	b. Linear Feet Delineated
c. Resource Area	d. Linear Feet Delineated

C. Additional Information

Applicants must include the following plans with this Abbreviated Notice of Resource Area Delineation. 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.

1. ☒ ANRAD (Delineation Plans only)
2. ☒ 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.)
3. ☒ Plans identifying the boundaries of the Bordering Vegetated Wetlands (BVW) (and/or other resource areas, if applicable).
4. ☒ List the titles and final revision dates for all plans and other materials submitted with this Abbreviated Notice of Resource Area Delineation.

D. Fees

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4A – Abbreviated Notice of Resource Area Delineation

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dover
City/Town

The fees for work proposed under each Abbreviated Notice of Resource Area Delineation must be calculated and submitted to the Conservation Commission and the Department (see Instructions and Wetland Fee Transmittal Form).

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 the attached Wetland Fee Transmittal Form) to confirm fee payment:

0081073366	8/17/2023
2. Municipal Check Number	3. Check date
Paid electronically via eDEP	Paid on 8/23/2024
4. State Check Number	5. Check date
Pulte Group	
6. Payor name on check: First Name	7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4A – Abbreviated Notice of Resource Area Delineation

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Dover
City/Town

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 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.

I hereby grant permission, to the Agent or member of the Conservation Commission and the Department of Environmental Protection, to enter and inspect the area subject to this Notice at reasonable hours to evaluate the wetland resource boundaries subject to this Notice, and to require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

I acknowledge that failure to comply with these certification requirements is grounds for the Conservation Commission or the Department to take enforcement action.

1. Signature of Applicant	2. Date 8/16/23
3. Signature of Property Owner (if different) Mark Mastroianni Duly Authorized	4. Date 8/23/2023
5. Signature of Representative (if any)	6. Date

For Conservation Commission:
Two copies of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; two copies of the ANRAD Wetland Fee Transmittal Form; and the city/town fee payment must be sent to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; one copy of the ANRAD Wetland Fee Transmittal Form; and a copy of the state fee payment must be sent to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery. (E-filers may submit these electronically.)

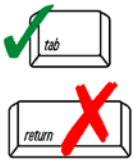
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

ANRAD Wetland Fee Transmittal Form

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

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

Junction Street	Dover
a. Street Address	b. City/Town
$987.50	payment via eDEP
c. Fee amount	d. Check number

2. Applicant:

Essek	Petrie	Pulte Homes of New England, LLC
a. First Name	b. Last Name	

115 Flanders Road
d. Mailing Address

Westborough	MA	01581
e. City/Town	f. State	g. Zip Code

508-621-2404
h. Phone Number

3. Property Owner (if different):

Frank N.	Gobbi Jr.	Trustee of the Frank N. Gobbi Revocable Trust
a. First Name	b. Last Name	

P.O. Box 220
d. Mailing Address

Westwood	MA	02090
e. City/Town	f. State	g. Zip Code

617-899-8483
h. Phone Number

B. Fees

The fee is calculated as follows for each Resource Area Delineation included in the ANRAD (check applicable project type). The maximum fee for each ANRAD, regardless of the number of Resource Area Delineations, is $200 activities associated with a single-family house and $2,000 for any other activity.

☐ **Online users:** check box if fee exempt.

Bordering Vegetated Wetland Delineation Fee:

1. ☐	single family house project	a. feet of BVW	x $2.00 =	b. Fee for BVW
2. ☒	all other projects	3,315± a. feet of BVW	$6,630.00 x $2.00 =	$2,000.00 b. Fee for BVW

Other Resource Area (e.g., bank, riverfront area, etc.):

3. ☐	single family house project	a. linear feet	x $2.00 =	b. Fee
4. ☐	all other projects	a. linear feet	x $2.00 =	b. Fee

Total Fee for all Resource Areas:	$2,000.00 Fee
State share of filing fee:	$987.50 5. 1/2 of total fee **less** $12.50
City/Town share of filing fee:	$1,012.50 6. 1/2 of total fee **plus** $12.50

C. Submittal Requirements

a.) Send a copy of this form, with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Abbreviated Notice of Resource Area Delineation; a **copy** of this form; and the city/town fee payment.

c.) **To DEP Regional Office**: Send one copy of the Abbreviated Notice of Resource Area Delineation (and any additional documentation required as part of a Simplified Review Buffer Zone Project); a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

DOVER CONSERVATION COMMISSION

Assessment of Filing Fees

Applicant Pulte Homes of New England, LLC Date 8/23/2023

Address 115 Flanders Road, Westborough, MA 01581

Project Location 0, 15, 17, and 19 Junction Street

(Please see pages 10 - 14 of Ch. 263, Rules and Regulations of the Dover Wetlands Protection Bylaw, posted on the dover website Conservation page at www.doverma.gov)

Application Fees

Payable To: TOWN OF DOVER

Filing Type - Abbreviated Notice of Resource Area Delineation $ 2,000.00

Legal Notice fee $ 100.00

TOTAL DUE FOR FILING $ 2,100.00

Rules:

1. Payable at time of application and are non-refundable.
2. To be calculated by the Conservation Commission per fee schedule.
3. To be in addition to state fees.
4. Town, County, State and Federal projects exempt from fees.
5. Failure to comply with the law after official notification may result in fees twice normal assessment.
6. Consultant's fees per Dover Wetlands Bylaw, are additional.

I have read and understand these rules and fees as they are written. I agree per Dover Wetlands Protection By-law, that if consultant work is deemed necessary by the Commission, I, the applicant am responsible for such fees up to a maximum of $5,000, payable upon receipt. Further, during the course of the operation, from time of filing until completion, members of the Commission shall be permitted to enter the property in the performance of their duties.

Applicant  Date 8/23/2023

LEC Environmental Consultants, Inc. (Representative)

AFFIDAVIT OF SERVICE

Under the Massachusetts Inland Wetlands Protection Act

I, Sharon A. Sullivan, hereby certify under the pains and penalties of perjury that on August 24, 2023 I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

An Abbreviated Notice of Resource Area Delineation filed under the Massachusetts Wetlands Protection Act and the Dover Wetlands Protection Bylaw by LEC Environmental Consultants, Inc. with the Town of Dover Conservation Commission on August 24, 2023 for property located at 0 Off Junction Street and 15, 17, and 19 Junction Street.

The form of the notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.

Sharon A Sullivan
Signature

August 24, 2023
Date

LEC WETLANDS WILDLIFE WATERWAYS

August 24, 2023

CERTIFIED MAIL

«Name»
«Name2»
«Address»
«City», «State» «Zip»

Re: Abbreviated Notice of Resource Area Delineation [LEC File #: BoE\23-321.04]
Junction Street
Assessor's Map 20; Lots 5, 9, 10 & 11
Dover, Massachusetts

Dear Abutter:

On behalf of the Applicant, Pulte Homes of New England, LLC, LEC Environmental Consultants, Inc., (LEC) has filed an *Abbreviated Notice of Resource Area Delineation (ANRAD) Application* with the Dover Conservation Commission to confirm the boundaries of jurisdictional Wetland Resource Areas associated with the above-referenced parcels located along Junction Street. The ANRAD Application and associated wetland boundary determinations have been completed in accordance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*) and its implementing Regulations (310 CMR 10.00, the *Act Regulations*), and the *Dover Wetlands Protection Bylaw* (Chapter 181, the *Bylaw*) and the *Rules and Regulations for the Dover Wetlands Protection Bylaw* (Chapter 263, the *Bylaw Regulations*).

The *ANRAD Application* and accompanying site plans are available for review by the public by contacting the Dover Conservation Commission. Further information regarding this application will be published at least five (5) days in advance in the *Dover-Sherborn Press*. Notice of the Public Hearing will also be posted at the Dover Town Hall at least 48 hours in advance.

A remote Public Hearing will be held on September 13, 2023 at 7:30 p.m., in accordance with the provisions of the *Act* and its implementing *Regulations*, and the *Bylaw* and the *Bylaw Regulations*. Please check the Town's website and the Board/Committee's page for any updated information on the meeting.

Please do not hesitate to review the materials and/or attend the public hearing should you have questions or concerns about the proposed project.

Sincerely,

LEC Environmental Consultants, Inc.

Richard A. Kirby
Senior Wetland Scientist

Notification to Abutters

By Hand Delivery, Certified Mail (return receipt requested), or Certificates of Mailing

This is a notification required by law. You are receiving this notification because you have been identified as the owner of land abutting another parcel of land for which certain activities are proposed. Those activities require a permit under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40).

In accordance with the second paragraph of the Massachusetts Wetlands Protection Act, and 310 CMR 10.05(4)(a) of the Wetlands Regulations, you are hereby notified that:

A. An Abbreviated Notice of Resource Area Delineation was filed with the Dover Conservation Commission on August 24, 2023 to confirm the boundaries of jurisdictional Wetland Resource Areas subject to protection under M.G.L. c. 131 §40.

B. The name of the applicant is: Pulte Homes of New England, LLC.

C. The address of the land where the activity is proposed is: Junction Street (Assessor's Map 20; Lots 5, 6, 10, and 11), Dover, Massachusetts.

D. Copies of the Abbreviated Notice of Resource Area Delineation may be examined or obtained at the office of the Dover Conservation Commission, located at 5 Springdale Avenue. The regular business hours of the Commission are Monday through Thursday, 9:00 a.m. – 3:00 p.m., and the Commission may be reached at 508-785-0032.

E. Copies of the Abbreviated Notice of Resource Area Delineation may be obtained from the applicant's representative, LEC Environmental Consultants, Inc., by calling 781-245-2500. An administrative fee may be applied for providing copies of the ANRAD and plans.

F. Information regarding the date, time, and location of the public hearing regarding the Abbreviated Notice of Resource Area Delineation may be obtained from the Dover Conservation Commission. Notice of the public hearing will be published at least five business days in advance, in the Dover-Sherborn Press.

