LEC

WETLANDS WILDLIFE WATERWAYS

Abbreviated Notice of Resource Area Delineation

August 31, 2023

Subject Property
Portions of 1282 & 1287 Main Street
Map 12, Parcel 466 & Map 13, Parcel 855
Lynnfield, Massachusetts

Applicant
Ted Merchant
Toll Bros., Inc.
116 Flanders Road, Suite 1200
Westborough, MA 01581

Property Owner
Richard Luff, Trustee
Sagamore Spring Realty Trust
1282 Main Street
Lynnfield, MA 01940

Prepared by
LEC Environmental Consultants, Inc.
380 Lowell Street, Suite 101
Wakefield, MA 01880
781-245-2500

www.lecenvironmental.com

WETLANDS WILDLIFE WATERWAYS

August 31, 2023

Electronic and Hand Delivery (ecademartori@town.lynnfield.ma.us)

Lynnfield Conservation Commission
Town Hall
55 Summer Street
Lynnfield, MA 01940

Re: Abbreviated Notice of Resource Area Delineation [LEC File #: TBI\21-566.02]
Portions of 1282 & 1287 Main Street
Map 12, Parcel 466 & Map 13, Parcel 855
Lynnfield, Massachusetts

Dear Members of the Conservation Commission:

On behalf of the Applicant, Toll Bros., Inc., LEC Environmental Consultants, Inc., (LEC) is filing the enclosed *Abbreviated Notice of Resource Area Delineation* (ANRAD) Application with the Lynnfield Conservation Commission to confirm the boundaries of jurisdictional Wetland Resource Areas associated with portions of 1282 and 1287 Main Street in Lynnfield, 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 *Lynnfield Wetlands Protection Bylaw* (Chapter 240, the *Bylaw*) and its *Conservation Commission Regulations* (Chapter 320, the *Bylaw Regulations*).

One check made payable to the Town of Lynnfield in the amount of One Thousand, Twelve Dollars and Fifty Cents ($1,012.50) for the Town portion of the *Act* filing fee is enclosed. An electronic payment in the amount of Nine Hundred Eighty-Seven Dollars and Fifty Cents ($987.50) has been sent to the MA Department of Environmental Protection by eDEP. A check for the newspaper ad fee payable to *The Lynnfield Villager* for Fifty Dollars ($50.00) is also included.

Thank you for considering this application. We look forward to meeting with you at the September 19, 2023 Public Hearing to discuss the ANRAD. If you have any questions, please do not hesitate to contact us in our Wakefield Office at 781-245-2500 or at dwells@lecenvironmental.com or nferrara@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Dan Wells
Senior Wildlife/Wetland Scientist

Nicole M. Ferrara
Wetland Specialist

cc: DEP, Northeast Region; Toll Bros., Inc.; Sagamore Spring Realty Trust

Abbreviated Notice of Resource Area Delineation

ANRAD Application Report

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 and *Lynnfield Wetlands Protection Bylaw* (Chapter 240)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Lynnfield
City/Town

A. General Information

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

Portions of 1282 & 1287 Main Street
a. Street Address

Lynnfield
b. City/Town

01940
c. Zip Code

Latitude and Longitude:

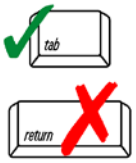
42.56030
d. Latitude

-71.03826
e. Longitude

12 / 13
f. Assessors Map/Plat Number

466 / 855
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:

Ted
a. First Name

Merchant
b. Last Name

Toll Bros., Inc.
c. Organization

116 Flanders Road, Suite 1200
d. Mailing Address

Westborough
e. City/Town

MA
f. State

01581
g. Zip Code

508-366-1440
h. Phone Number

i. Fax Number

tmerchant@tollbrothers.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)

Richard Luff, Trustee
a. First Name

b. Last Name

Sagamore Spring Realty Trust
c. Organization

1282 Main Street
d. Mailing Address

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

Lynnfield
e. City/Town

MA
f. State

01940
g. Zip Code

603-817-0138
h. Phone Number

i. Fax Number

rluff@sagamoregolf.com
j. Email Address

4. Representative (if any):

Dan
a. Contact Person First Name

Wells
b. Contact Person Last Name

LEC Environmental Consultants, Inc.
c. Organization

380 Lowell Street, Suite 101
d. Mailing Address

Wakefield
e. City/Town

MA
f. State

01880
g. Zip Code

781-245-2500
h. Phone Number

i. Fax Number

dwells@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 and *Lynnfield Wetlands Protection Bylaw* (Chapter 240)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Lynnfield
City/Town

B. Area(s) Delineated

1. Bordering Vegetated Wetland (BVW) — >1,000 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:

a. Resource Area	b. Linear Feet Delineated
Bank/ Mean Annual High Water Line	
c. Resource Area	d. Linear Feet Delineated
Isolated Vegetated Wetland	

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.

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 and *Lynnfield Wetlands Protection Bylaw* (Chapter 240)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Lynnfield
City/Town

D. Fees

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:

40770	8/29/2023
2. Municipal Check Number	3. Check date
Submitted electronically via eDEP	
4. State Check Number	5. Check date
LEC Environmental Consultants, Inc.	
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

Lynnfield
City/Town

E. Signatures

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

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made 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: MERCHANT, LD DIR.	2. Date: 8/23/23
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	6. Date: 8/30/2023

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
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

Lynnfield
City/Town

E. Signatures

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

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made 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 — By: [signature] TRUSTEE S3RET — 2. Date: 8/28/23

3. Signature of Property Owner (if different) — 4. Date

5. Signature of Representative (if any) — 6. Date: 8/30/2023

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.)

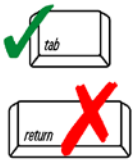
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

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:

Portions of 1282 & 1287 Main Street	Lynnfield
a. Street Address	b. City/Town
$987.50	Submitted electronically via eDEP
c. Fee amount	d. Check number

2. Applicant:

Ted	Merchant	Toll Bros., Inc.
a. First Name	b. Last Name	c. Company

116 Flanders Road, Suite 1200
d. Mailing Address

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

508-366-1440
h. Phone Number

3. Property Owner (if different):

Richard Luff, Trustee		Sagamore Spring Realty Trust
a. First Name	b. Last Name	c. Company

1283 Main Street
d. Mailing Address

Lynnfield	MA	01940
e. City/Town	f. State	g. Zip Code

603-817-0138
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	>1,000 a. feet of BVW	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	Bank/MAHW & IVW 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

ANRAD Wetland Fee Transmittal Form

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

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.)

AFFIDAVIT OF SERVICE

Under the
Massachusetts Wetlands Protection Act (M.G.L. c. 131, s. 40),
its implementing *Regulations* (310 CMR 10.00),
and the
Lynnfield Wetlands Protection Bylaw (Chapter 240)
and its implementing *Conservation Commission Regulations* (Chapter 320)

I, Sharon A. Sullivan, on behalf of Toll Bros., Inc., hereby certify under the pains and penalties of perjury that on September 5, 2023, I gave notification to abutters in compliance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40), its implementing *Regulations* (310 CMR 10.00), and the Lynnfield *Wetlands Protection Bylaw* (Chapter 240) in connection with the following matter:

> A Notice of Intent filed under the *Massachusetts Wetlands Protection Act* and the Lynnfield *Wetlands Protection Bylaw* by LEC Environmental Consultants, Inc., on behalf of the Applicant, Toll Bros., Inc., with the Town of Lynnfield Conservation Commission on August 31, 2023 for property located at portions of 1282 and 1287 Main Street (Map 12, Parcel 466 and Map 13, Parcel 855) in Lynnfield, Massachusetts.

The form of 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 _____ 9/5/2023

Sharon A. Sullivan — Date
Permitting Technician

September 5, 2023

CERTIFIED MAIL

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

Re: Abbreviated Notice of Resource Area Delineation [LEC File #: TBI\21-566.02]
Portions of 1282 & 1287 Main Street
Map 12, Parcel 466 & Map 13, Parcel 855
Lynnfield, Massachusetts

Dear Abutter:

On behalf of the Applicant, Toll Bros., Inc., LEC Environmental Consultants, Inc., (LEC) has filed an *Abbreviated Notice of Resource Area Delineation (ANRAD) Application* with the Lynnfield Conservation Commission to confirm the boundaries of jurisdictional Wetland Resource Areas associated with the above-referenced sites. 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 *Lynnfield Wetlands Protection Bylaw* (Chapter 240, the *Bylaw*) and its *Conservation Commission Regulations* (Chapter 320, the *Bylaw Regulations*).

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

A remote Public Hearing will be held on September 19, 2023 at 6:30 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.

Daniel L. Wells
Senior Wildlife/Wetland Scientist

Notice to Abutters

Massachusetts Wetlands Protection Act

Notice of Intent (NOI) and/or Abbreviated Notice of Resource Area Delineation (ANRAD) Filings

As required by M.G.L. c 131, s. 40 ("The Massachusetts Wetlands Protection Act"), an **APPLICANT** shall provide notification to all abutters and any property owner within 100 feet of the property line of the land where the activity is proposed, including if separated from that land by a public or private street.

The following applicant has filed a Notice of Intent with the Lynnfield Conservation Commission. A public hearing will be held as stated below.