Notification provided pursuant to the above requirement does not automatically confer standing to the recipient to request Departmental Action for the underlying matter. See 310 CMR 10.05(7)(a)4.

OFFICE OF
BOARD OF ASSESSORS
P.O. BOX 250
DOVER, MASSACHUSETTS 02030-0250
508-785-0032 EXT. 241

August 17, 2023

Sharon Sullivan
LEC Environmental Consultants, Inc.
380 Lowell Street, Suite 101
Wakefield, MA 01880

Re: Certified List of 300-Foot Abutters for Parcel Nos. 20-5-0 (Lot 2, Off Junction Street), 20-9-0 (15 Junction Street), 20-10-0 (17 Junction Street) & 20-11-0 (19 Junction Street)

Dear Ms. Sullivan:

Listed below are the abutters of the property assessed to Frank N. Gobbi, PO Box 220 Westwood, MA 02090-0220, which are known as Lot 2, Off Junction Street and 15, 17 and 19 Junction Street and shown on the Assessors' Plans as Map 20, Parcels 5, 9, 10 & 11. This certification represents owners of land within 300 feet of the property lines, including those across a traveled way or across a body of water, according to our most recent tax list. Please contact the Town of Medfield for additional abutters in that community.

20-2-0 (21 Junction Street)
Martin Gardiner & Joy Ellen Gardiner, Trustees
Joy Ellen Gardiner 1994 Revocable Trust
PO Box 578
Dover, MA 02030-0578

20-3-0 (Off Junction Street)
Florence G. Gardiner, Trustee
The FGG Realty Trust
PO Box 578
Dover, MA 02030-0578

20-4-0 (Off Junction Street)
20-6-0 (Lot 1, Off Junction Street)
20-7-0 (157 Farm Street)
20-7-A (Lots 1 & 2, Junction Street)
Dover-Sherborn Regional School District
157 Farm Street
Dover, MA 02030

20-11-A (Lot 1, Junction Street)
Susan Leung & Bernard Leung &
Lionel Leung
171 Harding Street
Medfield, MA 02052

300-Foot Abutters to Parcel Nos. 20-5-0, 20-9-0, 20-10-0 & 20-11-0 (continued)

20-12-0
Wendy B. Darragh & Michael A. Darragh
22 Junction Street
Dover, MA 02030

20-13-0
Richard K. Malcom & Rosalind R. Malcom
16 Junction Street
Dover, MA 02030

20-14-0
Charles W. Gibson, Jr. & Elizabeth C. Gibson
159 Farm Street
Dover, MA 02030

20-15-0
Colin D. Ryan & Janet L. Ryan
161 Farm Street
Dover, MA 02030

Very truly yours,

Courtney Daniels
Assessor Clerk

C: Conservation Commission

Medfield, MA Abutters List

Parcel ID	Location	Name1	Name2	Address1	City	State	Zip
80-004	18 Evergreen Way	James R. Cardell		18 Evergreen Way	Medfield	MA	02052
80-005	16 Evergreen Way	Susan M. Chapski	Susan Chapski Trust	16 Evergreen Way	Medfield	MA	02062
80-006	14 Evergreen Way	Daniel J. Cawley	Jennifer M. Cawley	14 Evergreen Way	Medfield	MA	02052
80-007	12 Evergreen Way	Charles B. Abba	Alexandra B. Abba	12 Evergreen Way	Medfield	MA	02052
80-008	10 Evergreen Way	Matthew Lederhos	Michelle Lederhos	10 Evergreen Way	Medfield	MA	02052
80-009	8 Evergreen Way	Justin D. Casinghino	Nicole L. Casinghino	8 Evergreen Way	Medfield	MA	02052
80-010	6 Evergreen Way	Mark Daniels	Rebecca Daniels	6 Evergreen Way	Medfield	MA	02052
80-011	4 Evergreen Way	Medfield Holdings LLC		P. O. Box 377	Medfield	MA	02052
80-012	2 Evergreen Way	Christopher Angell	Rubo Fu	2 Evergreen Way	Medfield	MA	02052
80-013	171 Harding Street	Susan Leung	Bernard Leung	171 Harding Street	Medfield	MA	02052
80-014	169 Harding Street	Donald M. Fitzpatrick	Susan M. Fitzpatrick	169 Harding Street	Medfield	MA	02052
80-015	167 Harding Street	Daniel M. Karger	Lisa B. Karger	167 Harding Street	Medfield	MA	02052
80-023	172 Harding Street	Sarah T. Lemke	Scott J. Lemke	172 Harding Street	Medfield	MA	02052
80-024	5 Evergreen Way	Newton H. Thompson III	Kathleen A. Thompson	5 Evergreen Way	Medfield	MA	02052
80-025	7 Evergreen Way	Roberta F. Perrone	R.F. Perrone Family Trust	7 Evergreen Way	Medfield	MA	02052
80-026	9 Evergreen Way	William F. Caragher	Judith S. Caragher	9 Evergreen Way	Medfield	MA	02052
80-027	16 Stonybrook Road	Andrew T. Stein	Jaclyn Stein	16 Stonybrook Road	Medfield	MA	02052
80-031	11 Stonybrook Road	Dharmendra Shivaji	Charanya Dinakar	11 Stonybrook Road	Medfield	MA	02052
80-035	16 Woodfall Road	Paul V. O'Brien	Brookie L. O'Brien	16 Woodfall Road	Medfield	MA	02052

Abbreviated Notice of Resource Area Delineation

Junction Street

Assessor's Map 20; Lots 5, 9, 10 & 11

Dover, Massachusetts

August 24, 2023

1. Introduction

On behalf of the Applicant, Pulte Homes of New England, LLC, (Essek Petrie, Contact), LEC Environmental Consultants, Inc., (LEC) is filing the enclosed *Abbreviated Notice of Resource Area Delineation* (ANRAD) Application to confirm the boundaries of jurisdictional Wetland Resource Areas associated with properties along Junction Street in Dover, Massachusetts. The ANRAD Application and associated wetland boundary determinations have been completed in accordance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, § 40, the *Act*) and its implementing Regulations (310 CMR 10.00, the *Act Regulations*); the *Dover Wetlands Protection Bylaw* (Chapter 181, the *Bylaw*) and the *Rules and Regulations for the Dover Wetlands Protection Bylaw* (Chapter 263, the *Bylaw Regulations*). MassDEP Field Delineation Forms are included in Appendix B. An *Abbreviated Notice of Resource Area Delineation Plan* dated August 17, 2023, and prepared by Control Point Associates, Inc., (*ANRAD Plan*) is included as Appendix C.

LEC conducted a site evaluation on July 27, 2023 to determine the extent of protectable Wetland Resource Areas and to delineate the boundaries of Bordering Vegetated Wetlands (BVW). The ANRAD Application seeks confirmation that the Wetland Resource Areas associated with the site are limited to BVW, and confirmation that the BVW boundaries are correct, as depicted on the *ANRAD Plan*. This report provides a General Site Description, LEC's Wetland Boundary Determination Methodology, and a description of the Wetland Resource Areas.

2. General Site Description

The approximately 27.85± acre site is comprised of 4 parcels (Assessor's Map 20; Lots 5, 9, 10, & 11), and is located south of the Dover-Sherborn Middle School and High School, north of Evergreen Way, east of the Charles River, and west of Junction Street within the southwestern portion of Dover, Massachusetts (Appendix A, Figures 1 and 3). More specifically, the site is located off the west side of Junction Street, directly north of the Dover-Medfield town boundary, and east of the Medfield Charles River State Reservation. Residential development and single-family dwellings associated with Evergreen Way and Junction Street are located south and east of the site, respectively. The site is undeveloped and wooded, containing forested uplands and wetlands. Forested wetlands bifurcate the site in a north-south direction and extend off-site to the north.

Easterly view of forested upland within northern portion of the site

Forested uplands comprise the balance of the site. Low-gradient site topography occurs throughout the property, with an elevation gradient of roughly 8 feet descending westerly from Junction Street toward the BVW, and roughly 2 feet descending easterly from the western property boundary toward the BVW. A stone wall occurs along the southern property boundary, while a footpath and Right-Of-Way (ROW) extends diagonally through the site roughly from the southeastern property corner towards the northwestern property corner. Several shorter footpaths extend from the ROW.

Vegetation within the forested uplands includes a canopy dominated by eastern white pine (*Pinus strobus*), and northern red oak (*Quercus rubra*), with patches of American beech (*Fagus grandifolia*), sassafrass (*Sassafras albidum*), and red maple (*Acer rubrum*), and individuals of yellow birch (*Betula alleghaniensis*), ash (*Fraxinus* spp.), hickory (*Carya* sp.), black gum (*Nyssa sylvatica*), eastern hemlock (*Tsuga canadensis*), and black cherry (*Prunus serotina*). The understory is dominated by saplings from the canopy, with patches of sweet pepperbush (*Clethra alnifolia*), huckleberry (*Gaylussacia* sp.), and witch hazel (*Hamamelis virginiana*), and individuals of common buckthorn (*Rhamnus cathartica*), hazelnut (*Corylus* sp.), and sapling tree of heaven (*Ailanthus altissima*). The groundcover contains patches of bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wintergreen (*Gaultheria procumbens*), partridge berry (*Mitchella repens*), and lowbush blueberry (*Vaccinium angustifolium*), with scattered entanglements of common greenbrier (*Smilax rotundifolia*), and scattered patches of poison ivy (*Toxicodendron radicans*), princess pine (*Dendrolycopodium obscurum*), miscellaneous sedges (*Carex* spp.), Virginia creeper (*Parthenocissus quinquefolia*), and seedlings from the canopy.

According to the NRCS Web Soil Survey, the central portion of the property contains Ridgebury Fine Sandy Loam, while the eastern and western portions of the site contain Woodbridge Fine Sandy Loam. NRCS describes the Ridgebury Series as consisting of very deep, somewhat poorly and poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to dense contact. They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toe-slope positions of hills, drumlins, and ground moraines, and in till plains. NRCS describes the Woodbridge Series as "consisting of moderately well drained loamy soils formed in lodgment till. They are very deep to bedrock and moderately deep to dense contact. They are nearly level to moderately steep soils on hills, drumlins, till plains, and ground moraines.