Toll Bros., Inc.
NAME OF APPLICANT

116 Flanders Road, Suite 1200
Westborough, MA 01581
ADDRESS OF APPLICANT

Portions of 1282 and 1287 Main Street
PROJECT ADDRESS

ASSESSOR'S MAP# 12/13 PARCEL# 466/855

PROJECT DESCRIPTION: Confirm boundaries of jurisdictional Wetland Resource Areas.

September 19, 2023 - 6:30 p.m.
DATE AND TIME OF PUBLIC HEARING, AT TOWN HALL. (Subject to change. Please check website for updated information.)

The public hearing is advertised in *The Lynnfield Villager.*

Copies of the Notice of Intent & plans may be examined in the Conservation Commission Office on the lower level at Town Hall on Mondays-Thursdays from 9:00 A.M. – 4:00 P.M, however, an appointment made in advance is encouraged. Please call Emilie Cademartori, Director of Planning & Conservation at (781) 334-9495 to make an appointment, or for any other questions.

TOWN OF LYNNFIELD

ASSESORS OFFICE

55 Summer Street, Lynnfield, MA 01940
Phone: 774-334-9050

REQUEST FOR CERTIFIED ABUTTERS LIST

***CERTIFIED LIST WILL BE PROVIDED WITHIN TEN WORKING DAYS ***

PROPERTY LOCATION: 1282 Main Street

ASSESSORS MAP#: 0012 LOT #: 0466

FEE: $5.00 for first five pages, $1.00 after each consecutive page.

TYPE OF LIST REQUESTED:

✓ CONSERVATION COMISSION
Within 100 ft.

____BOARD OF APPEALS
Within 300 ft.

____PLANNING BOARD
Within 300 ft.

____BOARD OF HEALTH
Immediate abutter and directly across the street

REQUESTED BY: Sharon Sullivan DATE: 8/28/2023
LEC Environmental Consultants, Inc.

PHONE NUMBER: (781) 245-2500 EMAIL: ssullivan@lecenvironmental.com

----------Assessors Use Only----------

CERTIFIED BY: Theresa C. Malusso DATE: 8/29/23

OF PAGES:_____ DATE PAID: _____

100 feet Abutters List Report

Lynnfield, MA
August 29, 2023

Subject Property:

Parcel Number:	0012-0000-0466	Mailing Address:	SAGAMORE SPRING REALTY TRUST
CAMA Number:	0012-0000-0466		LUFF, LUFF & THOMPSON TRUST
Property Address:	1282 MAIN ST		1282 MAIN ST
			LYNNFIELD, MA 01940

Abutters:

Parcel Number:	0008-0000-0487	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0008-0000-0487		83 PHILLIPS ROAD
Property Address:	REEDY MEADOW		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-1279	Mailing Address:	LYNNFIELD TOWN OF CONSERVATION COMMISSION
CAMA Number:	0008-0000-1279		TOWN HALL
Property Address:	REAR MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-1488	Mailing Address:	TOWN OF LYNNFIELD
CAMA Number:	0008-0000-1488		55 SUMMER ST
Property Address:	1452 MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-1599	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0008-0000-1599		83 PHILLIPS ROAD
Property Address:	REAR MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-1727	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0008-0000-1727		83 PHILLIPS ROAD
Property Address:	MIDDLETON HILL		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-1822	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0008-0000-1822		83 PHILLIPS ROAD
Property Address:	MIDDLETON HILL		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-1842	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0008-0000-1842		83 PHILLIPS ROAD
Property Address:	MIDDLETON HILL		LYNNFIELD, MA 01940
Parcel Number:	0008-0000-2715	Mailing Address:	BROWN GERALD T/E BROWN BETSY T T/E
CAMA Number:	0008-0000-2715		1350 MAIN STREET
Property Address:	1350 MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0012-0000-0197	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0012-0000-0197		83 PHILLIPS ROAD
Property Address:	REAR MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0012-0000-0992	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0012-0000-0992		83 PHILLIPS ROAD
Property Address:	REAR NORRIS RD		LYNNFIELD, MA 01940

100 feet Abutters List Report

Lynnfield, MA
August 29, 2023

Parcel Number:	0012-0000-1864	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0012-0000-1864		83 PHILLIPS ROAD
Property Address:	MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0012-0000-1887	Mailing Address:	LYNNFIELD CTR WATER DIST
CAMA Number:	0012-0000-1887		83 PHILLIPS ROAD
Property Address:	MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0012-0000-1981	Mailing Address:	CHILDREN`S MAIN STREET TRUST
CAMA Number:	0012-0000-1981		DICESARE FERDINAND J, TR
Property Address:	1218 MAIN ST		1218 MAIN ST
			LYNNFIELD, MA 01940
Parcel Number:	0012-0000-2012	Mailing Address:	TUTON THOMAS, T/E TUTON JENNIFER, T/E
CAMA Number:	0012-0000-2012		1245 MAIN STREET
Property Address:	1245 MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0012-0000-2047	Mailing Address:	SWIMM DONALD, T/E SWIMM DIANE, T/E
CAMA Number:	0012-0000-2047		1219 MAIN STREET
Property Address:	1219 MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0012-0000-2714	Mailing Address:	MCNICHOL JOHN H
CAMA Number:	0012-0000-2714		1217 MAIN ST
Property Address:	1217 MAIN ST		LYNNFIELD, MA 01940
Parcel Number:	0013-0000-0855	Mailing Address:	SAGAMORE SPRING R E TR LUFF LUFF & THOMPSON TRS
CAMA Number:	0013-0000-0855		1282 MAIN ST
Property Address:	1287 MAIN ST		LYNNFIELD, MA 01940

TOWN OF LYNNFIELD

ASSESORS OFFICE

55 Summer Street, Lynnfield, MA 01940
Phone: 774-334-9050

REQUEST FOR CERTIFIED ABUTTERS LIST

***CERTIFIED LIST WILL BE PROVIDED WITHIN TEN WORKING DAYS ***

PROPERTY LOCATION: 1287 Main Street

ASSESSORS MAP#: 0013 LOT #: 0855

FEE: $5.00 for first five pages, $1.00 after each consecutive page.

TYPE OF LIST REQUESTED:

✓ CONSERVATION COMISSION
Within 100 ft.

____ BOARD OF APPEALS
Within 300 ft.

____ PLANNING BOARD
Within 300 ft.

____ BOARD OF HEALTH
Immediate abutter and directly across the street

REQUESTED BY: Sharon Sullivan DATE: 8/2/2023
LEC Environmental Consultants, Inc.

PHONE NUMBER: (781) 245-2500 EMAIL: ssullivan@lecenvironmental.com

----------Assessors Use Only----------

CERTIFIED BY: Theresa C. Galasso DATE: 8/3/23

OF PAGES:_____ DATE PAID: _____

100 feet Abutters List Report

Lynnfield, MA
August 03, 2023

Subject Property:

Parcel Number:	0013-0000-0855	Mailing Address:	SAGAMORE SPRING R E TR LUFF LUFF & THOMPSON TRS 1282 MAIN ST LYNNFIELD, MA 01940
CAMA Number:	0013-0000-0855		
Property Address:	1287 MAIN ST		

Abutters:

Parcel Number:	0008-0000-2083	Mailing Address:	PHILLIPS TINA R 1370 MAIN ST LYNNFIELD, MA 01940
CAMA Number:	0008-0000-2083		
Property Address:	1370 MAIN ST		
Parcel Number:	0008-0000-2087	Mailing Address:	MAIN STREET REALTY TRUST VARGA JOSEPH TR 1364 MAIN ST LYNNFIELD, MA 01940
CAMA Number:	0008-0000-2087		
Property Address:	1364 MAIN ST		
Parcel Number:	0008-0000-2186	Mailing Address:	RICCIO JESSICA H, J/T/R/S RICCIO JILLIAN K, J/T/R/S 1381 MAIN STREET LYNNFIELD, MA 01940
CAMA Number:	0008-0000-2186		
Property Address:	1381 MAIN ST		
Parcel Number:	0008-0000-2715	Mailing Address:	BROWN GERALD T/E BROWN BETSY T T/E 1350 MAIN STREET LYNNFIELD, MA 01940
CAMA Number:	0008-0000-2715		
Property Address:	1350 MAIN ST		
Parcel Number:	0008-0000-2824	Mailing Address:	SULLIVAN CAITLIN PORTE, T/E SULLIVAN TREVOR BENJAMIN, T/E 1377 MAIN STREET LYNNFIELD, MA 01940
CAMA Number:	0008-0000-2824		
Property Address:	1377 MAIN ST		
Parcel Number:	0009-0000-1546	Mailing Address:	TISHLER BRIAN, T/E GARNETTE RUPERTHA H, T/E 1 FRIENDSHIP LN LYNNFIELD, MA 01940
CAMA Number:	0009-0000-1546		
Property Address:	1 FRIENDSHIP LN		
Parcel Number:	0009-0000-1582	Mailing Address:	RILEY FAMILY REAL ESTATE TRUST RILEY JAMES E, TR 3 FRIENDSHIP LN LYNNFIELD, MA 01940
CAMA Number:	0009-0000-1582		
Property Address:	3 FRIENDSHIP LN		
Parcel Number:	0009-0000-1619	Mailing Address:	MATTUCHIO PATRICIA J MATTUCHIO FRANK 4 FRIENDSHIP LN LYNNFIELD, MA 01940
CAMA Number:	0009-0000-1619		
Property Address:	4 FRIENDSHIP LN		
Parcel Number:	0012-0000-0466	Mailing Address:	SAGAMORE SPRING REALTY TRUST LUFF, LUFF & THOMPSON TRUST 1282 MAIN ST LYNNFIELD, MA 01940
CAMA Number:	0012-0000-0466		
Property Address:	1282 MAIN ST		
Parcel Number:	0012-0000-2012	Mailing Address:	TUTON THOMAS, T/E TUTON JENNIFER, T/E 1245 MAIN STREET LYNNFIELD, MA 01940
CAMA Number:	0012-0000-2012		
Property Address:	1245 MAIN ST		