LEC inspected soil conditions within the uplands adjacent to the BVW and observed soil conditions generally consistent with the mapped soil series, although topsoil depths were often less than the mapped unit descriptions. Specifically, LEC observed a 2 to 3+ inch thick, sandy loam to fine sandy loam topsoil (A horizon) with a soil matrix color of 10YR 2/2. The A horizon is underlain by a weathered, fine sandy loam subsoil (B_w horizon) with a soil matrix ranging from 10YR 3/3 to 4/4 to a depth of 18± inches. Generally, no redoximorphic features or other indicators of hydrology were observed within the upland soil profile; however, if observed, these features were too deep within the soil column and within a relatively high-chroma soil matrix - rendering the observed soils within the uplands 'non-hydric' according to the *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020, the *Field Indicators Guide*). Similar upland soil profiles were observed and are described in the attached field data forms. (Appendix B).

2.1 Natural Heritage and Endangered Species Program Designation

According to the 15th edition of the *Massachusetts Natural Heritage Atlas* (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP) and the MassGIS data layer, no areas of Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species exist on the site. No mapped Potential Vernal Pools (PVP) or Certified Vernal Pools (CVP) occur within proximity to the site. (Appendix A, Figure 3).

2.2 Floodplain Designation

According to the July 17, 2012 *Federal Emergency Management Agency* (FEMA) *Flood Insurance Rate Map* (FIRM) for the town of Dover, Massachusetts (Community Panel Number: 25021C0154E), the entire property is located within Zone X [unshaded] - *Areas*

determined to be outside of the 0.2% annual chance floodplain, therefore, no portions of the site are located within the floodplain (Appendix A, Figure 3).

3. Wetland Boundary Determination Methodology

LEC conducted a site evaluation on July 27, 2023 to determine the extent of protectable Wetland Resource Areas and to delineate the boundaries of Bordering Vegetated Wetlands (BVW).

The extent of Wetland Resource Areas was determined by observing existing plant communities, and the presence or absence of hydric soils and hydrologic indicators in accordance with the aforementioned statutes and as further defined in the Army Corps of Engineers *Wetland Delineation Manual* (Environmental Laboratory, 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2, January 2012); the *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* (Second Edition, September 2022); the *Field Indicators Guide*; and the criteria established in 310 CMR 10.55, and in the *Bylaw Regulations*.

The BVW boundaries were demarcated in the field with sequentially-numbered, blaze orange surveyors' tape embossed with the text "LEC Resource Area Boundary" and numbered 1 through 93, and 1A through 43A. LEC flagging stations U1 through U14 delineate the boundary of an upland island contained within the BVW within the central portion of the site. Massachusetts Department of Environmental Protection (MassDEP) BVW Field Data Forms for two (2) representative transects are provided as Appendix B. LEC flagging stations were survey located by Control Point Associates, Inc., and are depicted on the *ANRAD Plan* (Appendix C).

3.1 Plant Species Identification

LEC identified plant species comprising 5% or more of the vegetative cover along the BVW boundaries. Identifications were made to the species level when morphologically possible and were used along with other hydrologic indicators to define the BVW boundaries in accordance with definitions and criteria in 310 CMR 10.55(2).

3.1.1 Identification of Wetland Indicator Species

The regional wetland indicator status for identified plant species was obtained from the classification system described in the *National List of Plant Species that Occur in Wetlands: Massachusetts* (On-line 2015 - http://rsgisias.crrel.usace.army.mil/NWPL

ALSO: Northcentral and Northeast 2014 Regional Wetland Plant List, Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner, Phytoneuron 2014-41: 1-42). This classification system divides plant species into five categories and identifies the wetland indicator status based on the frequency of their occurrence in wetland habitat. These include, in order of lowest to highest frequency within wetlands: Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), and Obligate (OBL).

Plant species with a FAC, FACW or OBL wetland indicator status occur in wetlands more than 50% of the time and are considered "wetland indicator plants." Plant species with a FACU and UPL wetland indicator status, and those not contained within the list occur in wetlands less than 50% of the time, are not considered "wetland indicator plants." This system of classification has been adopted by the Department of Environmental Protection (DEP) as the definitive source regarding the indicator status of wetland plants.

3.1.2 Measurement of Relative Abundance

The relative abundance or percent cover of each plant species occurring along the BVW boundaries was determined visually. When doing so, the percent cover of each plant species was estimated using total aerial distribution within the plot.

3.1.3 Measurement of Vegetative Distribution and Density

The relative pattern of plant distribution within each vegetative layer (trees, shrubs/ sapling, vines, and herbs) was visually determined. Plant species within each layer were determined to occur as single plants, patches or clusters, entanglements, or as the dominant plant species. In addition, LEC observed the relative plant density between each vegetation layer, noting whether the sample layer is densely vegetated, contains moderately dense vegetation, is variably dense within the sample layer, or is sparsely vegetated.

3.2 Evaluation of Edaphic Characteristics

3.2.1 General Soil Analysis

Prior to conducting the site evaluation, LEC reviewed United States Geologic Survey (USGS) Topographic Maps and NRCS Soil Survey Maps, as noted above. The purpose of this review was to become familiar with the site's general soil characteristics. During site reconnaissance, LEC determined the approximate location of the wetland boundaries using a hand-held auger and/or spade. LEC investigated soil conditions within these representative areas by evaluating soils to a depth of at least 24 inches, or refusal. The

purpose of this investigation was to confirm and document the difference in soil conditions between the wetland and adjacent upland areas. Specifically, LEC analyzed soil horizon thickness and depth, soil texture, and soil color, noting the presence or absence of redoximorphic features in accordance with *U.S. Army Corps of Engineers, Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, 2012 and *Field Indicators for Identifying Hydric Soils in New England, June 2020*.

3.2.2 Soil Horizon Thickness and Depth

LEC noted the presence of all soil layers and horizons (e.g., O, A, E, B, and/or C) and their relative thickness and depth. The thickness of the O soil layer may be directly related to wetness, and is critical to the identification of a hydric soil. Specifically, histosols (organic soil layers measuring greater than 16 inches thick) and soils with a histic epipedon (an organic layer between 8 and 16 inches thick) always qualify as hydric soils, provided the hydrology that created these soil conditions still exists and has not been altered. Although not directly related to wetness, the thickness of the A or A_p horizons is a function of the depth of plowing (many of New England's forests today were historically agricultural fields) and/or a function of erosion and deposition of organic matter. Interpreting redoximorphic features within the A or A_p horizons can be difficult given their relatively dark color. Redoximorphic features are best observed in the soil layers beneath the A or A_p horizons.

3.2.3 Soil Texture

Soil texture refers to the relative proportions of sand, silt, and clay particles in the soil. Although there are several standard systems for determining soil texture, LEC utilized the United States Department of Agriculture (USDA) system, because it is widely accepted and referred to in the *Field Indicators* guide referenced above. Specifically, LEC identified whether the soil is classified as sand, loamy sand, sandy loam, loam, silt loam, silty clay loam, or clay. LEC also estimated the relative proportion of organic matter within the topsoil to determine if the soil is classified as an organic soil. Differences in soil texture affect how water moves through the soil and the type of hydrologic indicators that form when hydric conditions are present during the growing season.

3.2.4 Soil Color

Using the Munsell® Soil Color Charts, LEC examined the hue, value, and chroma of the different soil horizon matrixes (dominant soil color) and redoximorphic features present. The purpose of examining the soil color within the A or A_p horizon is to determine whether these horizons are rich in organic material and meet the criteria for dark or very

dark. This distinction refers to the relative amount of organic matter within the soil horizon and may indicate the presence of saturated conditions during the growing season.

Within the B and/or C horizons, the soil color and color patterns may indicate the movement of iron and/or other minerals within the soil. The movement and/or concentration of iron and other minerals, such as manganese, may indicate hydric conditions persist during the growing season. Specifically, a soil matrix color with a relatively low chroma (chroma 2 or less) and high value (value 4 or more) due to wetness is often defined as a depleted matrix - the iron and/or other minerals have been removed or depleted from the soil due to groundwater fluctuations, soil saturation, and reduction. A soil with a depleted matrix due to wetness within the upper 20 inches will likely constitute a hydric soil.

3.2.5 Redoximorphic Features

During the soil evaluation, LEC documented the presence or absence of redoximorphic features within the soil sample. Redoximorphic features are changes in soil color and/or texture that contrast from the matrix color and dominant soil texture and include redox depletions (formerly referred to as "low-chroma mottles"), redox concentrations (formerly referred to as "high-chroma mottles"), nodules, concretions, pore linings, and oxidized rhizospheres. Redoximorphic features form through the processes of reduction, translocation, and oxidation of Fe and Mn oxides when groundwater levels fluctuate near the soil surface. Commonly observed redoximorphic features include redox depletions, occurring when minerals in the soil are reduced or removed, and redox concentrations or soil masses, occurring when minerals accumulate. Less commonly observed redoximorphic features include nodules and concretions, which are hardened, cemented soil masses. Pore linings are localized areas of brightly colored soils located adjacent to a pore within the soil. Oxidized rhizospheres are a form of pore lining that occurs on the surface of live roots of certain plants.

4. Wetland Resource Areas

Wetland Resource Areas associated with the site include BVW. A description of the Wetland Resource Area is provided below.

4.1 Bordering Vegetated Wetland (BVW)

According to the *Act Regulations* [310 CMR 10.55(2)(a)], Bordering Vegetated Wetlands (BVW) are *freshwater wetlands which border on creeks, rivers, streams, ponds, and*

lakes where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants.

According to the *Bylaw Regulations*, Bordering Vegetated Wetlands are defined as: *Vegetated Wetlands which border on and/or have a hydrologic outlet during a one-year frequency storm event to a stream, lake or pond. The presence of a defined channel, culvert, storm drain or other natural or man-made structure or feature which serves to channel water within or away from a Vegetated Wetland shall be deemed sufficient evidence that the area should be designated a Bordering Vegetated Wetland…*

A representative view of the forested BVW

Forested wetlands jurisdictional as BVW under the *Act* and the *Bylaw* bifurcate the site in a north-south direction. The BVW extends off-site to the north and borders a perennial stream located 500± feet northwest of the site.

Scattered pockets of standing water and saturation to the surface were observed within the BVW at the time of LEC's site evaluation. Flagging stations 1 through 94 delineate the eastern property boundary, while flagging stations 1A through 43A delineate the western BVW boundary.

Vegetation within the forested wetland includes a moderately dense canopy containing patches of yellow birch, red maple, American beech, and northern red oak, with individuals of black gum, sassafrass, and eastern hemlock. The understory contains saplings from the canopy with clusters of sweet pepperbush, huckleberry, witch hazel, and highbush blueberry (*Vaccinium corymbosum*), with individuals of spicebush (*Lindera benzoin*), maple-leaf viburnum (*Viburnum acerifolium*), common buckthorn, and European buckthorn (*Frangula alnus*). The groundcover is vegetated with patches of New York fern (*Thelypteris noveboracensis*), hay-scented fern, poison ivy, and various grasses (*Poaceae* sp.), with individual clusters of skunk cabbage (*Symplocarpus foetidus*),

cinnamon fern (*Osmondastrum cinnamomeum*), and wood fern (*Dryopteris* sp.). Clusters of greenbrier are present in patches throughout the BVW.

LEC inspected soil conditions within the wetland and generally observed a 4-inch thick, sandy loam topsoil (A horizon), with a soil matrix color of 10YR 2/2. The topsoil is underlain by a 14-inch thick, depleted sandy loam subsoil (B_g horizon) with a soil matrix color matrix of 10YR 3/2 transitioning to 10YR 5/2 with depth. Redoximorphic concentrations of 10YR 4/4 and 10YR 3/6 were observed through the subsoil horizon, and LEC intermittently observed depletions of 10YR 4/2. This soil profile is considered hydric according to the *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020, the *Field Indicators Guide*), as it meets the indicator A11: Depleted Below Dark Surface.

5. Summary

On behalf of the Applicant, Pulte Homes of New England, LLC, (Essek Petrie, Contact), LEC is filing the enclosed ANRAD Application to confirm the boundaries of jurisdictional Wetland Resource Areas associated with several parcels off Junction Street in Dover, Massachusetts. The ANRAD Application and associated wetland boundary determinations have been completed in accordance with the *Act*, the *Act Regulations*, and the *Bylaw* and *Bylaw Regulations*. The delineated boundaries of BVW are depicted on the included *ANRAD Plan*. MassDEP Field Delineation Forms are included herein to support the wetland delineation, and the Applicant requests that the Commission issue an Order of Resource Area Delineation (ORAD) confirming the extent of Wetland Resource Areas located on the site and approving their boundaries as described and depicted herein.

Dover Conservation Commission. *Dover Wetlands Protection Bylaw* (Chapter 181) and *Rules and Regulations for Dover Wetlands Protection Bylaw*. (Chapter 263)

Massachusetts Department of Environmental Protection, Division of Wetlands and Waterways 1995. *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands (Second Edition, September 2022).*

Massachusetts Natural Heritage and Endangered Species Program Atlas of Estimated Habitat of State-listed Rare Wetlands Wildlife. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Route 135, Westborough, MA 01581, www.state.ma.us/dfwele/dfw. August 2017.

Massachusetts Wetlands Protection Act (M.G.L. c. 131, §. 40), www.state.ma.us/dep
Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00 & 310 CMR 10.58 (2) (a) 1.d.), www.state.ma.us/dep

National Flood Insurance Program, Federal Emergency Management Agency Flood Insurance Rate Map, Norfolk County, Massachusetts. July 17, 2012 (Community Panel Number 25021C0154E),

New England Hydric Soils Technical Committee, *Field Indicators for Identifying Hydric Soils in New England*, Version 4, June 2020.

NRCS Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/websoilsurvey.aspx

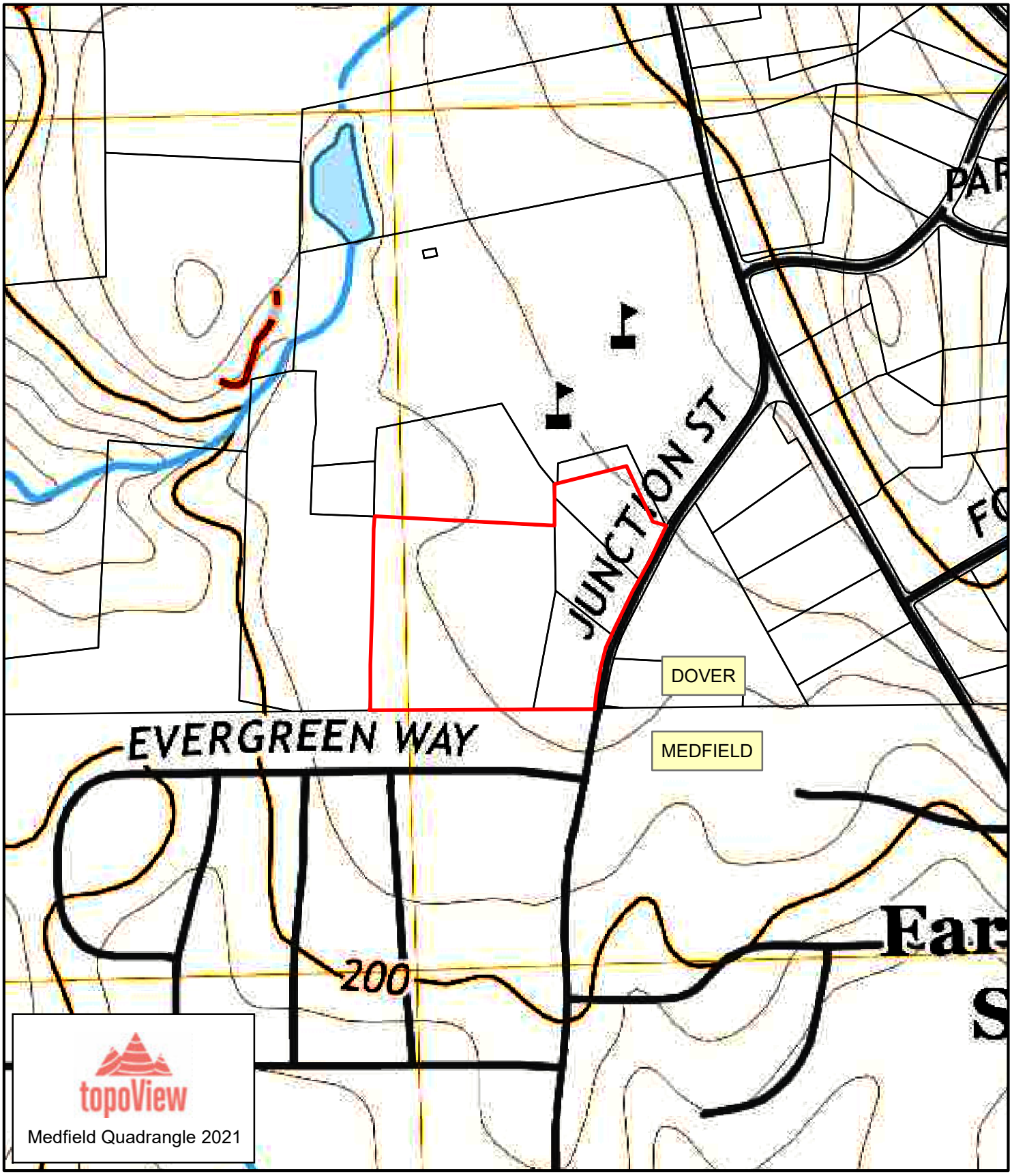
Appendix A

Locus Maps

Figure 1: USGS Topographic Map

Figure 2: FEMA Flood Insurance Rate Map

Figure 3: MassGIS Orthophoto & NHESP Map



LEC
Environmental Consultants, Inc.
Wakefield, MA
781.245.2500
www.lecenvironmental.com