100 feet Abutters List Report

Lynnfield, MA
August 03, 2023

Parcel Number:	0012-0000-2047	Mailing Address:	SWIMM DONALD, T/E SWIMM DIANE, T/E 1219 MAIN STREET LYNNFIELD, MA 01940
CAMA Number:	0012-0000-2047		
Property Address:	1219 MAIN ST		
Parcel Number:	0012-0000-2714	Mailing Address:	MCNICHOL JOHN H 1217 MAIN ST LYNNFIELD, MA 01940
CAMA Number:	0012-0000-2714		
Property Address:	1217 MAIN ST		
Parcel Number:	0012-0000-2729	Mailing Address:	WALSH JOSHUA T/E LIAKOPOULOS-WALSH KATIE T/E 17 POCAHONTAS WAY LYNNFIELD, MA 01940
CAMA Number:	0012-0000-2729		
Property Address:	17 POCAHONTAS WAY		
Parcel Number:	0012-0000-2759	Mailing Address:	CIULLA SCOTT R, T/E CIULLA EMILY S, T/E 16 POCAHONTAS WAY LYNNFIELD, MA 01940
CAMA Number:	0012-0000-2759		
Property Address:	16 POCAHONTAS WAY		
Parcel Number:	0013-0000-2473	Mailing Address:	BRONSHVAYG RUSLAN, T/E BRONSHVAYG STEPHANIE, T/E 8 MOHAWK LANE LYNNFIELD, MA 01940
CAMA Number:	0013-0000-2473		
Property Address:	8 MOHAWK LN		
Parcel Number:	0013-0000-2482	Mailing Address:	JOSEPH T LEYDON FAMILY TRUST LEYDON JOSEPH T, TR 9 MOHAWK LANE LYNNFIELD, MA 01940
CAMA Number:	0013-0000-2482		
Property Address:	9 MOHAWK LN		
Parcel Number:	0016-0000-0773	Mailing Address:	POCAHONTAS GREEN BELT CO GREG BIRD TREASURER 17 SMITH FARM TRAIL LYNNFIELD, MA 01940
CAMA Number:	0016-0000-0773		
Property Address:	165 REAR LOWELL ST		
Parcel Number:	0017-0000-0156	Mailing Address:	PIAO XUEZHE, T/E LEE JUHEE, T/E 19 SMITH FARM TRAIL LYNNFIELD, MA 01940
CAMA Number:	0017-0000-0156		
Property Address:	19 SMITH FARM TRAIL		
Parcel Number:	0017-0000-0172	Mailing Address:	BIRD GREGORY, T/E BIRD JOYA, T/E 17 SMITH FARM TRAIL LYNNFIELD, MA 01940
CAMA Number:	0017-0000-0172		
Property Address:	17 SMITH FARM TRAIL		
Parcel Number:	0017-0000-0314	Mailing Address:	STELMAN JILL L 6 MOHAWK LANE LYNNFIELD, MA 01940
CAMA Number:	0017-0000-0314		
Property Address:	6 MOHAWK LN		
Parcel Number:	0017-0000-0921	Mailing Address:	VALLIS LINDA C 109 LOWELL ST LYNNFIELD, MA 01940
CAMA Number:	0017-0000-0921		
Property Address:	109 LOWELL ST		

City of Peabody

CERTIFICATION OF ABUTTERS

Click or tap to enter a date.

RECEIVED
AUG 10 2023
BY:

PROPERTY OWNER: Sagamore Spring RE Trust

PROPERTY LOCATION: Sagamore Springs Golf Course-LYNNFIELD - See attached map

MAP: N/A **LOT:** N/A

REQUESTED BY: Sharon Sullivan **PHONE:** (781) 245-2500

- ☐ **Chapter 138, Section 15A** – direct abutters & churches, synagogues, hospitals, & schools within 500'
- ☐ **Chapter 40A, Section 11** – abutter to abutter within 300'
  Special Permit ☐ **Variance** ☐ **Entertainment License** ☐ **Site Plan Review** ☐
- ☐ **Chapter 41, Section 81T** – Notice of Submission of Plan – direct abutters
- ☐ **Chapter 32, City of Peabody Code** – Wetlands & Rivers Protection Regulations – abutter to abutter within 300'
- ☒ **Chapter 131, Section 40** – Notice of Intent – all abutters within 100'
- ☐ **700 CMR 3.06**, State Permits for billboard signs – Notification within 500'

Please allow up to 5 business days for the completion of your request.

007- 079
- 080
- 081
- 082
- 083
- 084
- 085

003- 001
- 002
- 003

Teresa Read
Susan E. Ambrielle

BOARD OF ASSESSORS
CITY OF PEABODY

8/10/2023

CERTIFIED

Property ID	Owner	Owner 2	Owner Address	Owner Address 2
003-001	GIOVANNIELLO PATRICIA J & VANESSA		68 CATHERINE DR	PEABODY, MA 01960
003-002	SIMBECK NICOLE M & GORDON ERIK J		70 CATHERINE DR	PEABODY, MA 01960
003-003	JORGENSON ADAM M		72 CATHERINE DR	PEABODY, MA 01960
007-079	COHEE VALENTINO W & SARA A		54 CATHERINE DR	PEABODY, MA 01960
007-080	O'SHEA KEVIN J & NOREEN A		56 CATHERINE DR	PEABODY, MA 01960
007-081	WONG RICKY K Y & LILLIAN TRS	RICKY K Y WONG REVOCABLE TRUST	58 CATHERINE DR	PEABODY, MA 01960
007-082	MCNINE WILLIAM A & LISA A		60 CATHERINE DR	PEABODY, MA 01960
007-083	SINEWITZ BARRY C & DONNA S TRS	SINEWITZ FAMILY REALTY TRUST	62 CATHERINE DR	PEABODY, MA 01960
007-084	GILARDI DEBRA		64 CATHERINE DR	PEABODY, MA 01960
007-085	MEHILLI TEUTA & ARTUR	QOSHI VIOLA	66 CATHERINE DR	PEABODY, MA 01960

Teuta Read
Lesley George
Susan E. Antmellis
8/10/23

LEC

Abbreviated Notice of Resource Area Delineation

Portions of 1282 & 1287 Main Street

Map 12, Parcel 466 & Map 13, Parcel 855

Lynnfield, Massachusetts

August 31, 2023

1. Introduction

On behalf of the Applicant, Toll Bros., Inc., 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 portions of 1282 and 1287 Main Street in Lynnfield. Toll Brothers has 36.09 acres of the northern portion of 1287 Main Street under agreement for development and, as part of a development agreement with the Town of Lynnfield, intends to loop a water main from Main Street to Friendship Lane and southerly thorough the golf course to the Vallis Way Subdivision. The purpose of this ANRAD is to confirm wetland resource areas within the project site and for the water line extension. 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*); and the *Lynnfield Wetlands Protection Bylaw* (Chapter 240, the *Bylaw*) and its *Conservation Commission Regulations* (Chapter 320, the *Bylaw Regulations*). A plan titled *Plan of Land to Accompany ANRAD Application* dated August 23, 2023, prepared by ESE Consultants, Inc., (*ANRAD Plan, Appendix D*) depicts the delineated boundaries of Bordering and Isolated Vegetated Wetlands (BVW and IVW), Bank to two intermittent streams, the Bank-Mean Annual High Water (MAHW) Line of Wills Brook at Main Street, and its associated Riverfront Area. These resource areas were delineated in June, July, and August of 2023.

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 36.09-acre site is located in the northeastern portion of the Sagamore Springs Golf Club, west of the Peabody/Lynnfield municipal boundary, south of Friendship Lane, east of Main Street, and north of the golf course, within the northeastern portion of Lynnfield (Appendix A, Figures 1 and 2). Residential development and single-family dwellings associated with Catherine Drive in Peabody, and Friendship Lane and Main Street in Lynnfield are located east, north, and northwest of the site, respectively. The green for Hole #15 and tee for #16 are located to the west (across Main Street) while the driving

range, portions of Hole #1, the green for Hole #2, and the tee for Hole #3 are located to the south. The northern portion of the site is undeveloped and wooded, containing forested uplands and wetlands. Forested wetlands occur within the northern portion of the site and extend off-site onto the adjacent property, while one isolated wetland occurs within the northwestern portion of the site.

Wills Brook flows northwesterly through the southeastern portion of the golf course and beneath Main Street. East of Main Street and south of a Pond, the Brook is depicted as intermittent on the USGS map (Appendix A, Figure 1). The stream then becomes perennial as it flows westerly from the pond and under Main Street.

Forested uplands, fairways, tees, greens, and roughs associated with the golf course comprise the remainder of the site and include areas with undulating topography and upland islands. Vegetation within the undeveloped forested uplands in the northern portions of the property includes a canopy dominated by white pine (*Pinus strobus*) and red oak (*Quercus rubra*), with scattered clusters of ironwood (*Carpinus caroliniana*), and basswood (*Tillia americana*), with individuals of eastern cottonwood (*Populus deltoides*), American elm (*Ulmus americana*), white ash (*Fraxinus americana*), chestnut oak (*Quercus montana*), sassafrass (*Sassafras albidum*), red maple (*Acer rubrum*), and black cherry (*Prunus serotina*). The understory contains clusters of saplings from the canopy, multiflora rose (*Rosa multiflora*), burning bush (*Euonymus alatus*), barberry (*Barberis thunbergii*), Japanese knotweed (*Reynoutria japonica*), and sweet pepperbush (*Clethra alnifolia*) with individuals of huckleberry (*Gaylussacia* sp.), and honeysuckle (*Lonicera* sp.). The groundcover is dominated by patches of goldenrod (*Solidago* sp.), Virginia creeper (*Parthenocissus quinquefolia*), bracken fern (*Pteridium aquilinum*), partridge berry (*Mitchella repens*), lowbush blueberry (*Vaccinium angustifolium*), hairy bittercress (*Cardamine hirsuta*), and common greenbrier (*Smilax rotundifolia*), with scattered clusters of poison ivy (*Toxicodendron radicans*), miscellaneous sedges (*Carex* spp.), and seedlings from the canopy. Entanglements of oriental bittersweet (*Celastrus orbiculatus*) and grape vine (*Vitis* sp.) are present in portions of the forested uplands.

LEC inspected soil conditions throughout the uplands adjacent to the BVW boundary and observed a range of soil conditions. As a representative example, LEC observed a 9-inch thick, fine sandy loam topsoil (A horizon) with a soil matrix color of 10YR 2/2. The A horizon is underlain by a 6-inch thick weathered, fine sandy loam subsoil (B_{w1} horizon) with a soil matrix color of 10YR 4/4. The subsoil is underlain by a 5+ inch thick fine sandy loam subsoil (B_{w2} horizon) with a soil matrix color of 10YR 4/6. 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 or 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*).

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 Habitat of Rare Wildlife or Priority Habitat of Rare Species exist on the site. No mapped Certified Vernal Pools (CVP) or Potential Vernal Pools (PVP) occur within proximity of the site (Appendix A, Figure 2). LEC performed a vernal pool survey in Spring of 2022 and documented two onsite confined basin depressions that had evidence of breeding by vernal pool amphibians, but did not meet the required biological and/or physical criteria for certification, as described below.

2.2 Floodplain Designation

According to the July 3, 2012 *Federal Emergency Management Agency* (FEMA) *Flood Insurance Rate Map* (FIRM) for Essex County, Massachusetts (Community Panel Number: 25009C0391F), 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 site evaluations in June, July, and August of 2023 to determine the extent of Wetland Resource Areas located on or immediately adjacent to the site and to delineate the jurisdictional resource area boundaries.

The extent of Wetland Resource Areas was determined by observing existing plant communities, 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 A1 through A234; E1 through E9; F1 through F20; and G1 through G11. In select areas where no BVW was observed, the boundary coincides with the Bank of the intermittent stream. Massachusetts Department of Environmental Protection (MassDEP) BVW Field Data Forms for a representative transect are attached to support the wetland boundary determination (Appendix B).

One IVW was also demarcated in the field with sequentially numbered, blaze orange surveyors' tape embossed with the text "LEC Resource Area Boundary" and numbered B1 through B15.

The Bank lines were demarcated in the field with sequentially numbered blaze blue surveyors' tape and pin flags and are numbered K1 through K7 on the edge of a Pond south of the Golf Course parking lot, and J1 through J26 and K1 through K22 along portions of two intermittent streams in the northern portions of the site. The Bank-MAHW Line was delineated with sequentially numbered, blue flags numbered H1 through H4 on the eastern side of Main Street, and I1 through I6 on the western side.

LEC flagging stations were surveyed by ESE Consultants, Inc. and are depicted on the *ANRAD Plan* (Appendix D).

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, IVW, Bank to intermittent stream, Bank-Mean Annual High Water (MAHW) Line to Wills Brook, and

its associated Riverfront Area. A description of these Wetland Resource Areas 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*. BVW is not defined in the *Bylaw* or *Bylaw Regulations*, so the aforementioned definition prevails.

Vegetated wetlands jurisdictional as BVW under the *Act* and the *Bylaw* occur adjacent to an intermittent stream system within the northern portion of the site (A and F-series), and west of Main Street (G-series).

Series A, F, and G are part of a contiguous forested wetland system characterized by undulating topography. The E-series BVW is connected to a mostly offsite wetland system to the north.

Vegetation within the forested wetland includes a moderately dense canopy dominated by red maple, and American elm, with clusters of white oak (*Quercus alba*), yellow birch (*Betula alleghaniensis*), ironwood, and ash, with individuals of black birch (*Betula lenta*), northern red oak, and chestnut oak. The understory is dominated by sweet pepperbush (*Clethra alnifolia*), and spicebush (*Lindera benzoin*) in the central and eastern portions of the site, while the understory in the western portion of the BVW is dominated by sapling red maple. Clusters of highbush blueberry (*Vaccinium corymbossum*), individuals of glossy buckthorn (*Frangula alnus*), and maple leaf viburnum (*Viburnum acerifolium*) are present throughout the wetland. The groundcover is dominated by cinnamon fern (*Osmundastrum cinnamomeum*), wood fern (*Dryopteris* sp.), jewelweed (*Impatiens capensis*), and New York fern (*Thelypteris noveboracensis*) with clusters of solomon's seal (*Polygonatum* sp.), sensitive fern (*Onoclea sensibilis*), aster (*Asteraceae* sp.), skunk cabbage (*Symplocarpus foetidus*), wrinkle leaf goldenrod (*Solidago rugosa*), various grasses (*Poaceae* spp), poison ivy, and huckleberry (*Gaylussacia* sp.). Greenbrier, oriental bittersweet, and poison ivy vines are present throughout the BVW.

LEC inspected soil conditions within the wetland and generally observed an 8-inch thick, organic topsoil (O horizon), with a soil matrix color of 10YR 2/1. The topsoil is underlain by a 10+-inch thick, fine sandy loam depleted subsoil (B_g horizon) with a soil matrix color of 10YR 4/2. Organic streaking and redox concentrations of 10YR 5/4 were

observed through the subsoil horizon. 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.

4.2 Isolated Vegetated Wetlands (IVW)

According to the *Bylaw* [Section 240-8], Resource Area- *Includes any freshwater wetlands; marshes; wet meadows; bogs; swamps; vernal pools; banks; reservoirs; lakes; ponds of defined size; rivers; streams; creeks; beaches; estuaries; lands under water bodies; lands subject to flooding or inundation by groundwater or surface water; lands subject to flooding; and lands abutting any of the aforesaid resource areas*.

According to Section 240-2, *Said Resource areas shall be protected whether or not they border surface waters.*

The B-series IVW is located in the golf driving range in the western portion of the site, south of the forested wetland, and is characterized as a scrub-shrub and wet meadow wetland. The IVW occurs within a slight topographic depression on the edge of the golf course driving range. Vegetation is dominated by wrinkle leaf goldenrod, sedge (*Carex* sp.), and New York fern, with patches of milkweed (*Asclepias* sp.), and various grasses. Entanglements of bittersweet occur in select areas. The IVW contains a soil profile similar to the forested wetland described above.

4.3 Intermittent Stream

The current USGS map does not show any perennial or intermittent streams located within the northern portions of the site; however, LEC observed two separate stream systems that originate from a culvert west of Catherine Drive in Peabody that flow westerly down the sloped hillside toward Main Street. According to the *Act Regulations* [310 CMR 10.58(2)(a)(1)(b and c)], b. *A river or stream shown as intermittent or not shown on the current USGS map or more recent map provided by the Department, that has a watershed size greater than or equal to one square mile, is perennial. c. A stream shown as intermittent or not shown on the current USGS map or more recent map provided by the Department, that has a watershed size less than one square mile, is intermittent unless: i. The stream has a watershed size of at least ½ (0.50) square mile and has a predicted flow rate greater than or equal to 0.01 cubic feet per second at the 99% flow duration using the USGS Stream Stats method. The issuing authority shall find such streams to be perennial…*

To confirm the intermittent status of observed onsite streams, LEC utilized the USGS Water Resources Web Application StreamStats, to calculate the contributing watershed area and 99% flow duration from a point located west of Main Street. The StreamStats analysis calculated a 0.05 square mile watershed with an "undefined" 99% flow duration (**Appendix C**) which does not meet the criteria for a perennial stream status. As such, LEC confirms the intermittent status of the two streams in the northern portions of the property. LEC delineated the Bank in select portions of these two streams, represented by the J1 through J23 and K1 through K22 series, as described below.

4.4 Bank to Intermittent Stream and Pond

Bank is defined at 310 CMR 10.54(2)(a) as *the portion of land surface which normally abuts and confines a water body. The upper boundary of a bank is the first observable break in the slope or the mean annual flood level, whichever is lower. The lower boundary of a bank is the mean annual low flow level.*

According to *the Bylaw* [Section 240-8], Bank *Includes the land area which normally abuts and confines a water body; the lower boundary being the mean annual low flow level, and the upper boundary being the first observable break in the slope or the mean annual flood level, whichever is higher*.