Figure 1: USGS Topographic Map
0, 15, 17 & 19 Junction Street
Dover, MA

August 23, 2023

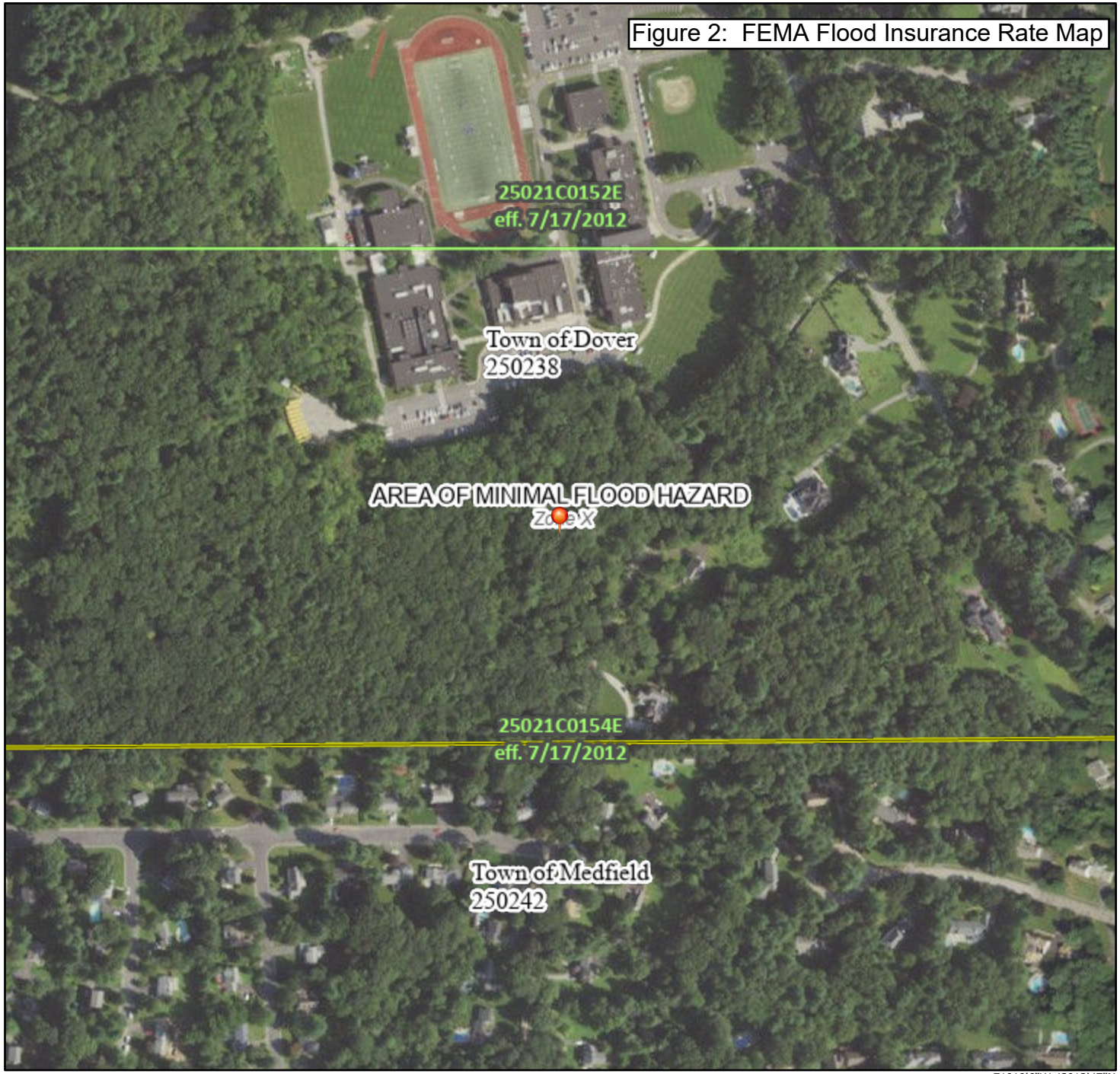
N

0 250 500 Feet

National Flood Hazard Layer FIRMette

FEMA

71°19'44"W 42°13'14"N



71°19'6"W 42°12'47"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- 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 *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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 7/7/2023 at 3:30 PM 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.

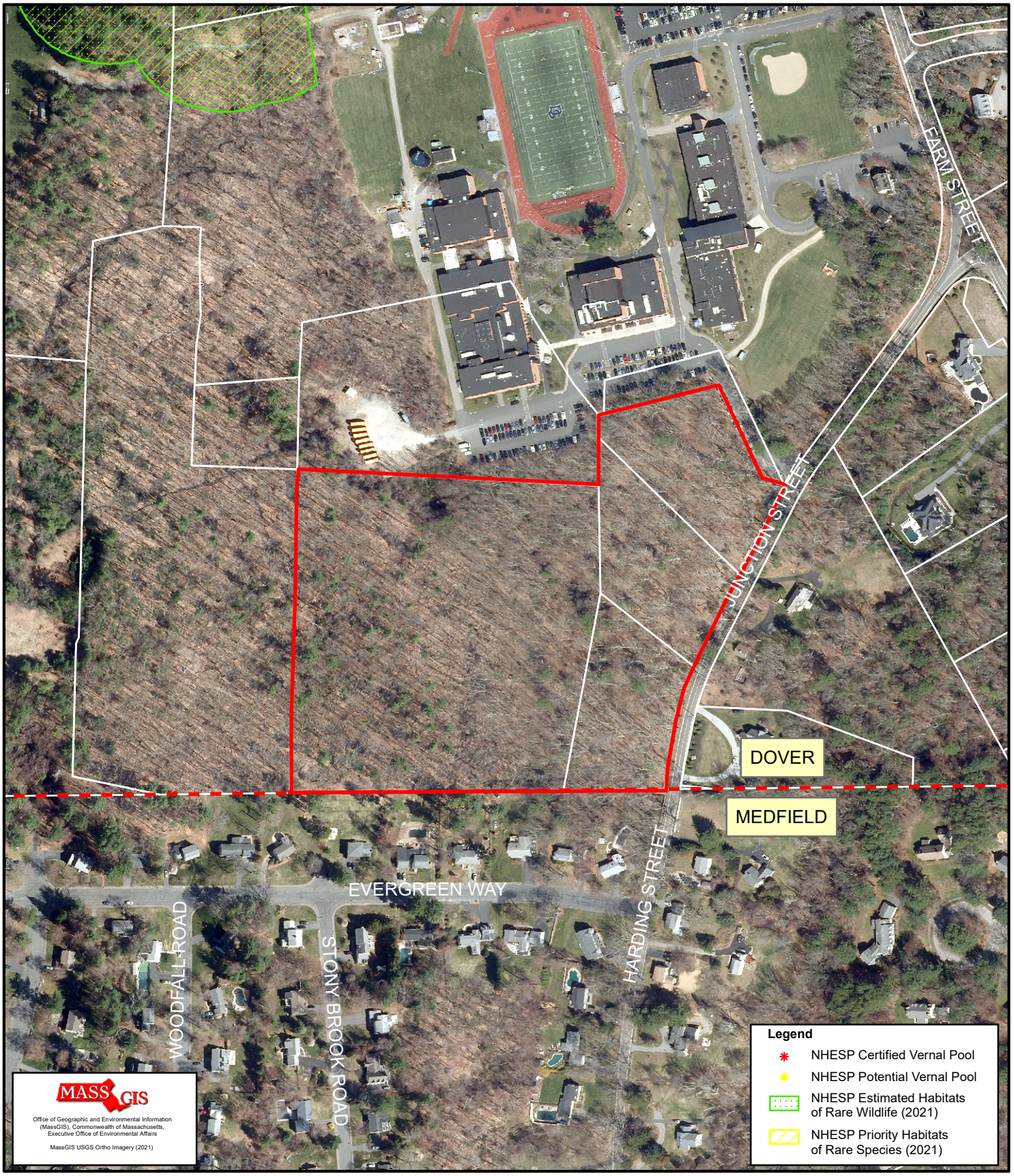


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Figure 3: MassGIS Orthophoto & NHESP Map
0, 15, 17 & 19 Junction Street
Dover, MA

August 23, 2023

N

0 150 300 Feet

Appendix B

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Forms

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: Junction Street City/Town: Dover Sampling Date: 7/27/2023

Applicant/Owner: Pulte Homes of New England LLC Sampling Point or Zone: NONWET 1

Investigator(s): LEC Environmental Consultants: Nicole Ferrara Latitude / Longitude: 42.21697, -71.32324

Soil Map Unit Name: Woodbridge fine sandy loam, 0-3 percent slopes NWI or DEP Classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes [✓] No [ ] (If no, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? (If yes, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes [ ] No [✓]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✓]
Hydric Soils criterion met?	Yes [ ] No [✓]	
Wetlands hydrology present?	Yes [ ] No [✓]	

Remarks, Photo Details, Flagging, etc.:

- Test pit excavated roughly 17' down-gradient of BVW Flag 20
- Observed soil profile is generally consistent with the NRCS Soil Series Descriptions

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes [ ]	No [✓]	Depth (inches)_____
Water Table Present?	Yes [ ]	No [✓]	Depth (inches)_____
Saturation Present (including capillary fringe)?	Yes [ ]	No [✓]	Depth (inches)_____

Wetland Hydrology Indicators

Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
[ ] Water-stained leaves	[ ] Hydrological records	[ ] Direct observation of inundation
[ ] Evidence of aquatic fauna	[ ] Free water in a soil test hole	[ ] Drainage patterns
[ ] Iron deposits	[ ] Saturated soil	[ ] Drift lines
[ ] Algal mats or crusts	[ ] Water marks	[ ] Scoured areas
[ ] Oxidized rhizospheres/pore linings	[ ] Moss trim lines	[ ] Sediment deposits
[ ] Thin muck surfaces	[ ] Presence of reduced iron	[ ] Surface soil cracks
[ ] Plants with air-filled tissue (aerenchyma)	[ ] Woody plants with adventitious roots	[ ] Sparsely vegetated concave surface
[ ] Plants with polymorphic leaves	[ ] Trees with shallow root systems	[ ] Microtopographic relief
[ ] Plants with floating leaves	[ ] Woody plants with enlarged lenticels	[ ] Geographic position (depression, toe of slope, fringing lowland
[ ] Hydrogen sulfide odor		

Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

Tree Stratum Plot size 50'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. red oak	Quercus rubra	FACU	38.0	Yes	No
2. yellow birch	Betula alleghaniensis	FAC	20.5	Yes	Yes
3. red maple	Acer rubrum	FAC	10.5	No	Yes
4. sassafras	Sassafras albidium	FACU	10.5	No	No
5. eastern white pine	Pinus strobus	FACU	3.0	No	No
6.					
7.					
8.					
9.					

82.5 = Total Cover

Shrub/Sapling Stratum Plot size 50'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. eastern white pine	Pinus strobus	FACU	38.0	Yes	No
2. yellow birch	Betula alleghaniensis	FAC	20.5	Yes	Yes
3. witch hazel	Hammamelis virginiana	FACU	10.5	Yes	No
4. sassafras	Sassafras albidium	FACU	10.5	No	No
5. red maple	Acer rubrum	FAC	10.5	No	Yes
6. highbush blueberry	Vaccinium corymbosum	FACW	3.0	No	Yes
7.					
8.					
9.					

93.0 = Total Cover

Herb Stratum Plot size 50'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. sassafras	Sassafrass albidium	FACU	20.5	Yes	No
2. hayscented fern	Dennstaedtia punctilobula	UPL	20.5	Yes	No
3. NY fern	Thelypteris noveboracensis	FAC	10.5	Yes	Yes
4. red oak	Quercus rubra	FACU	10.5	Yes	No
5. white pine	Pinus strobus	FACU	10.5	Yes	No
6. witch hazel	Hammamelis virginiana	FAC	10.5	Yes	Yes
7. lowbush blueberry	Vaccinium angustifolium	FACU	3.0	No	No
8. maple leaf viburnum	Viburnum acerifolium	UPL	3.0	No	No
9. european buckthorn	Rhamnus cathartica	FAC	3.0	No	Yes
10. sweet pepperbush	Clethra alnifolia	FAC	3.0	No	Yes
11.					
12.					

95.0 = Total Cover

VEGETATION – continued.

Woody Vine Stratum	Plot size				
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1.					
2.					
3.					
4.					
		0.0 = Total Cover			

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?				Yes ☐ No ☑
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species? Yes ☐ No ☑
	11	4		
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0? Yes ☐ No ☐
Wetland vegetation criterion met?		**Yes** ☐ **No** ☑		

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height

Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall

Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall

Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]		
0-2	10YR 2/2	100.00					fine sandy loam	A Horizon
2-5	10YR 3/3	100.00					fine sandy loam	Bw1 Horizon
5-18	10YR 4/4	95.00	10YR 5/6	5.00	C	M	fine sandy loam	Bw2 Horizon (Redox @ 14")
18-22+	2.5Y 5/4	100.00					fine sandy loam	C Horizon

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9)	☐ 5 cm Mucky Peat or Peat (S3)
☐ Black Histic (A3)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12)
☐ Hydrogen Sulfide (A4)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (A17)
☐ Stratified Layers (A5)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (F22)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		
☐ Sandy Redox (S5)		☐ Other (Include Explanation in Remarks)
☐ Stripped Matrix (S6)		
☐ Dark Surface (S7)		

Restrictive Layer (if observed) Type: _____ Depth (inches): _____

Remarks:

Hydric Soils criterion met? **Yes** ☐ **No** ☑

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: Junction Street City/Town: Dover Sampling Date: 7/27/2023

Applicant/Owner: Pulte Homes of New England LLC Sampling Point or Zone: WET 1

Investigator(s): LEC Environmental Consultants: Nicole Ferrara Latitude / Longitude: 42.21671, -71.32419

Soil Map Unit Name: Woodbridge fine sandy loam, 0-3 percent slopes NWI or DEP Classification: Wooded swamp, deciduous

Are climatic/hydrologic conditions on the site typical for this time of year? Yes [✓] No [ ] (If no, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? (If yes, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes [✓] No [ ]	**Is the Sampled Area within a Wetland?** Yes [✓] No [ ]
Hydric Soils criterion met?	Yes [✓] No [ ]	
Wetlands hydrology present?	Yes [✓] No [ ]	

Remarks, Photo Details, Flagging, etc.:

- Test pit excavated roughly 10' down-gradient of BVW Flag 20
- Observed soil profile is generally consistent with the NRCS Soil Series Descriptions

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes [ ]	No [✓]	Depth (inches)_____
Water Table Present?	Yes [ ]	No [✓]	Depth (inches)_____
Saturation Present (including capillary fringe)?	Yes [ ]	No [✓]	Depth (inches)_____

Wetland Hydrology Indicators

Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
[ ] Water-stained leaves	[ ] Hydrological records	[ ] Direct observation of inundation
[ ] Evidence of aquatic fauna	[ ] Free water in a soil test hole	[ ] Drainage patterns
[✓] Iron deposits	[ ] Saturated soil	[ ] Drift lines
[ ] Algal mats or crusts	[ ] Water marks	[ ] Scoured areas
[ ] Oxidized rhizospheres/pore linings	[ ] Moss trim lines	[ ] Sediment deposits
[ ] Thin muck surfaces	[✓] Presence of reduced iron	[ ] Surface soil cracks
[ ] Plants with air-filled tissue (aerenchyma)	[ ] Woody plants with adventitious roots	[ ] Sparsely vegetated concave surface
[ ] Plants with polymorphic leaves	[ ] Trees with shallow root systems	[ ] Microtopographic relief
[ ] Plants with floating leaves	[ ] Woody plants with enlarged lenticels	[ ] Geographic position (depression, toe of slope, fringing lowland
[ ] Hydrogen sulfide odor		

Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

Tree Stratum Plot size 50'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. red maple	Acer rubrum	FAC	38.0	Yes	Yes
2. yellow birch	Betula alleghaniensis	FAC	20.5	Yes	Yes
3. red oak	Quercus rubra	FACU	10.5	No	No
4. sassafrass	Sassafras albidium	FACU	10.5	No	No
5. eastern white pine	Pinus strobus	FACU	10.5	No	No
6.					
7.					
8.					
9.					

90.0 = Total Cover

Shrub/Sapling Stratum Plot size 50'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. red maple	Acer rubrum	FAC	38.0	Yes	Yes
2. witch hazel	Hammamelis virginiana	FAC	20.5	Yes	Yes
3. yellow birch	Betula alleghaniensis	FAC	20.5	Yes	Yes
4. eastern white pine	Pinus strobus	FACU	10.5	No	No
5. american beech	Fagus grandifolia	FACU	10.5	No	No
6.					
7.					
8.					
9.					

100.0 = Total Cover

Herb Stratum Plot size 50'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. NY fern	Thelypteris noveboracensis	FAC	20.5	Yes	Yes
2. lowbush blueberry	Vaccinium angustifolium	FACU	20.5	Yes	No
3. hayscented fern	Dennstaedtia punctilobula	UPL	10.5	Yes	No
4. maple-leaf viburnum	Viburnum acerifolium	UPL	10.5	Yes	No
5. white oak	Quercus alba	FACU	10.5	Yes	No
6. highbush blueberry	Vaccinium corymbossum	FACW	10.5	Yes	Yes
7. spicebush	Lindera benzoin	FACW	10.5	Yes	Yes
8. witch hazel	Hammamelis virginiana	FAC	10.5	Yes	Yes
9. red maple	Acer rubrum	FAC	10.5	Yes	Yes
10. eastern white pine	Pinus strobus	FACU	3.0	No	No
11.					
12.					

117.5 = Total Cover

VEGETATION – continued.

Woody Vine Stratum	Plot size 50'				
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1.					
2.					
3.					
4.					
			0.0 = Total Cover		

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?				Yes ☐ No ☑
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species? Yes ☑ No ☐
	14	10		
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0? Yes ☐ No ☐
Wetland vegetation criterion met?		**Yes** ☑	**No** ☐	

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height

Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall

Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall

Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

Sampling Point WET 1

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]		
0-4	10YR 2/2	100.00					sandy loam	A horizon
4-7	10YR 3/2	100.00					sandy loam	Bg1 horizon
7-18	10YR 5/2	95.00	10YR 4/4	5.00	C	M	sandy loam	Bg2 Horizon
18-22	10YR 3/4	93.00	10YR 3/6	5.00	C	M	sandy loam	C Horizon
			10YR 4/2	2.00	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9)	☐ 5 cm Mucky Peat or Peat (S3)
☐ Black Histic (A3)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12)
☐ Hydrogen Sulfide (A4)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (A17)
☐ Stratified Layers (A5)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☑ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (F22)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		
☐ Sandy Redox (S5)		☐ Other (Include Explanation in Remarks)
☐ Stripped Matrix (S6)		
☐ Dark Surface (S7)		

Restrictive Layer (if observed) Type: _____ Depth (inches): _____

Remarks:

Hydric Soils criterion met? **Yes** ☑ **No** ☐

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: Junction Street City/Town: Dover Sampling Date: 7/27/2023

Applicant/Owner: Pulte Homes of New England LLC Sampling Point or Zone: NONWET-2

Investigator(s): LEC Environmental Consultants: Nicole Ferrara Latitude / Longitude: 42.21713, -71.32584

Soil Map Unit Name: Ridgebury fine sandy loam, 3-8 percent slopes, extremely stony NWI or DEP Classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes [✓] No [ ] (If no, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? (If yes, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes [ ]	No [✓]	**Is the Sampled Area within a Wetland?** Yes [ ] No [✓]
Hydric Soils criterion met?	Yes [ ]	No [✓]	
Wetlands hydrology present?	Yes [ ]	No [✓]	

Remarks, Photo Details, Flagging, etc.:

- Test pit excavated roughly 10' up-gradient of BVW Flag 11A
- Observed soil profile is generally not consistent with the NRCS Soil Series Descriptions

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes [ ]	No [✓]	Depth (inches)_____
Water Table Present?	Yes [ ]	No [✓]	Depth (inches)_____
Saturation Present (including capillary fringe)?	Yes [ ]	No [✓]	Depth (inches)_____

Wetland Hydrology Indicators

Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
[ ] Water-stained leaves	[ ] Hydrological records	[ ] Direct observation of inundation
[ ] Evidence of aquatic fauna	[ ] Free water in a soil test hole	[ ] Drainage patterns
[ ] Iron deposits	[ ] Saturated soil	[ ] Drift lines
[ ] Algal mats or crusts	[ ] Water marks	[ ] Scoured areas
[ ] Oxidized rhizospheres/pore linings	[ ] Moss trim lines	[ ] Sediment deposits
[ ] Thin muck surfaces	[ ] Presence of reduced iron	[ ] Surface soil cracks
[ ] Plants with air-filled tissue (aerenchyma)	[ ] Woody plants with adventitious roots	[ ] Sparsely vegetated concave surface
[ ] Plants with polymorphic leaves	[ ] Trees with shallow root systems	[ ] Microtopographic relief
[ ] Plants with floating leaves	[ ] Woody plants with enlarged lenticels	[ ] Geographic position (depression, toe of slope, fringing lowland
[ ] Hydrogen sulfide odor		

Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

Tree Stratum Plot size 30'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. american beech	Fagus grandifolia	FACU	63.0	Yes	No
2. northern red oak	Quercus rubra	FACU	10.5	No	No
3. back gum	Nyssa sylvatica	FACW	10.5	No	Yes
4. eastern white pine	Pinus strobus	FACU	10.5	No	No
5. eastern hemlock	Tsuga canadensis	FACU	3.0	No	Yes
6.					
7.					
8.					
9.					