As stated above, the A-series BVW includes sections of the Bank boundary associated with the northern intermittent stream. The western section of the stream adjacent to Main Street flows in a westerly direction beneath Main Street via a culvert. The stream in this section is situated at the bottom of a steep embankment with channel depths measuring 4 to 24 inches. The Bank substrate is comprised of sand, gravel, and stones.

The J1 through J23 and K1 through K22 Bank boundaries are associated with two separate on-site intermittent streams as described above, where Bank boundaries were delineated separately from the upgradient BVW boundary. The J series Bank channel (northerly of the two intermittent streams) measures roughly 3 to 11 feet in width and is contained within 4-12-inch-high embankments. LEC observed water flowing in a westerly direction, stain lines, scour, and directionally matted vegetation and wrack deposition. The K-series Bank channel (the southerly of the two streams) measures roughly 3 to 9 feet in width. No flow was observed within the K-series at the time of delineation.

The K1 through K7 Bank boundary is associated with a Pond, east of Main Street and south of the golf course parking lot. The Pond is situated within a topographic depression, and the boundary generally follows a break in topography.

4.5 Bank-Mean Annual High Water Line

According to the *Act Regulations* [310 CMR 10.58(2)(a)(2)], Mean Annual High Water (MAHW) is defined as *the line that is apparent from visible markings or changes in the character of soils or vegetation due to the prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Field indicators of bankfull conditions shall be used to determine the mean annual high-water line. Bankfull field indicators include but are not limited to: changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts…*

According to the most recent USGS map (Reading, MA 2021), Wills Brook becomes perennial at the outlet of the Pond east of Main Street and south of the golf course parking lot. LEC demarcated the Bank-MAHW Line with sequentially numbered, blue flags numbered H1 through H4 on the eastern side of Main Street, and I1 through I6 on the western side.

4.6 Riverfront Area

According to the *Act Regulations*, [310 CMR 10.58 2(a)], Riverfront Area is defined as *the area of land between a river's mean annual high-water line and a parallel line measured horizontally 200 feet away.* Riverfront Area is not defined in the *Bylaw* so the aforementioned definition prevails.

Riverfront Area extends 200 feet horizontally from the Bank-MAHW line of Wills Brook as described above, and includes portions of Main Street, the adjacent road shoulder, and the golf course.

5. Vernal Pool Survey

In the spring of 2022, LEC conducted a Vernal Pool Study to evaluate whether any on-site Wetland Resource Areas may function to provide *essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species* according to the Natural Heritage and Endangered Species Program's (NHESP) *Guidelines for Certification of Vernal Pool Habitat* (March 2009), hereafter referred to as the "*NHESP Guidelines*" and/or the *Bylaw* and *Bylaw Regulations*.

According to NHESP's *Guidelines*, *Vernal Pools are ephemeral bodies of freshwater that, in most years, hold water for a minimum of two continuous months and do not contain a permanent flowing outlet (physical criteria), in addition to providing important wildlife habitat for specific animal species (Obligate or Facultative Vernal Pool species) and generally lacking a reproducing fish population (biological criteria).*

The WPA Regulations (310 CMR 10.04) define "Vernal Pool Habitat" as *confined basin depressions which, at least in most years, hold water for a minimum of two continuous months during the spring and/or summer, and which are free of adult fish populations, as well as the area within 100 feet of the mean annual boundaries of such depressions, to the extent that such habitat is within an Area Subject to Protection under M.G.L. c. 131, Section 40 as specified in 310 CMR 10.02(1). These areas are essential breeding habitat, and provide other extremely important wildlife habitat functions during non breeding season as well, for a variety of amphibian species such as wood frog (*Rana sylvatica*) and the spotted salamander (*Ambystoma maculatum*), and are important habitat for other wildlife species.*

The Bylaw defines Vernal Pool as *Includes, in addition to scientific definitions found in the regulations under the Wetlands Protection Act, any confined basin or depression not occurring in existing lawns, gardens, landscaped areas or driveways which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, contains at least 200 cubic feet of water at some time during most years, is free of adult predatory fish populations, and provides essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species, regardless of whether the site has been certified by the Massachusetts Department of Fish and Game. The boundary of the resource area for vernal pools shall be 100 feet outward from the mean annual highwater line defining the depression, but shall not include existing lawns, gardens or landscaped or developed areas.* [§240-8]
According to the *Bylaw Regulations*, vernal pools are defined as *Temporary bodies of fresh water which provide critical habitat for a number of vertebrate and invertebrate wildlife species.* [§320-15].

LEC evaluated two confined basin depressions within the project area on March 21, March 30, April 8, and May 18 of 2022 to determine if any met the criteria for certification in accordance with the *NHESP Guidelines*. The survey was initiated at the optimal time of year, as confirmed by regular observations of the status of amphibian breeding activity in eastern Massachusetts towns beginning in mid-March. The survey

was conducted during sunny, calm weather and aided with polarized sunglasses so that visibility into the pools was optimal.

The *NHESP Guidelines* require that both biological and physical criteria be met if a wetland is to be certified. Under the "Obligate Species Method," the biological criteria requirement is for certain "obligate" amphibian species be documented breeding (usually by the presence of egg masses), or for fairy shrimp be present. Note that a minimum of five egg masses of one or more obligate species are required for certification. The physical criteria requirement is evidence that a pool lacks a permanently flowing outlet (documented by a photo of standing water). If a pool cannot be successfully certified using the Obligate Species Method, it can also be certified by the Facultative Species Method, whereby one must document that two or more facultative species breeding, the pool lacks a permanent outlet, and document that there is no established, reproducing fish population.

LEC observed greater than 5 egg masses of "obligate" amphibian species within one of the surveyed confined basins and a single egg mass in the other, smaller area.

A total of 4 spotted salamander and 2 wood frog egg masses were observed (March 30 and April 8) within the larger depression east/northeast of BVW flag A-123 and southeast of BVW flag A-95. However, the depression was completely dry on May 18, and thus did not hold water for 60 days during the breeding season (roughly March 21 - May 21). During the March 30 evaluation of the smaller depression, proximate to BVW flag A-79, LEC observed evidence of breeding by spotted salamanders (spermatophores and a male salamander). During the April 8 survey, only one spotted salamander egg mass was present. Based on the data collected in 2022, neither of these areas meet the NHESP criteria for certification.

While delineating the BVW on June 12, 2023, LEC observed shallow water depths in the larger depression, but did not observe any wood frog tadpoles, which should have been easily visible if wood frogs had successfully bred during 2023. As a result, LEC does not believe either depression meets the criteria for certification as a Vernal Pool nor do they provide "essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species" as protectable under the *Bylaw*.

It should be noted that Sagamore Spring Realty Trust applied for an ANRAD on the entire property in February 2006. The ANRAD underwent an extensive peer review by Wetlands Preservation Inc. (WPI) during the spring and summer of 2006, and an ORAD was issued by the Commission on September 21, 2006. The approved ANRAD plans do

not show any vernal pools, nor does the peer review report provided by WPI contain any mention of vernal pools in the areas included in this ANRAD application.

6. Summary

On behalf of the Applicant, Toll Bros., Inc., LEC is filing the enclosed ANRAD Application to confirm the boundaries of jurisdictional Wetland Resource Areas associated with portion of 1282 and 1287 Main Street in Lynnfield. The ANRAD Application and associated wetland boundary determinations have been completed in accordance with the *Act* and its implementing *Act Regulations*, and the *Bylaw* and *Bylaw Regulations*. The delineated wetland boundaries are depicted on the included *ANRAD Plan*. StreamStats output and MassDEP Field Delineation Forms are included herein to support the wetland delineation. 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.

Lynnfield Wetlands Protection Bylaw (Chapter 240). The *Conservation Commission Regulations* (Chapter 320)

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

MA Division of Fisheries & Wildlife, Natural Heritage & Endangered Species Program. *Guidelines for the Certification of Vernal Pool Habitat* (March 2009).

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, Essex County, Massachusetts. July 3, 2012 (Community Panel Number 25009C0391F).