97.5 = Total Cover

Shrub/Sapling Stratum Plot size 15'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. eastern white pine	Pinus strobus	FACU	38.0	Yes	No
2. american beech	Fagus grandifolia	FACU	10.5	Yes	No
3. witch hazel	Hammamelis virginiana	FAC	3.0	No	Yes
4. highbush blueberry	Vaccinium corymbossum	FACW	3.0	No	Yes
5.					
6.					
7.					
8.					
9.					

54.5 = Total Cover

Herb Stratum Plot size 5'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. eastern white pine	Pinus strobus	FACU	20.5	Yes	No
2. partridge berry	Mitchella repens	FACU	10.5	Yes	No
3. lowbush blueberry	Vaccinium angustifolium	FACU	10.5	Yes	No
4. princess pine	Dendrolycopodium obscurum	FACU	3.0	No	No
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

44.5 = Total Cover

VEGETATION – continued.

Woody Vine Stratum	Plot size				
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1.					
2.					
3.					
4.					
			0.0 = Total Cover		

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?				Yes ☐ No ☑
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species? Yes ☐ No ☑
	6	0		
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0? Yes ☐ No ☐
Wetland vegetation criterion met?		**Yes** ☐	**No** ☑	

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height

Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall

Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall

Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]		
0-3	10YR 2/2	100.00					sapric	OA Horizon
3-5	2.5 Y 3/1	100.00					sandy loam	E Horizon
5-16	10YR 3/3	100.00					sandy loam	Bh Horizon
16-22	2.5Y 4/3	95.00	2.5Y 4/4	5.00	C	M	sandy loam	Bw Horizon

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9)	☐ 5 cm Mucky Peat or Peat (S3)
☐ Black Histic (A3)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12)
☐ Hydrogen Sulfide (A4)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (A17)
☐ Stratified Layers (A5)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (F22)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		
☐ Sandy Redox (S5)		☐ Other (Include Explanation in Remarks)
☐ Stripped Matrix (S6)		
☐ Dark Surface (S7)		

Restrictive Layer (if observed) Type: _____ Depth (inches): _____

Remarks:

Hydric Soils criterion met? **Yes** ☐ **No** ☑

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: Junction Street City/Town: Dover Sampling Date: 7/27/2023

Applicant/Owner: Pulte Homes of New England LLC Sampling Point or Zone: WET-2

Investigator(s): LEC Environmental Consultants: Richard Kirby Latitude / Longitude: 42.21714, -71.32663

Soil Map Unit Name: Ridgebury fine sandy loam, 3 to 8 percent slopes, extremely stony NWI or DEP Classification: Wooded Swamp

Are climatic/hydrologic conditions on the site typical for this time of year? Yes [✓] No [ ] (If no, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] significantly disturbed? (If yes, explain in Remarks)

Are Vegetation [ ], Soil [ ], or Hydrology [ ] naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes [✓]	No [ ]	**Is the Sampled Area within a Wetland?** Yes [✓] No [ ]
Hydric Soils criterion met?	Yes [✓]	No [ ]	
Wetlands hydrology present?	Yes [✓]	No [ ]	

Remarks, Photo Details, Flagging, etc.:

- Test pit excavated roughly 10' downgradient of BVW Flag 11A
- Observed soil profile is generally consistent with the NRCS Soil Series Descriptions

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes [ ]	No [✓]	Depth (inches) _____
Water Table Present?	Yes [✓]	No [ ]	Depth (inches) 4.00
Saturation Present (including capillary fringe)?	Yes [✓]	No [ ]	Depth (inches) 0.00

Wetland Hydrology Indicators

Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
[✓] Water-stained leaves	[ ] Hydrological records	[ ] Direct observation of inundation
[ ] Evidence of aquatic fauna	[✓] Free water in a soil test hole	[ ] Drainage patterns
[ ] Iron deposits	[✓] Saturated soil	[ ] Drift lines
[ ] Algal mats or crusts	[ ] Water marks	[ ] Scoured areas
[ ] Oxidized rhizospheres/pore linings	[ ] Moss trim lines	[ ] Sediment deposits
[✓] Thin muck surfaces	[ ] Presence of reduced iron	[ ] Surface soil cracks
[ ] Plants with air-filled tissue (aerenchyma)	[ ] Woody plants with adventitious roots	[ ] Sparsely vegetated concave surface
[ ] Plants with polymorphic leaves	[ ] Trees with shallow root systems	[ ] Microtopographic relief
[ ] Plants with floating leaves	[ ] Woody plants with enlarged lenticels	[ ] Geographic position (depression, toe of slope, fringing lowland
[ ] Hydrogen sulfide odor		

Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

Tree Stratum Plot size 30'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. red maple	Acer rubrum	FAC	20.5	Yes	Yes
2. swamp white oak	Quercus bicolor	FACW	10.5	Yes	Yes
3. american beech	Fagus grandifolia	FACU	10.5	Yes	No
4. eastern white pine	Pinus strobus	FACU	10.5	Yes	No
5. yellow birch	Betula alleghaniensis	FAC	10.5	Yes	Yes
6.					
7.					
8.					
9.					

62.5 = Total Cover

Shrub/Sapling Stratum Plot size 15'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. huckleberry	Gaylussacia sp.(Presumed fac)	FAC	20.5	Yes	Yes
2. yellow birch	Betula alleghaniensis	FAC	10.5	Yes	Yes
3. american beech	Fagus grandifolia	FACU	10.5	Yes	No
4. sweet pepperbush	Clethra alnifolia	FAC	10.5	Yes	Yes
5.					
6.					
7.					
8.					
9.					

52.0 = Total Cover

Herb Stratum Plot size 5'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. sweet pepperbush	Clethra alnifolia	FAC	10.5	Yes	Yes
2. partridge berry	Mitchella repens	FACU	10.5	Yes	No
3. lowbush blueberry	Vaccinium angustifolium	FACU	10.5	Yes	No
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

31.5 = Total Cover

VEGETATION – continued.

Woody Vine Stratum Plot size_____					
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1.					
2.					
3.					
4.					
			0.0 = Total Cover		

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?				Yes ☐ No ☑
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species?
	12	7		Yes ☑ No ☐
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0? Yes ☐ No ☐
Wetland vegetation criterion met?		**Yes** ☑	**No** ☐	

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height

Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall

Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall

Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

Sampling Point WET-2

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]		
0-3							Hemic	Oe Horizon
3-7	2.5Y 2.5/1	100.00					Sandy Loam	A Horizon
7-16	2.5Y 4/2	100.00					Sandy Loam	Bg Horizon (with organic streaking)

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9)	☐ 5 cm Mucky Peat or Peat (S3)
☐ Black Histic (A3)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12)
☐ Hydrogen Sulfide (A4)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (A17)
☐ Stratified Layers (A5)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☑ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (F22)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		
☐ Sandy Redox (S5)		☐ Other (Include Explanation in Remarks)
☐ Stripped Matrix (S6)		
☐ Dark Surface (S7)		

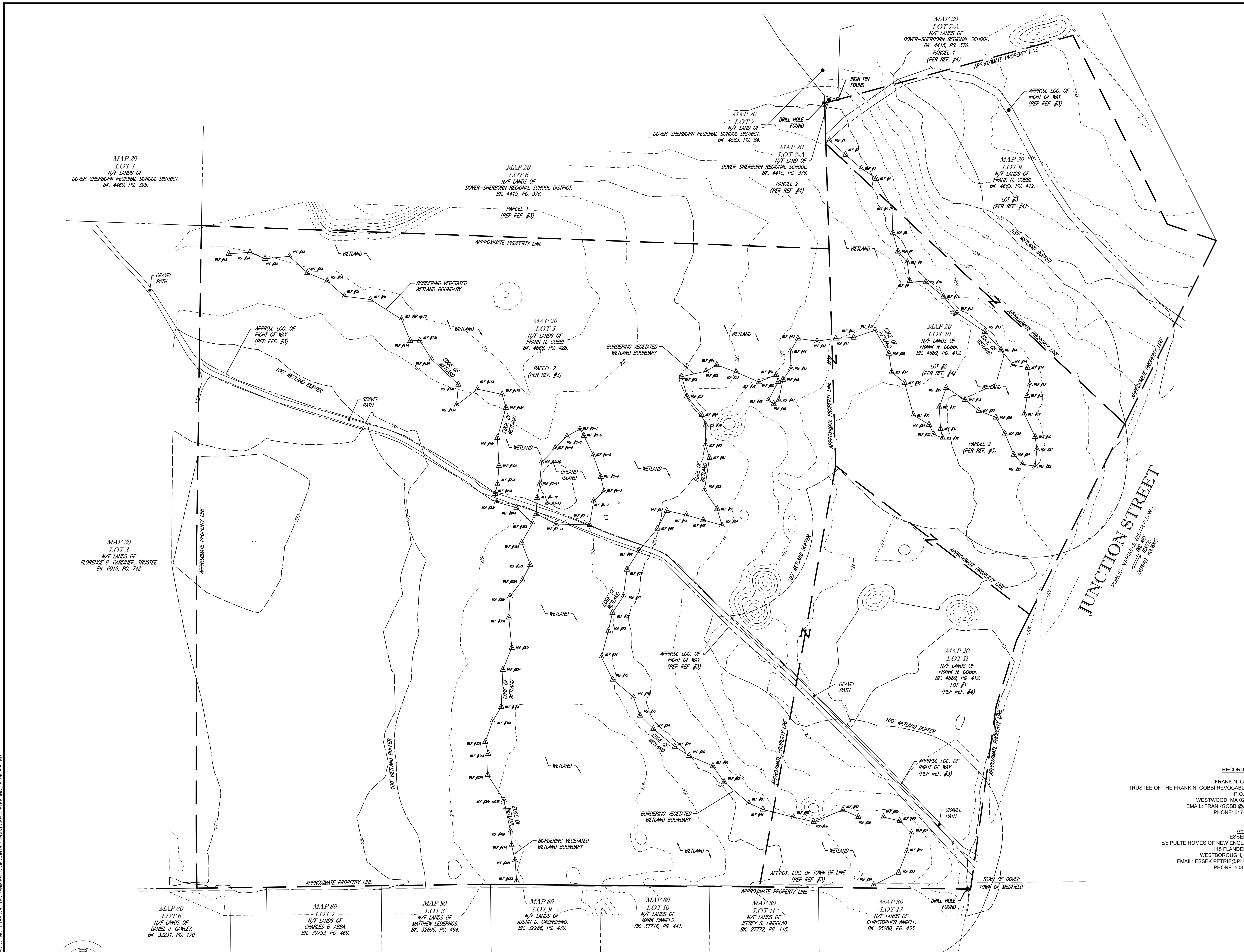
Restrictive Layer (if observed) Type: Rocky refusal Depth (inches): 16.00