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

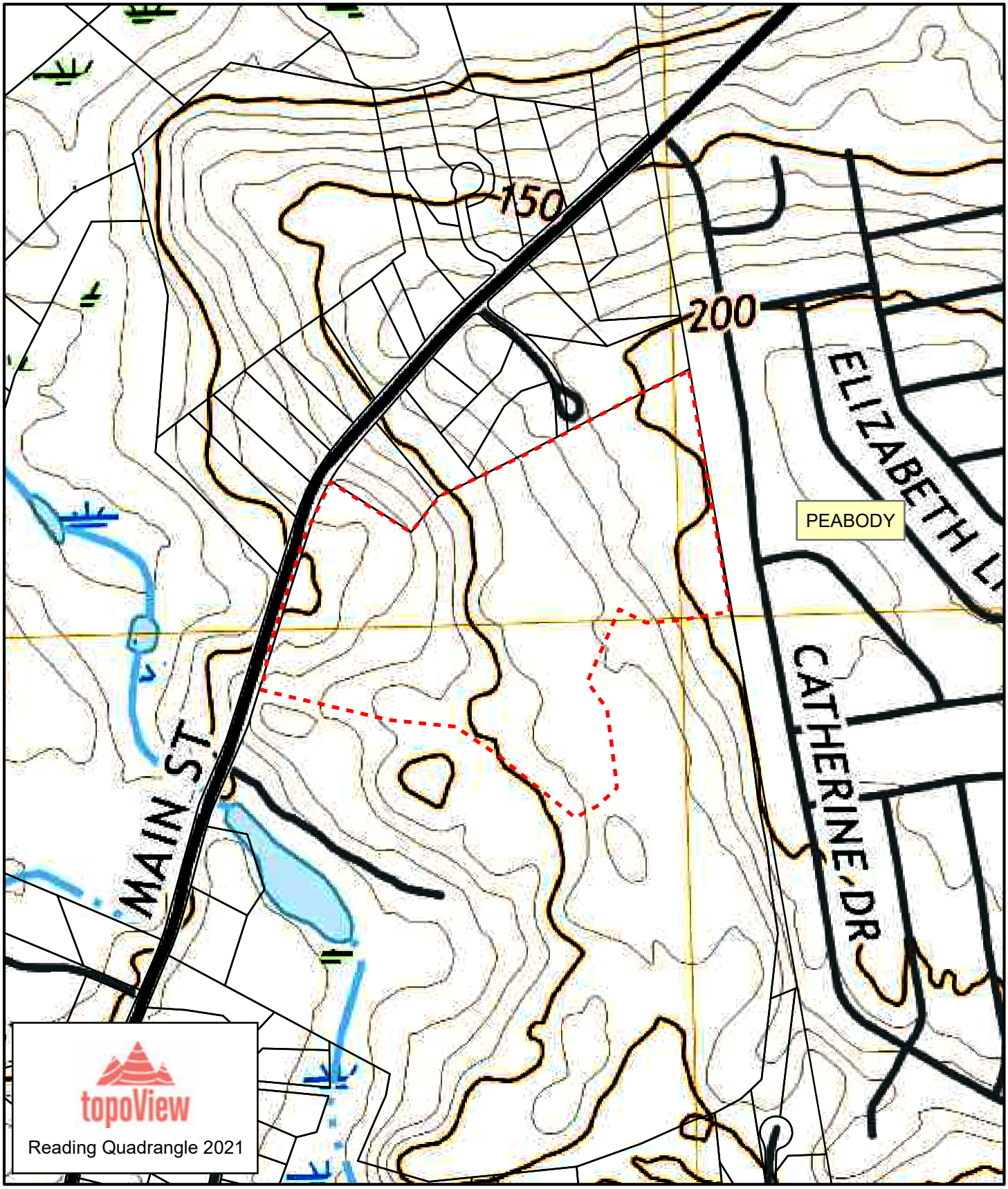
Appendix A

Locus Maps

Figure 1: USGS Topographic Map

Figure 2: MassGIS Orthophoto & NHESP Map

Figure 3: FEMA FIRMette



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

Figure 1: USGS Topographic Map
1282 and 1287 Main Street
Lynnfield, MA

August 30, 2023

N

0 250 500 Feet

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

Figure 2: MassGIS Orthophoto & NHESP Map
1282 and 1287 Main Street
Lynnfield, MA

August 30, 2023

N

0 200 400 Feet

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

Figure 3: MassGIS Orthophoto & FEMA Datalayer
1282 and 1287 Main Street
Lynnfield, MA

August 30, 2023

N

0 200 400 Feet

Appendix B

MassDEP Bordering Vegetated Wetland Field Data Forms

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: 1287 Main Street Sagamore Springs City/Town: Lynnfield Sampling Date: 7/24/23

Applicant/Owner: Toll Brothers, Inc. Sampling Point or Zone: NONWET-1

Investigator(s): LEC Environmental Consultants; Nicole Ferrara Latitude / Longitude:

Soil Map Unit Name: Canton Fine Sandy Loam 0-8 percent slopes, very stony NWI or DEP Classification: None

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 dug approximately 15' upgradient of BVW flag A146.
- Observed soil profile is consistent with the NRCS Soil Series Description

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. northern red oak	Quercus rubra	FACU	38.0	Yes	No
2. eastern white pine	Pinus strobus	FACU	20.5	Yes	No
3. American elm	Ulmus americana	FACW	20.5	Yes	Yes
4. red maple	Acer rubrum	FAC	10.5	No	Yes
5.					
6.					
7.					
8.					
9.					

89.5 = 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	10.5	Yes	No
2. red maple	Acer rubrum	FAC	10.5	Yes	Yes
3.					
4.					
5.					
6.					
7.					
8.					
9.					

21.0 = Total Cover

Herb Stratum Plot size 5'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. partridge berry	Mitchella repens	FACU	10.5	Yes	No
2. hayscented fern	Dennstaedtia punctilobula	UPL	10.5	Yes	No
3. white pine sapling	Pinus strobus	FACU	10.5	Yes	No
4. cinnamon fern	Osmundastrum Cinnamomeum	FACW	3.0	No	Yes
5. lowbush blueberry	Vaccinium angustifolium	FACU	3.0	No	No
6.					
7.					
8.					
9.					
10.					
11.					
12.					

37.5 = 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?
	9	2	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 %

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]		
0-9	10YR 2/2	100.00					FSL	A Horizon
9-15	10YR 4/4	100.00					FSL	Bw1 Horizon
15-22	10YR 4/6	100.00					FSL with gravel	Bw2 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: 1287 Main Street Sagamore Springs City/Town: Lynnfield Sampling Date: 7/24/23

Applicant/Owner: Toll Brothers Inc. Sampling Point or Zone: WET-1

Investigator(s): LEC Environmental Consultants; Nicole Ferrara Latitude / Longitude: 42.650992, -71.036060

Soil Map Unit Name: Ridgebury Fine Sandy Loam 3-8 percent slopes, extremely stony 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 dug approximately 15' downgradient of BVW flag A146.
- Observed soil profile is consistent with the NRCS Soil Series Description

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) 4.00

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	63.0	Yes	Yes
2. red oak	Quercus rubra	FACU	10.5	No	No
3. white ash	Fraxinus americana	FACU	10.5	No	No
4.					
5.					
6.					
7.					
8.					
9.					

84.0 = Total Cover

Shrub/Sapling Stratum Plot size 15'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. sweet pepperbush	Clethra alnifolia	FAC	85.5	Yes	Yes
2. red maple	Acer rubrum	FAC	10.5	No	Yes
3.					
4.					
5.					
6.					
7.					
8.					
9.					

96.0 = Total Cover

Herb Stratum Plot size 5'

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. cinnamon fern	Osmundastrum cinnamomeum	FACW	38.0	Yes	Yes
2. sweet pepperbush	Clethra alnifolia	FAC	38.0	Yes	Yes
3. american elm seedlings	Ulmus americana	FACW	3.0	No	Yes
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

79.0 = 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 ☐

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]		
0-8	10YR 2/1	100.00					Mucky Loam	O Horizon
8-18	10YR 4/2	95.00	10YR 5/4	5.00	D	M	FSL	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: Rock Depth (inches): 18.00

Remarks:

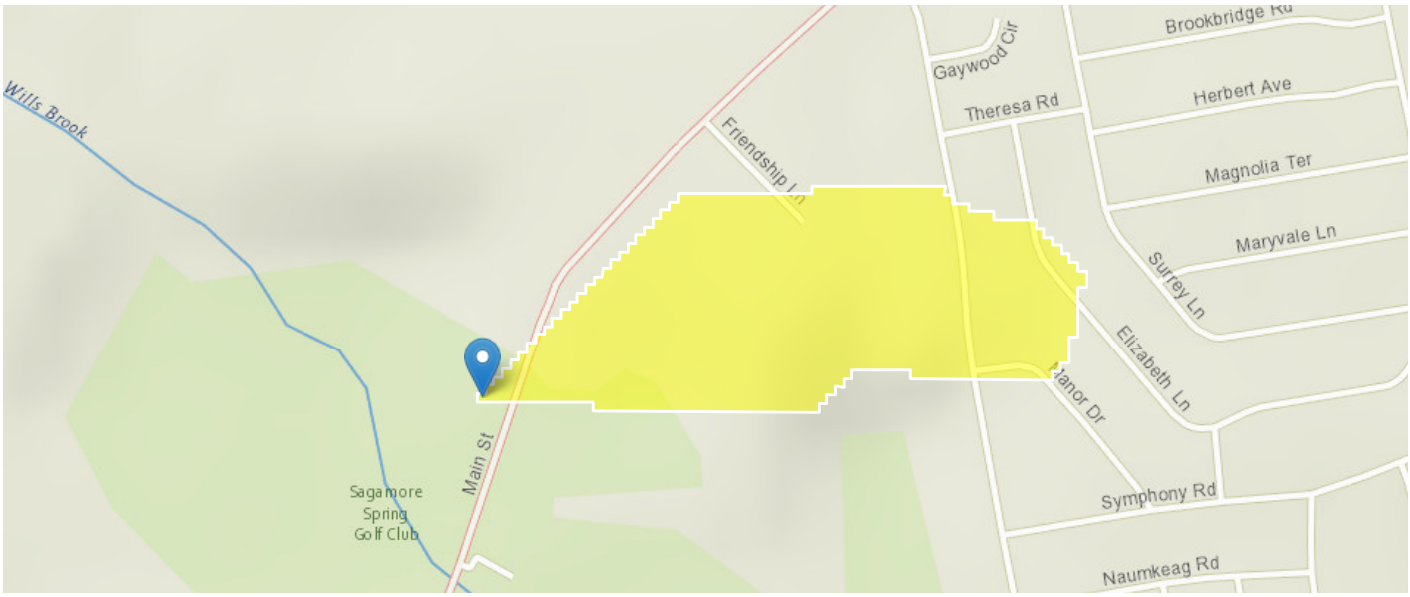
Hydric Soils criterion met? **Yes** ☑ **No** ☐