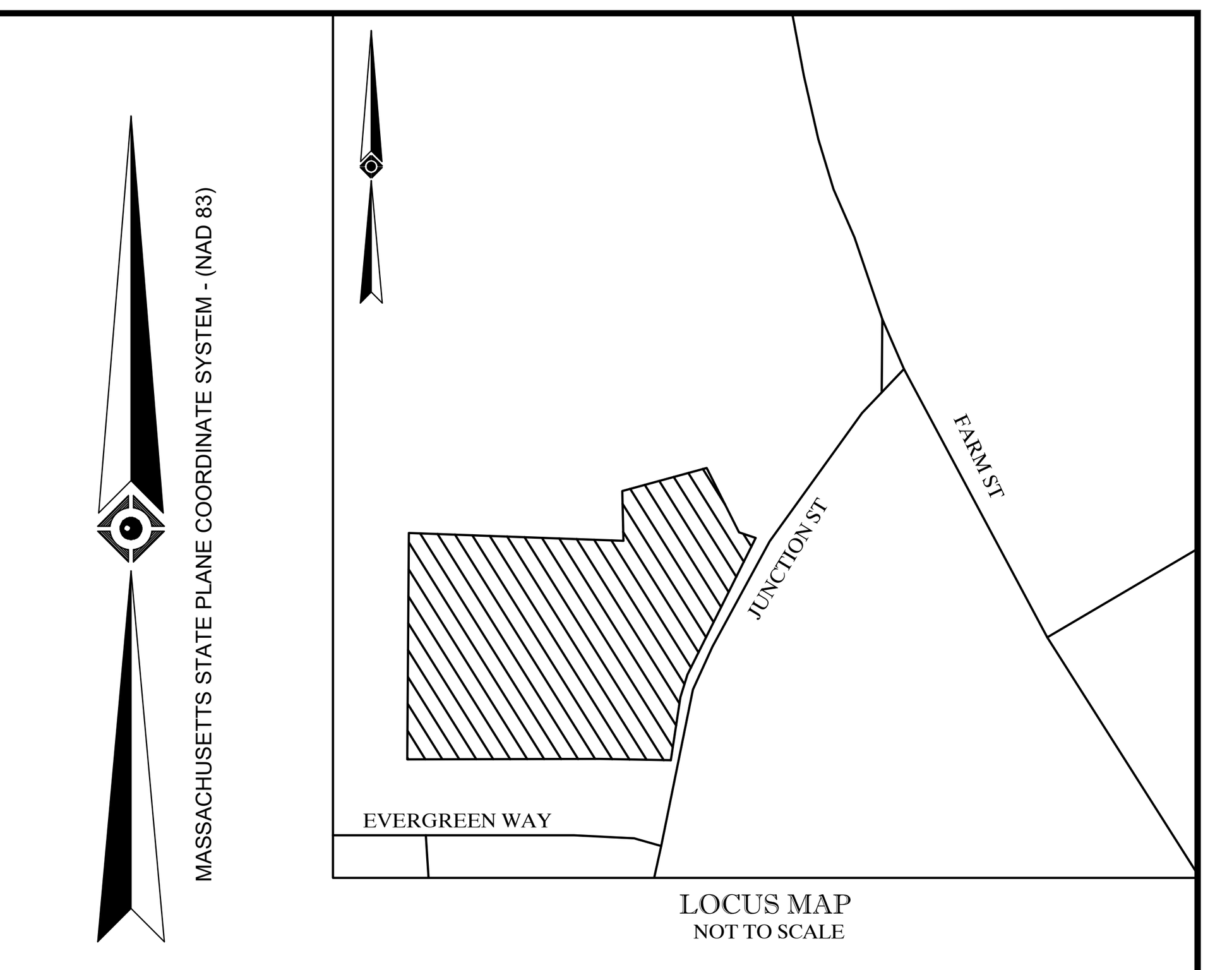
Remarks:

Hydric Soils criterion met? **Yes** ☑ **No** ☐

Appendix C

Abbreviated Notice of Resource Area Delineation Plan,
prepared by Control Point Associates, Inc., dated August 17, 2023





LOCUS MAP
NOT TO SCALE

NOTES:

1. PROPERTY KNOWN AS LOTS 5, 11, 10 & 9 AS SHOWN ON THE TOWN OF DOVER, NORFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS, MAP No. 20.
2. AREA = 995,346 SQUARE FEET OR 22.850 ACRES (PER REF #3 & #4)
3. UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. BEFORE ANY SITE EVALUATION, PREPARATION OF DESIGN DOCUMENTS OR EXCAVATION IS TO BEGIN, THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY CLIENT, A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC., AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN. IT IS STRONGLY RECOMMENDED THAT A COMPLETE TITLE SEARCH BE PROVIDED TO THE SURVEYOR FOR REVIEW PRIOR TO THE PLACEMENT OF OR ALTERATION TO IMPROVEMENTS ON THE PROPERTY.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS PARTIALLY LOCATED IN FLOOD HAZARD ZONE X-UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), PER REF #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. THE WETLAND DELINEATION LINE WAS PLACED IN THE FIELD BY LEC ON JULY 27, 2023, AND FIELD LOCATED BY CONTROL POINT ASSOCIATES, INC., ON JULY 31, 2023.
9. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TOPOGRAPHY & CONTOURS SHOWN HEREON ARE PER REFERENCE #5.
10. SUBJECT LOTS CREATED JANUARY & FEBRUARY, 1967, PER REFERENCES #3 & #4.

REFERENCES:

1. THE TAX ASSESSOR'S MAP OF THE TOWN OF DOVER, NORFOLK COUNTY, MAP 20.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, NORFOLK COUNTY, MASSACHUSETTS (ALL JURISDICTIONS), PANEL 154 OF 430," MAP NUMBER 25021C0154E, MAP EFFECTIVE DATE: JULY 17, 2012.
3. MAP ENTITLED "PLAN OF LAND IN DOVER & MEDFIELD, MASS.," PREPARED BY SCHOFIELD BROTHERS, REGISTERED LAND SURVEYORS, DATED FEBRUARY 1, 1967, RECORDED WITH NORFOLK REGISTRY OF DEEDS AS PLAN 208 OF 1967.
4. MAP ENTITLED "PLAN OF LAND IN DOVER & MEDFIELD, MASS.," PREPARED BY SCHOFIELD BROTHERS, REGISTERED LAND SURVEYORS, DATED JANUARY 5, 1967, RECORDED WITH NORFOLK REGISTRY OF DEEDS AS PLAN 209 OF 1967.
5. 2021 USGS LIDAR FOR CENTRAL EASTERN MASSACHUSETTS OBTAINED FROM NOAA DIGITAL COAST ONLINE DATA ACCESS VIEWER ON AUGUST 17, 2023.

RECORD OWNER:

FRANK N. GOBBI, JR.
TRUSTEE OF THE FRANK N. GOBBI REVOCABLE TRUST
P.O. BOX 220
WESTWOOD, MA 02090-0220
EMAIL: FRANKGOBBI@AOL.COM
PHONE: 617-899-8483

APPLICANT:
ESSEK PETRIE
c/o PULTE HOMES OF NEW ENGLAND, LLC
115 FLANDERS ROAD
WESTBOROUGH, MA 01581
EMAIL: ESSEK.PETRIE@PULTE.COM
PHONE: 508-621-2404

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

THIS IS TO CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS. NO NEW BOUNDARY LINES ARE BEING CREATED AND THOSE SHOWN ARE EXISTING AND ARE NOT BEING CHANGED OR ALTERED AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

COMMONWEALTH OF MASSACHUSETTS
GERRY L. HOLDRIGHT
NO. 49211
REGISTERED
PROFESSIONAL LAND SURVEYOR

8-17-2023
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

FIELD DATE	
07-31-2023	ABBREVIATED NOTICE OF RESOURCE AREA DELINEATION
FIELD BOOK NO. 23-11 MA	**PULTE HOMES**
FIELD BOOK PG. 63 & 64	JUNCTION STREET MAP 20, LOTS 5, 11, 10 & 9 TOWN OF DOVER, NORFOLK COUNTY COMMONWEALTH OF MASSACHUSETTS
FIELD CREW B.S.B.	CONTROL POINT ASSOCIATES, INC. 352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772 508.948.3000 - 508.948.3003 FAX
DRAWN: R.A.B.	ALBANY, NY 518-217-5010 CHALFONT, PA 215-712-9800 HAUPPAUGE, NY 631-580-2645 MANHATTAN, NY 646-780-0411 MT LAUREL, NJ 609-857-2099 WARREN, NJ 908-668-0099

REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
R.J.K.	G.L.H.	8-17-2023	1"=50'	03-230368-00	1 OF 1