Appendix C

StreamStats Analysis

StreamStats Report - 1287 Main Street, Lynnfield

Region ID: MA
Workspace ID: MA20230825144414450000
Clicked Point (Latitude, Longitude): 42.56067, -71.04043
Time: 2023-08-25 10:44:40 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLDEM250	Mean basin slope computed from 1:250K DEM	4.01	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	-100000	square mile per mile
DRNAREA	Area that drains to a point on a stream	0.0537	square miles
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

Flow-Duration Statistics

Flow-Duration Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0537	square miles	1.61	149
DRFTPERSTR	Stratified Drift per Stream Length	-100000	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1
BSLDEM250	Mean Basin Slope from 250K DEM	4.01	percent	0.32	24.6

Flow-Duration Statistics Disclaimers [Statewide Low Flow WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors. Equation D60 in GC320 could not be calulated due to undefined basin characteristic. Equation D70 in GC320 could not be calulated due to undefined basin characteristic. Equation D75 in GC320 could not be calulated due to undefined basin characteristic. Equation D80 in GC320 could not be

calulated due to undefined basin characteristic. Equation D85 in GC320 could not be calulated due to undefined basin characteristic. Equation D90 in GC320 could not be calulated due to undefined basin characteristic. Equation D95 in GC320 could not be calulated due to undefined basin characteristic. Equation D98 in GC320 could not be calulated due to undefined basin characteristic. Equation D99 in GC320 could not be calulated due to undefined basin characteristic.

Flow-Duration Statistics Flow Report [Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit
50 Percent Duration	0.0484	ft^3/s
60 Percent Duration	undefined	ft^3/s
70 Percent Duration	undefined	ft^3/s
75 Percent Duration	undefined	ft^3/s
80 Percent Duration	undefined	ft^3/s
85 Percent Duration	undefined	ft^3/s
90 Percent Duration	undefined	ft^3/s
95 Percent Duration	undefined	ft^3/s
98 Percent Duration	undefined	ft^3/s
99 Percent Duration	undefined	ft^3/s

Flow-Duration Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

Application Version: 4.16.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Appendix D

Plan of Land to Accompany ANRAD Application,
prepared by ESE Consultants, Inc., dated August 23, 2023

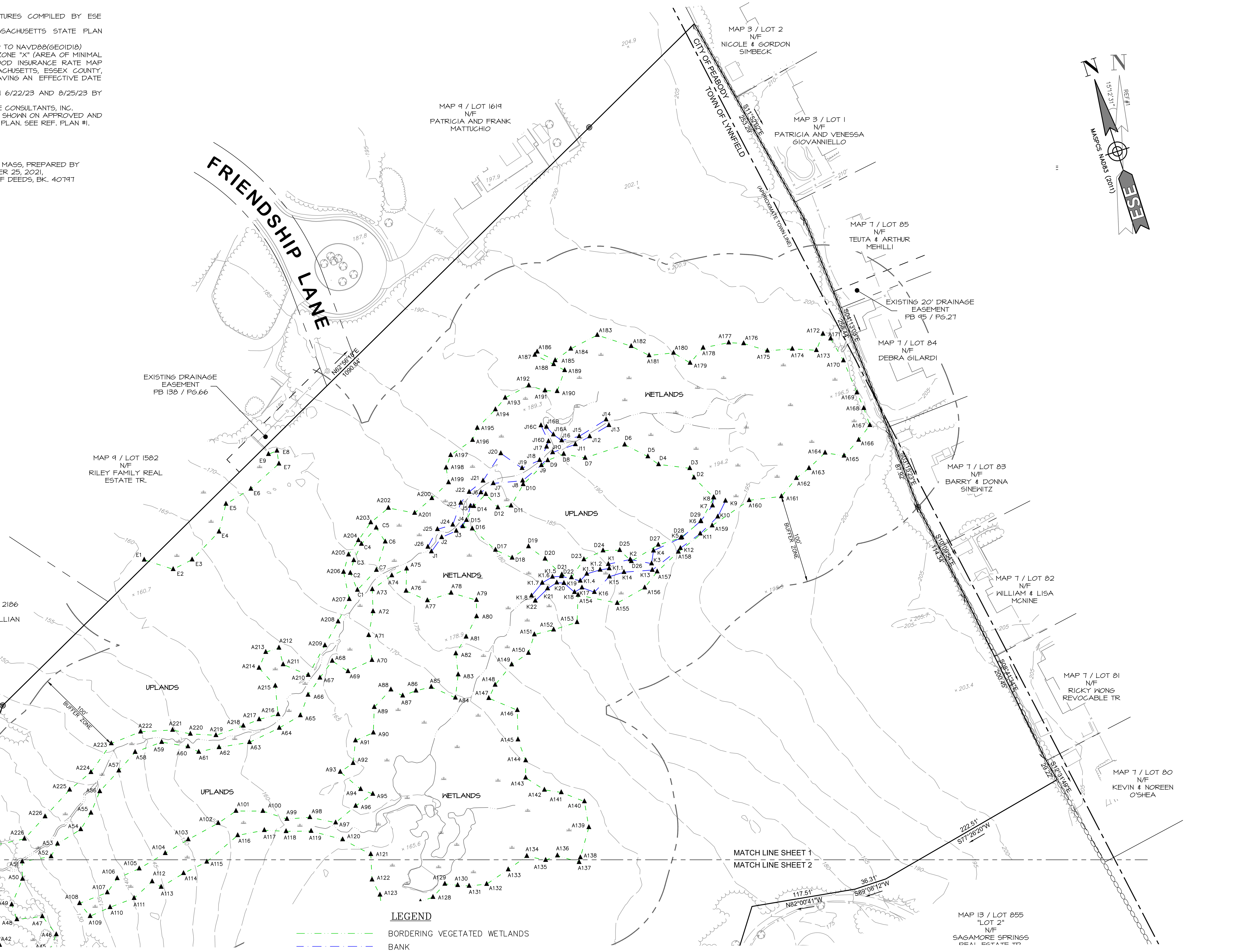
NOTES:

1. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY ESE CONSULTANTS DATED JUNE 6, 2023.
2. THE HORIZONTAL DATUM IS ON MASSACHUSETTS STATE PLAN COORDINATE SYSTEM NAD83 (2011).
3. BASE OF ELEVATIONS ARE REFERENCED TO NAVD88(GEOID18)
4. THE PROJECT SITE IS LOCATED WITHIN ZONE "X" (AREA OF MINIMAL FLOODING) AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP FOR THE TOWN OF LYNNFIELD, MASSACHUSETTS, ESSEX COUNTY, COMMUNITY PANEL NO. 25009C0391F, HAVING AN EFFECTIVE DATE ON 7/3/2012.
5. WETLAND FLAGS WERE DELINEATED ON 6/22/23 AND 8/25/23 BY LEC ENVIRONMENTAL CONSULTANTS, INC.
6. WETLAND FLAGS WERE LOCATED BY ESE CONSULTANTS, INC.
7. LOCUS PARCEL IS KNOWN AS "LOT 1" AS SHOWN ON APPROVED AND RECORDED "APPROVAL NOT REQUIRED" PLAN. SEE REF. PLAN #1.

PLAN REFERENCES:

1. PLAN OF LAND, MAIN STREET LYNNFIELD MASS. PREPARED BY HAYES ENGINEERING, INC. DATED OCTOBER 25, 2021, RECORDED IN SOUTH ESSEX REGISTRY OF DEEDS, BK. 40797 PG 69.

PARCEL DATA
PORTION OF MAP 13 LOT 855 N/F SAGAMORE SPRINGS REAL ESTATE TR. DEED BK 4078/PG. 442 "LOT 1" AREA: 1,567,217 S.F.± OR 36.093 ACRES



LEGEND

- BORDERING VEGETATED WETLANDS
- BANK
- 100' ADJACENT UPLAND RESOURCE AREA
- ▲B10 WETLAND FLAG

GRAPHIC SCALE 1 inch = 50 ft.

SHAWN L. CRAWFORD No. 48655 — COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL LAND SURVEYOR

ESE CONSULTANTS

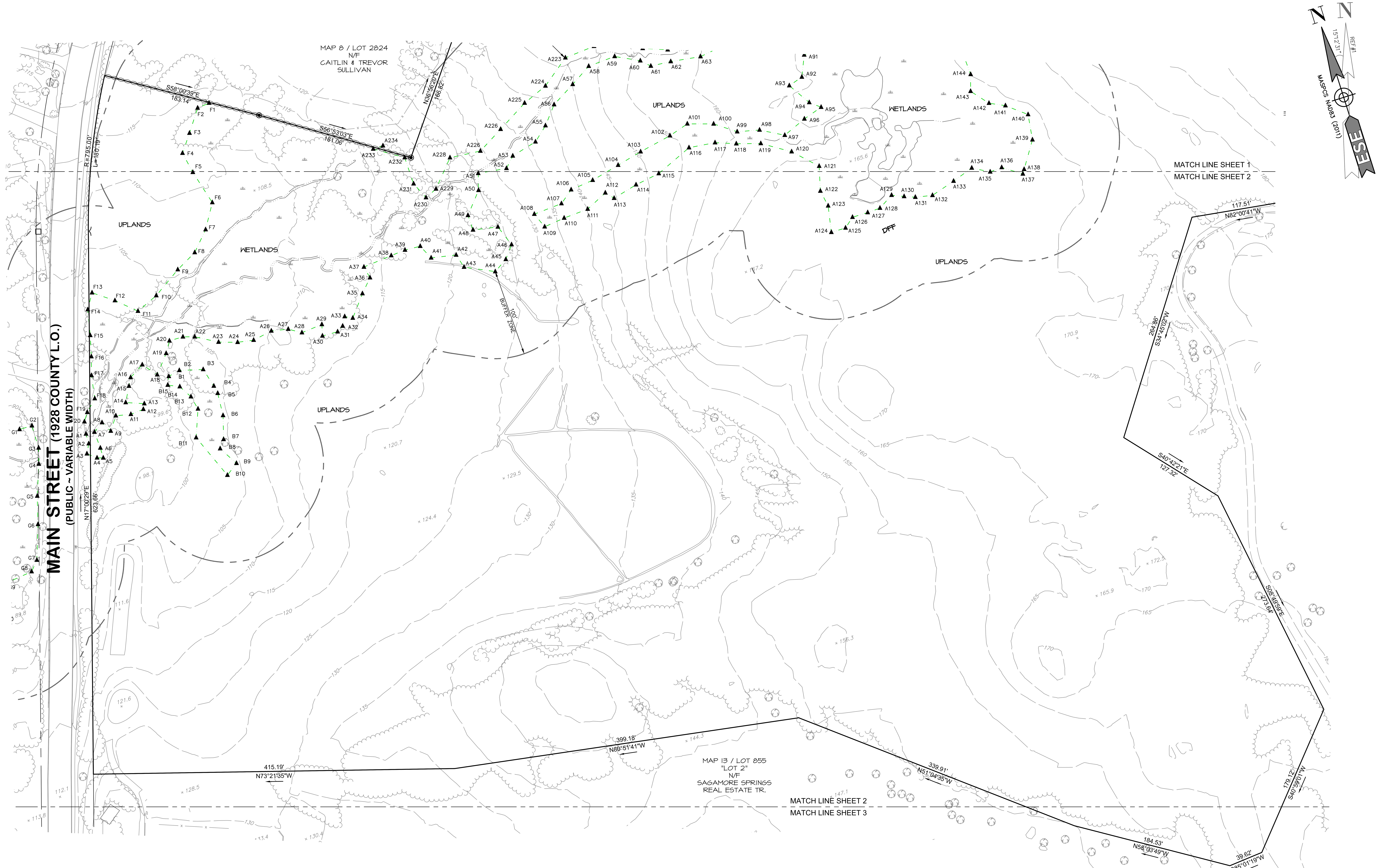
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
116 Flanders Road • Suite 1200 • Westborough, MA 01581
T: 508-616-8129

REV.	DATE	DESCRIPTION	DRAWN

PLAN OF LAND
TO ACCOMPANY
ANRAD APPLICATION
PREPARED FOR
TOLL BROTHERS INC
IN
LYNNFIELD, MASSACHUSETTS

DATE: 8/23/23	SCALE: 1"=50'
CHECKED BY:	DRAWN: SLC
JOB NO.: 8750	FILE NAME: 8750-WS
REF. NO.:	
SHEET NO.: 1	OF 3



LEGEND

BORDERING VEGETATED WETLANDS

BANK

100' ADJACENT UPLAND RESOURCE AREA

B10 WETLAND FLAG

GRAPHIC SCALE

50 0 25 50 FEET 100 200

1 inch = 50 ft.

SHAWN L. CRAWFORD No. 48655

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REV.	DATE	DESCRIPTION	DRAWN

PLAN OF LAND
TO ACCOMPANY
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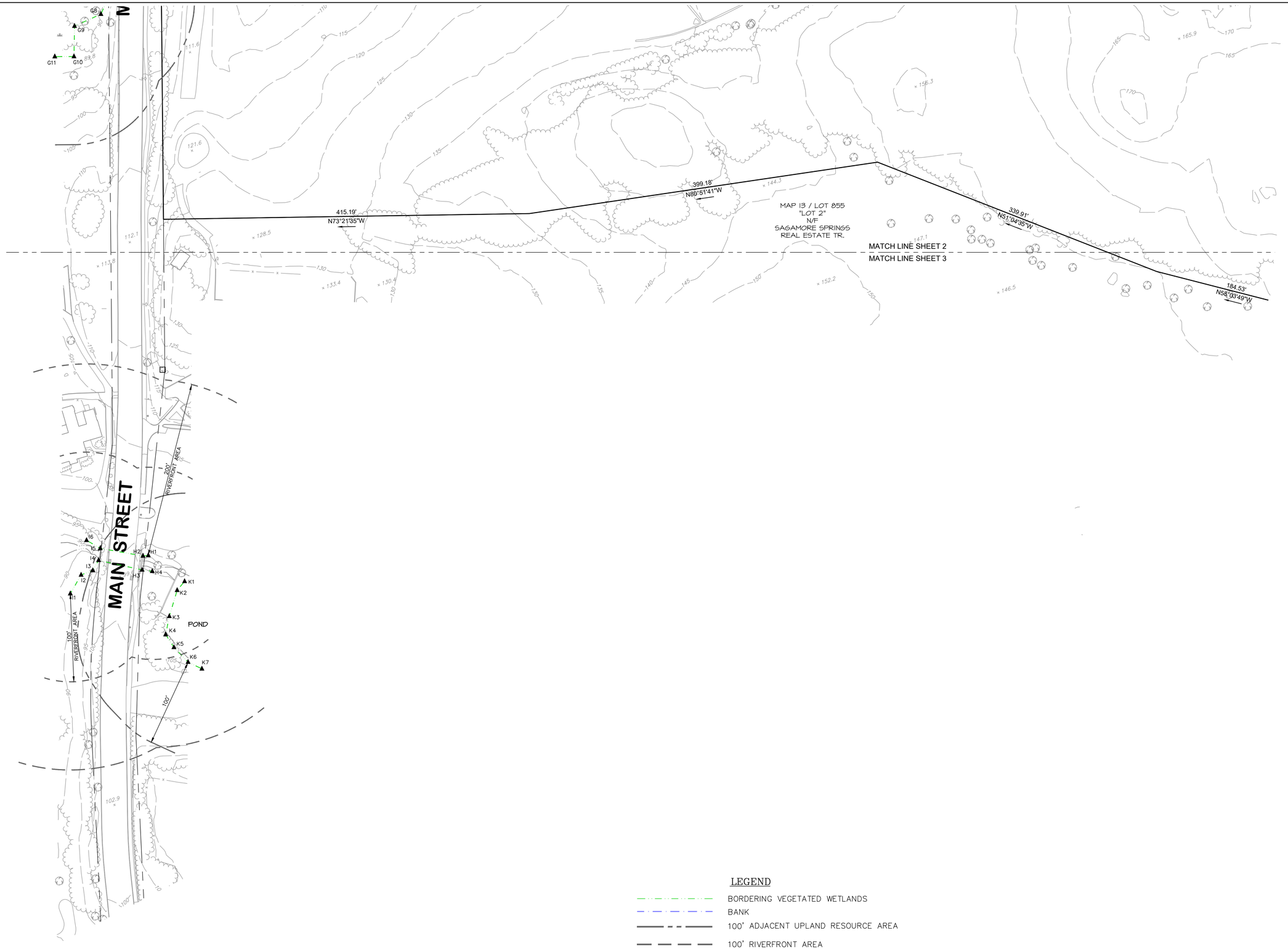
PREPARED FOR
TOLL BROTHERS INC
IN
LYNNFIELD, MASSACHUSETTS

DATE: 8/23/23	SCALE: 1"=50'
CHECKED BY:	DRAWN: SLC
JOB NO.: 8750	FILE NAME: 8750-WS
REF. NO.:	
SHEET NO.: 2 OF 3	



LEGEND

- BORDERING VEGETATED WETLANDS
- BANK
- 100' ADJACENT UPLAND RESOURCE AREA
- 100' RIVERFRONT AREA
- 200' RIVERFRONT AREA
- ▲ B10 WETLAND FLAG

50 0 25 50 FEET 100 200

GRAPHIC SCALE 1 inch = 50 ft.

COMMONWEALTH OF MASSACHUSETTS
SHAWN L. CRAWFORD
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REGISTERED PROFESSIONAL ENGINEER

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REV.	DATE	DESCRIPTION	DRAWN

PLAN OF LAND
TO ACCOMPANY
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PREPARED FOR
TOLL BROTHERS INC
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JOB NO.: 8750	FILE NAME: 8750-WS
REF. NO.:	
SHEET NO.: 3 OF 3	